NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a Part 70 Operating Permit Renewal for General Motors, LLC - Fort Wayne Assembly in Allen County

Part 70 Operating Permit Renewal No.: T003-41020-00036

The Indiana Department of Environmental Management (IDEM) has received an application from General Motors, LLC - Fort Wayne Assembly, located at 12200 Lafayette Center Road, Roanoke, Indiana 46783, for a renewal of its Part 70 Permit issued on November 13, 2014. If approved by IDEM’s Office of Air Quality (OAQ), this proposed renewal would allow General Motors, LLC- Fort Wayne Assembly to continue to operate its existing stationary automobile and light duty truck assembly plant.

A copy of the permit application and IDEM’s preliminary findings are available at:

   Allen County Public Library
   900 Library Plaza
   Fort Wayne, IN 46802

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

A copy of the preliminary findings is also available via IDEM’s Virtual File Cabinet (VFC.) Please go to: http://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

How can you participate in this process?

The date that this notice is posted on IDEM’s website (https://www.in.gov/idem/5474.htm) marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the air pollution impact of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM’s mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number T003-41020-00036 in all correspondence.
Comments should be sent to:

Aida DeGuzman  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for Aida DeGuzman or (317) 233-4972  
Or dial directly: (317) 233-4972  
Fax: (317) 232-6749 attn: Aida DeGuzman  
E-mail: adeguzma@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Aida DeGuzman of my staff at the above address.

Josiah K. Balogun, Section Chief  
Permits Branch  
Office of Air Quality
Part 70 Operating Permit Renewal

OFFICE OF AIR QUALITY

General Motors, LLC - Fort Wayne Assembly
12200 Lafayette Center Road
Roanoke, Indiana 46783

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

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

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

Operation Permit No.: T003-41020-00036
Master Agency Interest ID.: 14990

Issued by:
Josiah Balogun,
Section Chief, Permits Branch
Office of Air Quality

Issuance Date: 
Expiration Date: 

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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 automobile and light duty truck assembly plant.

| Source Address: | 12200 Lafayette Center Road, Roanoke, Indiana 46783 |
| General Source Phone Number: | 260-673-2345 |
| SIC Code: | 3711 (Motor Vehicles and Passenger Car Bodies) |
| County Location: | Allen |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Operating Permit Program |
| | Major Source, under PSD Rules |
| | Major Source, Section 112 of the Clean Air Act |
| | Not 1 of 28 Source Categories |

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

General Motors LLC has two plants in Roanoke, Indiana:

(a) General Motors assembly plant (ID # 003-00036), located at 12200 Lafayette Road, Roanoke.

(b) General Motors warehouse (ID # 003-00094), located at 12808 Stonebridge Road, Roanoke.

IDEM, OAQ finds that the assembly plant and the warehouse meet all three parts of the major source definition and, therefore, are part of the same major source.

This determination was made in this permitting action, Part 70 Operating Renewal No. T 003-41020-00036.

A.3 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:

**General Motors LLC – Lafayette Center Road**

(a) Facility-wide natural gas usage, including combustion units described as follows:

(1) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

(2) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.
Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

(3) Fifty-six (56) space heaters and process heaters using natural gas, identified as 007, with a total heat input capacity of 50.6 MMBtu/hr, using no control, and exhausting to various stacks denoted as stack 13; and

(4) Twenty (20) natural gas fired air supply house burners, constructed in 2001, identified as MOD 1 through MOD 10 (each mod air supply house contains two burners), with emissions exhausted through their respective booth stacks denoted as SO4, and each burner heat input rated at 12.6 MMBtu per hour.

(b) One (1) ELPO Dipping System, identified as 006, constructed in 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;

Under 40 CFR 60, Subpart MM, this is considered an affected facility.

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(c) One (1) Underbody Robotic Sealer Operation, identified as Stone Guard Sealer, approved in 2012 for operation, using no controls, and exhausting indoors;

Under 40 CFR 63, Subpart III, this unit is considered an affected facility.

(d) One (1) Primer Surfacer System, identified as 010, constructed in 1994 and modified in 2010, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;

Under 40 CFR 60, Subpart MM, this is considered an affected facility.

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(e) One (1) Topcoat System, identified as 008, constructed in 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04;

Under 40 CFR 60, Subpart MM, this is considered an affected facility.

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(f) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in 1985, using no controls, and exhausting to stacks 07 and 08;

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(g) One (1) Final Repair Operation, identified as 012, constructed in 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;

Under 40 CFR 63, Subpart III, this is considered an affected facility.
(h) One (1) Maintenance Paint Operation, identified as 013, constructed in 1985, using no control, and exhausting to stack 10;

Under 40 CFR 63, Subpart IIII, this is considered an affected facility.

(i) One (1) Gasoline Fill Operation, identified as 014, constructed in 1985, including tanks 8 and 9, each with a capacity of 20,000 gallons. The vehicles being fueled is equipped with an Onboard Refueling Vapor Recovery (ORVR) System as VOC control; and

(j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

Under 40 CFR 60, Subpart JJJJ, these four (4) generators are considered affected facilities.

Under 40 CFR 63, Subpart ZZZZ, these four (4) generators are considered affected facilities.

(k) The following equipment approved in 2015 for construction to accommodate the T1 Full Size Truck Project:

(1) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, constructed in 2015 and approved in 2017 for modification, using one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 10 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.

Under 40 CFR 60, Subpart MM, this is considered an affected facility.

Under 40 CFR 63, Subpart IIII, this is considered an affected facility.

(2) Miscellaneous Sealers and Adhesives application, identified as 022, approved in 2015 for construction, using the Primer Surfacer, 010 RTO for VOC control, and exhausting to stacks 07 and 08.

(3) Miscellaneous natural gas-fired equipment, identified as 021, with no controls.

   (i) Five (5) ASH Paint Heaters, each with a maximum heat input capacity of 12.5 MMBtu/hr, all venting inside the building.

   (ii) Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr, all venting through stack D 21a.

   (iii) One (1) Locker Room Heater, located at the paint area, with a maximum heat input capacity of 0.875 MMBtu/hr, venting inside the building.

   (iv) One (1) Door Heater, located at the paint area, with a maximum heat input capacity of 0.058 MMBtu/hr, venting inside the building.

   (v) Eight (8) Unit Heaters, located at the paint area, each with a maximum heat input capacity of 0.058 MMBtu/hr, all venting inside the building.

   (vi) Fourteen (14) ELPO Oven Convection Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.
(vii) Fourteen (14) ELPO Oven Radiant Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.

(viii) Forty-three (43) Dock Door Heaters, located at the Body Shop and Material Room, thirty-seven (37) with a maximum heat input capacity of 0.40 MMBtu/hr, each, and six (6) with a maximum heat input capacity of 0.60 MMBtu/hr, each, all venting inside the building.

(ix) Twenty-six (26) ASH Heaters, located at the Body Shop and Material Room, twenty (20) with a maximum heat input capacity of 1.805 MMBtu/hr, each, four (4) with a maximum heat input capacity of 1.9 MMBtu/hr, each, and two (2) with a maximum heat input capacity of 2.0 MMBtu/hr, each, all venting inside the building.

(l) Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.40 MMBtu/hr, and exhausting indoors.

(m) Fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, approved in 2016 for construction, each with a maximum heat input capacity of 0.40 MMBtu/hr, and exhausting indoors.

(n) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.645 MMBtu/hr, and exhausting indoors. [Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

(o) Forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, exhausting indoors. The following units utilize steam from boilers ID 004 and 005 and are currently not listed in the permit since they do not emit any air pollutant:

1. Paint Bld ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

2. Paint Bld ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

3. Paint Bld ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.

4. Paint Bld ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.

5. Paint Bld ASH #16, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.

6. Paint Bld ASH #17, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.

7. Paint Bld ASH #18, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.
(8) Paint Bld ASH #19, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

(9) Paint Bld ASH #20, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

(10) Paint Bld ASH #21, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

(11) Paint Bld ASH #33, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.

(12) Paint Bld ASH #34, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.

(13) Paint Bld ASH #35, approved for construction in 2016, with a maximum heat input capacity of 4.219 MMBtu/hr.

(14) Paint Bld ASH #36, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.

(15) Paint Bld ASH #37, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.447 MMBtu/hr.

(16) Bodyshop ACU #1, approved in 2016 for construction, with a maximum heat input capacity of 0.75 MMBtu/hr.

(17) Bodyshop ACU #2, approved in 2016 for construction, with a maximum heat input capacity of 0.35 MMBtu/hr.

(18) Bodyshop ACU #3, approved in 2016 for construction, with a maximum heat input capacity of 0.35 MMBtu/hr.

(19) Mod Obs ASH #1, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(20) Mod Obs ASH #2, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas with a maximum heat input capacity of 24.0 MMBtu/hr.

(21) Mod Obs ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(22) Mod Obs ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.
(23) Mod Obs ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 24.0 MMBtu/hr.

(24) Mod Obs ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(25) Mod Obs ASH #7, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(26) Mod Obs ASH #8, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(27) Mod Obs ASH #9, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(28) Mod Obs ASH #10, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(29) 206 ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 7.5 MMBtu/hr.

(30) Prime Cleanroom ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.0 MMBtu/hr.

(31) 216 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

(32) 216 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

(33) 216 ASH #3 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

(34) 216 ASH #4 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

(35) 217 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.0 MMBtu/hr.

(36) 217 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.0 MMBtu/hr.
(37) 217 ASH #3 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

(38) 217 ASH #4 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

(39) 241 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.0 MMBtu/hr.

(40) 241 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

(41) 243 ASH #1 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.0 MMBtu/hr.

(42) 243 ASH #2 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

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

This stationary source has the following insignificant activities, as defined in 326 IAC 2-7-1(21).

(a) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations [326 IAC 6-3-2].

(b) One (1) Body Shop - Grinding and Machining, associated with the T1 Full Size Truck Project, approved in 2015 for construction.

(c) One (1) Pre-Treatment System, associated with the T1 Full Size Truck Project, approved in 2015 for construction.

(d) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), 7 (automatic transmission fluid), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984.

Under 40 CFR 63, Subpart III, tanks 1, 2, and the two waste purge solvent tank are considered affected facilities. Tank 7 is not subject to 40 CFR 63, Subpart III.

(e) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

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

(g) 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.
Under 40 CFR 63, Subpart EEEE, this storage tank is considered an affected facility.

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

Under 40 CFR 63, Subpart EEEE, this storage tank is considered an affected facility.

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

(i) Closed loop heating and cooling systems.

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

(k) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.

(l) Noncontact cooling tower systems with natural draft cooling towers not regulated under a NESHAP.

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

(n) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2].

(o) Paved and unpaved roads and parking lots with public access.

(p) 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.

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

(r) On-site fire and emergency response training approved by the department.

(s) Diesel generators not exceeding 1600 horsepower:

(1) One (1) diesel-fired emergency generator, identified as Emergency Generator 2, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG2.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 2 is considered an affected facility.

(2) One (1) diesel-fired emergency generator, identified as Emergency Generator 3, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG3.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 3 is considered an affected facility.

(3) One (1) diesel-fired emergency generator, identified as Emergency Generator 5, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG5.
Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 5 is considered an affected facility.

(4) One (1) diesel-fired emergency generator, identified as Emergency Generator PHDZL, constructed in 1985, with a maximum output rating of 1515 horsepower, using no controls, and exhausting through Stack EGPHDZL.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator PHDZL is considered an affected facility.

(t) Other emergency equipment as follows: Stationary fire pumps.

(1) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 1, constructed in 1985, with a maximum output rating of 302 horsepower, using no controls, and exhausting through Stack FP1.

Under 40 CFR 63, Subpart ZZZZ, Fire Pump 1 is considered an affected facility.

(2) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and each exhausting through Stack FP2.

Under 40 CFR 60, Subpart IIII, Fire Pump 2 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Fire Pump 2 is considered an affected facility.

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

(v) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(w) Other activities or categories with emissions less than insignificant thresholds:

(1) Fluorocarbon R-134A Storage Tanks (Main Plant);

(2) Sulfuric Acid Storage Tank (Wastewater Treatment Plant);

(3) Grinding Operations (Light Duty Truck Body Shop) [326 IAC 6-3-2];

(4) Pre-phosphate Washers (Light Duty Truck Assembly Line);

(5) Multi-stage Phosphate Systems (Light Duty Truck Assembly Line);

(6) Feather Dusters (Light Duty Truck Assembly Line);

(7) Vehicle washers prior to shipping (Light Duty Truck Assembly Line);

(8) Spot sanding and painting (Light Duty Truck Assembly Line);

(9) Bulk Storage Material Transferring Equipment; i.e. pumps, valves, pipes, flanges, etc. (Light Duty Truck Assembly Line);

(10) Vehicle Fluid Fill Operations; i.e. engine oil, windshield, transmission, engine coolant, power steering fluid, brake fluid, and air conditioning refrigerant (Light Duty Truck Assembly Line);

(11) Engine Sub-assembly Lines (Light Duty Truck Assembly Line);
(12) Radiator Sub-assembly Lines (Light Duty Truck Assembly Line);
(13) Trim Assembly Lines (Light Duty Truck Assembly Line);
(14) Maintenance Shops (Light Duty Truck Assembly Line);
(15) Gasoline/Diesel Tank Assembly Areas (Light Duty Truck Assembly Line);
(16) Mechanical Repair Stalls (Light Duty Truck Assembly Line);
(17) Final Vehicle Inspection (Care Building);
(18) Wastewater Treatment Plant;
(19) Storage Tanks;
(20) Body Washers;
(21) Mig Welding [326 IAC 6-3-2]; and
(22) Diesel Pumps.

(x) Twelve (12) parts washers that use water-based material containing no VOC or HAPs.

(y) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.

Under 40 CFR 60, Subpart IIII, Emergency Generator 9 is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 9 is considered an affected facility.

(z) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

Under 40 CFR 60, Subpart JJJJ, Emergency Generator 6 is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 6 is considered an affected facility.

(aa) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

Under 40 CFR 60, Subpart JJJJ, Emergency Generator 7 is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 7 is considered an affected facility.

(bb) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.
Under 40 CFR 60, Subpart JJJJ, Emergency Generator 8 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 8 is considered an affected facility.

(cc) Repair activities: Heat exchanger cleaning and repair.

(dd) Methanol windshield washer fluid storage tank, with a capacity of 10,000 gallons.

Under 40 CFR 63, Subpart EEEE, this storage tank is considered an affected facility.

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(a) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting outdoors.

Under 40 CFR 60, Subpart IIII, this generator is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, this generator is considered an affected facility.

(b) Five (5) natural gas-fired heated make-up air units, identified as MAU-1 through MAU-5, constructed in 2018, with a combined heat input capacity of 13.48 MMBtu per hour, uncontrolled, and exhausting outdoors.

(c) Four (4) Diesel fuel storage tanks, identified as T1 through T4, constructed in 2018, each with a maximum capacity of 550 gallons.

(d) Paved Roads

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

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

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

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

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

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]
(a) This permit, T003-41020-00036, 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:
Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

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

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

The Permittee shall implement the PMPs.

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:

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

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

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.

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).

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]

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.

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 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.
General Motors, LLC - Fort Wayne Assembly
Roanoke, Indiana
Permit Reviewer: Aida DeGuzman

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).

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)]

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)]

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

All terms and conditions of permits established prior to T003-41020-00036 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.

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.

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).

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]

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).

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)]

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(42). 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-18.J)
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(37)) 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.
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 six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

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

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

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

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

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

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

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

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

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

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

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

(a) For new units:

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented within 90 days of the date of initial start-up.

(b) For existing units:

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

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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.
The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

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

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

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

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

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

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

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

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

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

(l) 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) CAM Response to excursions or exceedances.

(a) 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.

(b) 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 Quality Improvement Plan (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)(c) 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)(c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.
(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

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

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

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

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

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

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

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(33) ("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.18 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6][326 IAC 2-2][326 IAC 2-3]

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

(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, where applicable:

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

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

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

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

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

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

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

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

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

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ. A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

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

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

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

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

(b) The address for report submittal is:

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

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

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

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

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

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

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

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

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

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

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

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.
SECTION D.1 EMISSION UNIT OPERATION CONDITIONS

Emission Unit Description:

(a) Facility-wide natural gas usage, including combustion units described as follows:

(1) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

(2) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

(3) Fifty-six (56) space heaters and process heaters using natural gas, identified as 007, with a total heat input capacity of 50.6 MMBtu/hr, using no control, and exhausting to various stacks denoted as stack 13; and

(4) Twenty (20) natural gas fired air supply house burners, constructed in 2001, identified as MOD 1 through MOD 10 (each mod air supply house contains two burners), with emissions exhausted through their respective booth stacks denoted as SO4, and each burner heat input rated at 12.6 MMBtu per hour.

(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 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Nitrogen Oxides (NOx) [326 IAC 2-2]

Pursuant to Permit PSD (02) No. 1575, issued on November 30, 1984; PSD CP (003) No. 2000, issued on September 9, 1991; and 326 IAC 2-2-3 (Control Technology Review; Requirements), the Permittee shall comply with the following PSD BACT:

(a) The NOx emissions from Boiler 004 shall not exceed 0.098 pound/MMBtu input from the combustion of natural gas.

(b) The use of Flue gas recirculation and low NOx burners are considered PSD BACT for this emission unit.

Compliance with this limitation, shall satisfy the requirements of 326 IAC 2-2, PSD.
D.1.2 NOx PSD Credit Limitations [326 IAC 2-2]

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

(a) The NOx emissions from Boiler 005 shall not exceed 100 pounds per million cubic feet (lb/MMCF) of natural gas.

(b) The total natural gas usage to Boiler 005 shall not exceed 1,902.2 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits is equivalent to 95.1 tons of NOx emissions per year, with a reduction of 65 tons per year of NOx from the removal of two (2) coal-fired boilers Nos. 1 and 2, shall limit the net emission increase from this boiler to less than the PSD significant emission rate (SER) of 40 tons of NOx per year and renders the requirements of 326 IAC 2-2 Prevention of Significant Deterioration not applicable to the 1992 modification permitted under CP003-2524.

D.1.3 Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, and pursuant to SSM No. 003-12830-00036, issued March 5, 2001, the Permittee shall comply with the following:

(a) NOx emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed 100 pounds of NOx per million standard cubic feet of natural gas.

(b) The natural gas usage for the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed six hundred ten (610) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit the NOx emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) to less than forty (40) tons per year and render the requirements of 326 IAC 2-2, PSD not applicable to this 2001 modification.

D.1.4 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each of the two 228 MMBtu/hour boilers, identified as Boilers 004 and 005, shall be limited as follows:

(a) Boiler 004 shall be limited to 0.22 pound per million BTU heat input.

(b) Boiler 005 shall be limited to 0.20 pound per million BTU heat input.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for Boilers 004 and 005. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.1.6 Continuous Emission Monitoring [326 IAC 2-2][326 IAC 3-5][40 CFR 60, Subpart Db]

(a) Pursuant to 326 IAC 2-2, 326 IAC 3-5, and 326 IAC 12, the Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment and shall continuously monitor and record the following parameters to demonstrate compliance with Condition D.1.1 and D.1.4:

1. Nitrogen oxide concentration for Boilers 004 and 005, and
2. Opacity for Boilers 004 and 005, unless the Permittee uses one of the following to meet
compliance monitoring requirements:

(A) Boiler 004 and Boiler 005 use a PM CEMS to monitor PM emissions; or

(B) Boiler 004 and Boiler 005 burn only liquid (excluding residual oil) or gaseous fuels with potential SO2 emissions of 0.060 lb/MMBtu or less and do not use a post-combustion technology to reduce SO2 or PM emissions.

(C) Boiler 004 and Boiler 005 do not use post-combustion technology (except a wet scrubber) for reducing PM, SO2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from Boiler 004 and Boiler 005 are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. The Permittee shall demonstrate compliance by the following:

(i) A CO CEM shall be installed, certified, maintained, and operated in accordance with Condition D.1.6(c) and (d).

(ii) The Permittee shall calculate the one (1) hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the boiler. The twenty-four (24) hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(iii) The Permittee shall evaluate the preceding twenty-four (24) hour average CO emission level each steam generating unit operating day excluding periods of boiler startup, shutdown, or malfunction. If the twenty-four (24) hour average CO emission level is greater than 0.15 lb/MMBtu, the Permittee shall initiate an investigation of the relevant equipment and control systems within twenty-four (24) hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the twenty-four (24) hour average CO emission level to 0.15 lb/MMBtu or less.

(iv) The Permittee shall record the CO measurements and calculations performed and any corrective actions taken. The record of corrective action taken must include the date and time during which the twenty-four (24) hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(b) The continuous monitoring systems have been installed and operational prior to conducting the performance tests. A monitoring protocol has been performed in accordance with the applicable procedures under 40 CFR 60, Appendix B, Performance Specification 1 and 326 IAC 3-5.

(c) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.

(d) In instances of CEM downtime, compliance with the NOx emission limits established in Conditions D.1.1 and D.1.2 shall be determined by the use of the appropriate AP-42 emission factors. Compliance with the particulate emission limits contained in Condition D.1.4 shall be determined by burning clean fuels such as natural gas or landfill gas.
(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60, Subpart Db.

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

D.1.7 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1, D.1.2, D.1.3 and D.1.6, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the NOx and opacity emission limits established in Conditions D.1.1, D.1.2, and D.1.3.

(1) Calendar dates covered in the compliance determination period;
(2) Heat input for Boilers 004 and 005;
(3) Amount of natural gas usage for Boilers 004 and 005 and amount of landfill gas usage for Boiler 004;
(4) Output of the NOx continuous emissions monitoring systems on Boilers 004 and 005 and record keeping required pursuant to 326 IAC 3-5-6;

(b) To document the compliance status with Condition D.1.3, the Permittee shall maintain records of the natural gas usage to the twenty (20) natural gas fired burners (MOD 1 - MOD 10) monthly.

(c) In the event that a breakdown of a continuous emission monitoring equipment system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(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.1.8 Reporting Requirements

(a) A quarterly summary of the information to document the compliance status with Condition D.1.2 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the semi-annual period being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) A semi-annual summary of the information to document the compliance status with Condition D.1.3 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the semi-annual period being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) The Permittee shall submit NOx CEM performance audit reports pursuant to 326 IAC 3-5-5(e).
SECTION D.2  EMISSION UNIT OPERATION CONDITIONS

Emission Unit Description:

(b) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;

(c) One (1) Underbody Robotic Sealer Operation, identified as Stone Guard Sealer, approved in 2012 for operation, using no controls, and exhausting indoors;

(f) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;

(g) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls; and

(h) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10.

(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 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2-3]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2-3 (Control Technology Review; Requirements), the Permittee shall comply with the following VOC BACT limits:

The total VOC usage from ELPO Dipping System (006), Underbody Robotic Sealer, identified as Stone Guard Sealer, Miscellaneous Sealers/Adhesives/Additives/Solvents (009), and Final Repair Operation (012), combined with the potential to emit VOC from all the other surface coatings operations and cleaning operations, including the Primer Surfacer System (010), Topcoat System (008), and Maintenance Paint Operation (013); shall be limited such that total source’s VOC potential to emit does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

Compliance with condition shall satisfy the requirements of 326 IAC 2-2, PSD rules.

D.2.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2][326 IAC 8-1-2]

(a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from ELPO Dipping System (006) and Final Repair Operation (012) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed:

1. 0.23 kilograms per liter of coating (1.9 pounds per gallon), excluding water, for the ELPO Dipping System (006).

2. 0.58 kilograms per liter of coating (4.8 pounds per gallon), excluding water, for the Final Repair Operation (012).

(b) Pursuant to 326 IAC 8-1-2(a)(5), when using an equivalent emission limitation to comply with Condition D.2.2(a)(1), the VOC emissions from the ELPO Dipping System (006) thermal oxidizers shall be limited to no greater than 2.6 pounds per gallon solids deposited.
D.2.3 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator for the Miscellaneous Sealers and Adhesives (009) and Underbody Robotic Sealer Operation (Stone Guard Sealer).

(b) Pursuant to 326 IAC 8-1-2(a)(5), when using an equivalent emission limitation to comply with Condition D.2.3(a), the VOC emissions from the Miscellaneous Sealers and Adhesives (009) and the Underbody Robotic Sealer Operation (Stone Guard Sealer) shall be limited to no greater than 1.34 kilograms of VOC per liter solids deposited (11.2 pounds per gallon solids deposited) based on an actual measured transfer efficiency greater than 60%.

D.2.4 Work Practices [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), the Permittee shall use the following work practices to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, clean materials, and waste materials, including, but not limited to, the following:

(a) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

(b) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(c) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(d) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(e) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.2.5 Particulate Emission Limitations, Work Practices, and Control Technologies [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate emissions from the Final Repair Operation (012) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

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

A Preventive Maintenance Plan is required for the ELPO Dipping System (006) and its 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 [326 IAC 2-7-5(1)]

D.2.7 PSD VOC BACT Compliance Equation

Compliance with the VOC PSD BACT limit in Condition D.2.1 shall be determined within 30 days of the end of each month based on the following:

For ELPO Dipping System (006), Primer Surfacer System (010), Underbody Robotic Sealer, identified as Stone Guard Sealer, Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013):

VOC emissions (tons, 12 consecutive months) = VOC emissions in previous eleven (11) months, tons +
monthly VOC usage (uncontrolled), tons + monthly VOC emissions (after controls), tons

where:
monthly VOC emissions (after controls), tons = monthly VOC input (tons) x (1- overall control efficiency/100);

where:
overall control efficiency (%) = capture efficiency (%) x destruction efficiency (%)

D.2.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

(a) Compliance with the VOC contents contained in Conditions D.2.2 and D.2.3 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.

(b) Pursuant to 326 IAC 8-1-2(a), the emission limitations specified in D.2.2(a), shall be achieved through one or any combination of thermal incineration, higher solids (low solvent) coatings, water borne coatings and/or daily averaging.

(c) Compliance with the equivalent emission limitation in Condition D.2.2(b), shall be determined according to the following equation:

\[ E = \frac{L}{[(1-(L/D)) \cdot T]} \]

Where:

\( E \) = Actual emissions in pounds of VOC per gallon of coating solids deposited

\( L \) = Actual VOC content in pounds of VOC per gallon of coating, as applied, excluding water and nonphotochemically reactive hydrocarbons

\( D \) = Actual density of the VOC in the coating in pounds per gallon of VOC

(d) When a combination of compliant and non-compliant coatings are utilized and daily averaging is used to comply with the emission limitations in Condition D.2.2(a), one of the following equations shall be used to determine the volume weighted average of coatings on a daily basis:

(1) When a thermal oxidizer is used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:

\[ A = \frac{\sum_{i=1}^{n} C_i U_i (1 - (C \cdot D \cdot R \cdot E))}{\sum_{i=1}^{n} U_i (1 - D_i)} \]

Where:

\( A \) = daily volume weighted average, lb VOC/gal, less water

\( C \) = VOC content of coating i, lb VOC/gal, less water

\( U \) = actual coating i usage, gal/day

\( D \) = coating i volume % water
n = no. of coatings used during the day

CE = capture efficiency of the emission system vented to the thermal oxidizer

DRE = destruction/removal efficiency of thermal oxidizer

(2) When a thermal oxidizer is not used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:

\[
A = \frac{\sum_{i=1}^{n} C_i U_i}{\sum_{i=1}^{n} U_i}
\]

Where:

A = daily volume weighted average, lb VOC/gal, less water

C = VOC content of coating i, lb VOC/gal, less water

U = actual coating i usage, gal/day

n = no. of coatings used during the day

(e) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.2.2(a)(1), the overall efficiency of the ELPO Dipping System (006) thermal oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

\[
O = 100 \times \frac{(V - E)}{V}
\]

Where:

V = The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;

E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied, where \( E = \frac{L}{1 - (L / D)} \), and

L = Applicable emission limit in pounds of VOC per gallon of coating.

D = Density of VOC in coating in pounds per gallon of VOC.

E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance; and

O = Equivalent overall efficiency of the capture system and control device as a percentage.
(e) Pursuant to 326 IAC 8-1-2(a) the emission limitations specified in D.2.3(a), shall be achieved through one or any combination of higher solids (low solvent) coatings, water borne coatings and/or an equivalent emission limitation.

(g) Compliance with the equivalent emission limitation in Condition D.2.3(a), shall be determined according to the following equation:

\[ E = \frac{L}{[(1 - (L/D)) \cdot T]} \]

Where:

- **E** = Actual emissions in pounds of VOC per gallon of coating solids deposited
- **L** = Actual VOC content in pounds of VOC per gallon of coating, as applied, excluding water and nonphotochemically reactive hydrocarbons
- **D** = Actual density of the VOC in the coating in pounds per gallon of VOC
- **T** = Actual measured transfer efficiency

D.2.9 PM and VOC Controls

(a) In order to assure compliance with Condition D.2.5, the dry filters shall always be in place and operating at all times the Final Repair Operation (012) is in operation.

(b) Pursuant to 326 IAC 8-1-2(a) and in order to assure compliance with Conditions D.2.1 and/or D.2.2, the Permittee shall operate the thermal incinerators #1 - #3 for the ELPO Dipping System (006) at all times the processes that they are controlling are in operation, if the abatement credit is used to demonstrate compliance with Conditions D.2.1 and/or D.2.2.

D.2.10 Testing Requirements

The following facilities are required to stack test, when used to demonstrate compliance with Conditions D.2.1 and/or D.2.2, as follows:

(a) Not later than two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for one (1) of the thermal incinerators, #1 - #3, controlling the ELPO Dipping System (006) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing on an incinerator shall not be repeated until each one has been tested.

(b) The Permittee shall use the determined capture and destruction efficiencies from the most recent performance test for determining compliance when the control devices are used to demonstrate compliance with Conditions D.2.1 and/or D.2.2. 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.

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

D.2.11 Thermal Oxidizer Temperature [40 CFR 64]

The following requirements shall apply only if the VOC reduction credit for the incinerators is used to demonstrate compliance with Conditions D.2.1 and/or D.2.2:

(a) A continuous monitoring system shall be calibrated and maintained on each thermal and catalytic oxidizer for measuring operating temperature. For the purpose of this condition,
continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.2.1 and/or D.2.2.

(c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent compliant 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 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.2.12 Parametric Monitoring [40 CFR 64]

The following requirements shall apply only if the VOC reduction credit for the thermal incinerators is used to demonstrate compliance with Conditions D.2.1 and/or D.2.2:

The system that continuously monitors proper operation of the thermal incinerators shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. 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.2.13 Record Keeping Requirements

(a) To document the compliance status with Conditions D.2.1, D.2.2, D.2.3, D.2.7, D.2.8, D.2.11, and D.2.12, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.2.1, D.2.2, and D.2.3.

(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 documents 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) A log of the dates of use of each coating.

(4) A log of when the thermal incinerators are used to demonstrate compliance with an emission limitation.

(5) The calculated daily volume weighted average in pounds of VOC per gallon, less water, if applicable.

(6) The monthly cleanup solvent usage.

(7) The total VOC usage and emissions for each month.

(8) During periods when the thermal incinerators are used to demonstrate compliance with
an emission limitation:

(A) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(B) Records of the dates of any thermal incinerator system alarms and corrective actions taken.

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

D.2.14 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.1 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).
SECTION D.3  EMISSION UNIT OPERATION CONDITIONS

Emission Unit Description:

(d) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, approved in 2010 for modification, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above.

(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.3.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2-3]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2-3 (Control Technology Review; Requirements), the Permittee shall comply with the following VOC BACT limits:

The total VOC usage from Primer Surfacer System (010), combined with the potential to emit VOC from all the other surface coatings operations and cleaning operations, including ELPO Dipping System (006), Underbody Robotic Sealer, identified as Stone Guard Sealer, Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Topcoat System (008), Final Repair Operation (012), and Maintenance Paint Operation (013); shall be limited such that total source’s VOC potential to emit does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

Compliance with condition shall satisfy the requirements of 326 IAC 2-2, PSD rules.

D.3.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2][326 IAC 8-1-2]

(a) Pursuant to 326 IAC 8-2-2(b)(2) (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from Primer Surfacer System (010) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water.

(b) Pursuant to 326 IAC 8-1-2(a)(5), VOC emissions as allowed in D.3.2(a)(2) from the Primer Surfacer System (010) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be determined by use of procedures found in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", EPA-450/3-88-018, December 1988, or by an alternative method approved by the Commissioner.

(c) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.3.2(a), the overall efficiency of the Primer Surfacer System (010) thermal oxidizer shall be no less than the equivalent overall efficiency of 21.5%.

D.3.3 Particulate Emission Limitations, Work Practices, and Control Technologies [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from Primer Surfacer System (010) shall be controlled by a dry particulate filter, water wash, or an equivalent control device at all times that the process is operating. The Permittee shall operate the control device in accordance with manufacturer's specifications.
D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the Primer Surfacer System (010), and its 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 [326 IAC 2-7-5(1)]

D.3.5 VOC PSD BACT Compliance Equation

Compliance with the VOC PSD BACT limit in Condition D.3.1 shall be determined within 30 days of the end of each month based on the following:

For ELPO Dipping System (006), Primer Surfacer System (010), Underbody Robotic Sealer, identified as Stone Guard Sealer, Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013):

\[ \text{VOC emissions (tons, 12 consecutive months) = VOC emissions in previous eleven (11) months, tons + monthly VOC usage (uncontrolled), tons + monthly VOC emissions (after controls), tons} \]

where:

\[ \text{VOC emissions (after controls), tons = VOC input (tons) x (1 - overall control efficiency/100)} \]

where:

\[ \text{overall control efficiency} (%) = \text{capture efficiency} (%) \times \text{destruction efficiency} (%) \]

D.3.6 Volatile Organic Compounds (VOC)

(a) Compliance with the VOC contents contained in Condition D.3.2 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.

(b) Pursuant to 326 IAC 8-1-2(a), the emission limitation specified in D.3.2(a), shall be achieved through one or any combination of thermal incineration, higher solids (low solvent) coatings, water borne coatings, and/or an equivalent emission limitation.

(d) Compliance with the equivalent overall efficiency (O) of the Primer Surfacer System (010) thermal oxidizer to demonstrate compliance with Condition D.3.2(a) shall be calculated by the following equation:

\[ O = 100 \times \frac{V - E}{V} \]

Where:

\[ V = \text{The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;} \]

\[ E = \text{Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied;} \]

\[ O = \text{Equivalent overall efficiency of the capture system and control device as a percentage.} \]

\[ O = \frac{6.50 - 5.1}{6.5} \times 100 = 21.5\% \]
D.3.7 PM and VOC Controls

(a) In order to assure compliance with Condition D.3.3, the water wash system shall operate at all times the Primer Surfacer System (010) is in operation.

(b) Pursuant to 326 IAC 8-1-2(a) and in order to assure compliance with Conditions D.3.1 and D.3.2, the Permittee shall operate the regenerative thermal oxidizer for the Primer Surfacer System (010) at all times the processes that it controls are in operation, if the abatement credit is used to demonstrate compliance with Conditions D.3.1 and/or D.3.2.

D.3.8 Testing Requirements [326 IAC 2-1.1-11]

The following facilities are required to stack test when used to demonstrate compliance with Conditions D.3.1 and/or D.3.2 as follows:

(a) Not later than two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for the regenerative thermal oxidizer controlling the Primer Surfacer System (010) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

(b) The Permittee shall use the determined capture and destruction efficiencies from the most recent performance test for determining compliance when the control device is used to demonstrate compliance with Conditions D.3.1 and/or D.3.2. 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.

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

D.3.9 Thermal Oxidizer Temperature [40 CFR 64]

The following requirements shall apply only if the regenerative thermal oxidizer is used to demonstrate compliance with Conditions D.3.1 and/or D.3.2:

(a) A continuous monitoring system shall be calibrated and maintained on the regenerative thermal oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.3.1 and/or D.3.2.

(c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent valid compliant 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 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.3.10 Parametric Monitoring [40 CFR 64]

The following requirements shall apply only if the VOC reduction credit for the thermal oxidizer is used to demonstrate compliance with Conditions D.3.1 and/or D.3.2:

The system that continuously monitors proper operation of the thermal oxidizer shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. 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.3.11 Monitoring [40 CFR 64]

(a) The condition of the Primer Surfacer System (010) waterwash system shall be monitored through the use of alarms on the water pumps that feed the systems. 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) Semi-annual inspections shall be performed of the coating emissions from stack 03 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission 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.3.12 Record Keeping Requirements

(a) To document the compliance status with Conditions D.3.1, D.3.2, D.3.5, D.3.6, D.3.9, and D.3.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.3.1 and D.3.2.

(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 documents 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) A log of the dates of use of each coating.

(4) A log of when the regenerative thermal oxidizer is used to demonstrate compliance with an emission limitation.

(5) The monthly cleanup solvent usage.

(6) The total VOC usage and emissions for each month.

(7) During periods when the regenerative thermal oxidizer is used to demonstrate compliance with an emission limitation:

(A) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(B) Records of the dates of any thermal oxidizer system alarms and corrective actions taken.

(b) To document the compliance status with Conditions D.3.3 and D.3.11, the Permittee shall maintain records of the dates of any water wash alarms and corrective actions taken and shall
maintain a log of semi-annual inspections.

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

D.3.13 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.3.1 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).
SECTION D.4  EMISSION UNIT OPERATION CONDITIONS

Emission Unit Description:

(e) One (1) Topcoat System, identified as 008, constructed in August 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtus/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtus/hr each, using waterwash as PM control, and exhausting to stack 04.

(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.4.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2-3]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2-3 (Control Technology Review; Requirements), the Permittee shall comply with the following VOC BACT limits:

The total VOC usage from Topcoat System (008), combined with the potential to emit VOC from all the other surface coatings operations and cleaning operations, including Primer Surfacer System (010), ELPO Dipping System (006), Underbody Robotic Sealer, identified as Stone Guard Sealer, Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013); shall be limited such that total source's VOC potential to emit does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

Compliance with condition shall satisfy the requirements of 326 IAC 2-2, PSD rules.

D.4.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2][326 IAC 8-1-2]

(a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from Topcoat System (008) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water.

(b) Pursuant to 326 IAC 8-1-2(a)(5), VOC emissions as allowed in D.4.2(a) from the Topcoat System (008) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be determined by use of procedures found in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", EPA-450/3-88-018, December 1988, or by an alternative method approved by the Commissioner.

D.4.3 Particulate Emission Limitations, Work Practices, and Control Technologies [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate emissions from the Topcoat System (008) shall be controlled by a dry particulate filter, water wash, or an equivalent control device at all times that the process is operating. The Permittee shall operate the control device in accordance with manufacturer's specifications.

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the Topcoat System (008), and its 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 [326 IAC 2-7-5(1)]

D.4.5 PSD VOC BACT Compliance Equation

Compliance with the VOC PSD BACT limit in Condition D.4.1 shall be determined within 30 days of the end of each month based on the following:

For ELPO Dipping System (006), Primer Surfacer System (010), Underbody Robotic Sealer, identified as Stone Guard Sealer, Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013):

VOC emissions (tons, 12 consecutive months) = VOC emissions in previous eleven (11) months, tons + monthly VOC usage (uncontrolled), tons + monthly VOC emissions (after controls), tons

where:
monthly VOC emissions (after controls), tons = monthly VOC input (tons) x (1 - overall control efficiency/100);

where:
overall control efficiency (%) = capture efficiency (%) x destruction efficiency (%)

D.4.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

(a) Compliance with the VOC contents contained in Condition D.4.2 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.

(b) Pursuant to 326 IAC 8-1-2(a), the emission limitation specified in D.4.2(a), shall be achieved through one or any combination of catalytic incineration, higher solids (low solvent) coatings, water borne coatings, and/or an equivalent emission limitation.

(c) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.4.2(a), the overall efficiency of the Topcoat System (008) catalytic oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

\[ O = 100 \times (V - E) / V \]

Where:

\[ V = \text{The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;} \]

\[ E = \text{Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied; and} \]

\[ O = \text{Equivalent overall efficiency of the capture system and control device as a percentage.} \]

D.4.7 PM and VOC Controls

(a) In order to assure compliance with Condition D.4.3, the water wash shall be operated at all times the Topcoat System (008) is in operation.
(b) Pursuant to 326 IAC 8-1-2(a), and in order to assure compliance with Conditions D.4.1 and/or D.4.2 if the abatement credit is used to demonstrate compliance with these conditions, the Permittee shall operate the catalytic oxidizers #1 - #10 for the Topcoat System (008) at all times the processes that they are controlling are in operation.

D.4.8 Testing Requirements [326 IAC 2-1.1-11]

The following facilities are required to stack test, when the oxidizer abatement credit is used to demonstrate compliance with Conditions D.4.1 and/or D.4.2, as follows:

(a) Not later than two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC destruction efficiency for two (2) of the 7.5 MMBtu/hr catalytic oxidizers and one (1) of the 9.5 MMBtu/hr catalytic oxidizers controlling the Topcoat System (008) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing on a catalytic oxidizer shall not be repeated until each one has been tested.

(b) The Permittee shall use the determined destruction efficiencies from the most recent performance test for determining compliance when the control devices are used to demonstrate compliance with Conditions D.4.1 and/or D.4.2. 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.

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

D.4.9 Catalytic Oxidizer Temperature [40 CFR 64]

The following requirements shall apply only if the VOC reduction credit from the catalytic oxidizers is used to demonstrate compliance with Conditions D.4.1 and/or D.4.2:

(a) A temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed. A continuous monitoring system shall be calibrated and maintained on each catalytic oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.4.1 and/or D.4.2.

(c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent compliant 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 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.4.10 Parametric Monitoring [40 CFR 64]

The following requirements shall apply only if the VOC reduction credit for the catalytic oxidizers is used to demonstrate compliance with Conditions D.4.1 and/or D.4.2:

The system that continuously monitors proper operation of the catalytic oxidizers shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. 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.4.11 Monitoring [40 CFR 64]

(a) The condition of the Topcoat System (008) waterwash system shall be monitored through the use of alarms on the water pumps that feed the systems. 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) Semi-annual inspections shall be performed of the coating emissions from stack 04 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission 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.4.12 Record Keeping Requirements

(a) To document the compliance status with Conditions D.4.1, D.4.2, D.4.5, D.4.6, D.4.9, and D.4.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.1 and D.4.2.

(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 documents 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) A log of the dates of use of each coating.

(4) A log of when the catalytic oxidizers are used to demonstrate compliance with an emission limitation.

(5) The monthly cleanup solvent usage.

(6) The total VOC usage and emissions for each month.

(7) During periods when the catalytic oxidizers are used to demonstrate compliance with an emission limitation:

   (A) The continuous temperature records (on a 3-hour average basis) for the catalytic oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

   (B) Records of the dates of any catalytic oxidizer system alarms and corrective actions taken.

(b) To document the compliance status with Conditions D.4.3 and D.4.11, the Permittee shall maintain records of the dates of any water wash alarms and corrective actions taken and shall maintain a log of semi-annual inspections.

(c) The Permittee shall monitor and record the annual VOC emissions from the Topcoat that could
result in a significant VOC emissions increase as a result of the project described in SECTION D.7, permitted in SSM003-34856-00036.

(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.4.13 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.4.1 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).
SECTION D.5  EMISSION UNIT OPERATION CONDITIONS

Emission Unit Description:

Insignificant Activities:

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

(b) One (1) Body Shop - Grinding and Machining, associated with the T1 Full Size Truck Project, approved in 2015 for construction.

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

(l) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.

(u)(3) Grinding Operations (Light Duty Truck Body Shop).

(u)(21) Mig Welding.

(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.5.1 Particulate Matter Limitations for Process Operations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2(e)(2) (Process Operations), the allowable PM emission rate from a manufacturing process shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e), the allowable PM emission rate from a manufacturing process shall not exceed \( E \), the pounds per hour allowable emission rate, when processing a process weight up to sixty thousand (60,000) pounds per hour as determined by the following equation:

\[ E = 4.10 \times P^{0.67} \]

where

\( E = \) rate of emission in pounds per hour and

\( P = \) process weight rate in tons per hour

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

A Preventive Maintenance Plan is required for for these facilities and its control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.
SECTION D.6  EMISSION UNIT OPERATION CONDITIONS

Emission Unit Description:

(j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

Under New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ), these four (4) generators are considered affected facilities.

Under National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ), these four (4) generators are considered affected facilities.

(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.6.1 Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) [326 IAC 2-2-3][326 IAC 8-1-6]

Pursuant to PSD/Significant Permit Modification No. 003-33317-00038, issued December 6, 2013, and 326 IAC 2-2-3 (Control Technology Review; Requirements), the Permittee shall comply with the following BACT limits for the four (4) landfill gas-fired generators, identified as Gen 1 through Gen 4:

(a) The VOC emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.56 g/bhp-hr VOC.

(b) The NOx emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.6 g/bhp-hr NOx.

(c) The CO emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 4.22 g/bhp-hr CO.

(d) The PM2.5 emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.13 g/bhp-hr PM2.5 (0.044 lb/MMBtu).

(e) The landfill gas-fired generators, Gen 1 through Gen 4, shall each be equipped with lean-burn control technology with air-to-fuel ratio adjustment control and ignition timing to ensure good combustion practices, and shall be maintained in accordance with manufacturer's recommendations.

Compliance with condition shall satisfy the requirements of 326 IAC 2-2, PSD rules and 326 IAC 8-1-6.

D.6.2 Opacity Limits [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity for generators Gen 1 through Gen 4 shall meet the following:

When operating alone, the opacity from any one generator shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period. 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) in a six (6) hour period. The opacity standards apply except during periods of startup, shutdown, or malfunction.
D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for each of the four (4) generators, identified as Gen 1 through Gen 4. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

D.6.4 Testing Requirements [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.6.1 (PSD BACT), within sixty (60) days of reaching maximum capacity but no later than one hundred eighty (180) days after initial startup, the Permittee shall conduct emissions testing utilizing methods as approved by the commissioner as follows:

(a) In order to demonstrate compliance with Condition D.6.1(a), the Permittee shall conduct emissions testing of VOC emissions from one of the Caterpillar G3520C generators, identified as Gen 1 though Gen 4. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be alternated between Gen 1, Gen 2, Gen 3, and Gen 4 on a rotating schedule such that no generator shall be tested again until each of the four (4) generators has been tested.

(b) In order to demonstrate compliance with Condition D.6.1(b), the Permittee shall conduct emissions testing of NOx emissions from one of the Caterpillar G3520C generators, identified as Gen 1 though Gen 4. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be alternated between Gen 1, Gen 2, Gen 3, and Gen 4 on a rotating schedule such that no generator shall be tested again until each of the four (4) generators has been tested.

(c) In order to demonstrate compliance with Condition D.6.1(c), the Permittee shall conduct emissions testing of CO emissions from one of the Caterpillar G3520C generators, identified as Gen 1 though Gen 4. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be alternated between Gen 1, Gen 2, Gen 3, and Gen 4 on a rotating schedule such that no generator shall be tested again until each of the four (4) generators has been tested.

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.6.5 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.6.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC BACT, NOx BACT, CO BACT, and PM2.5 BACT, established in Condition D.6.1.

(1) Records maintained shall include for each generator, Gen 1 through Gen 4, a complete list of maintenance specifications from the manufacturer, including specific parts and functions, maintenance items needed, specific intervals for maintenance of those parts, and the minimum specification required of those parts; and

(2) Records maintained shall include for each generator, Gen 1 through Gen 4, a complete list of actual maintenance performed, and shall include specific parts and functions, maintenance items performed, date and time of maintenance, and the specification achieved as the result of the maintenance activity.

(3) Section C - Record Keeping Requirements contains the Permittee's obligation with regard to the record keeping requirements required by this condition.
### SECTION D.7 FACILITY OPERATION CONDITIONS

#### Emission Unit Description:

(k) The following equipment approved in 2015 for construction to accommodate the T1 Full Size Truck Project:

1. One (1) Electrodeposition (ELPO Dipping) System, identified as 20, constructed in 2015 and approved in 2017 for modification, using one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 10 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.

2. Miscellaneous Sealers and Adhesives application, identified as 022, approved in 2015 for construction, using the Primer Surfacer, 010 RTO for VOC control, and exhausting to stacks 07 and 08.

3. Miscellaneous natural gas-fired equipment, identified as 021, with no controls.
   - Five (5) ASH Paint Heaters, each with a maximum heat input capacity of 12.5 MMBtu/hr, all venting inside the building.
   - Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr, all venting through stack D 21a.
   - One (1) Locker Room Heater, located at the paint area, with a maximum heat input capacity of 0.875 MMBtu/hr, venting inside the building.
   - One (1) Door Heaters, located at the paint area, each with a maximum heat input capacity of 0.058 MMBtu/hr, venting inside the building.
   - Eight (8) Unit Heaters, located at the paint area, each with a maximum heat input capacity of 0.058 MMBtu/hr, all venting inside the building.
   - Fourteen (14) ELPO Oven Convection Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.
   - Fourteen (14) ELPO Oven Radiant Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.
   - Forty-three (43) Dock Door Heaters, located at the Body Shop and Material Room, thirty-seven (37) with a maximum heat input capacity of 0.40 MMBtu/hr, each, and six (6) with a maximum heat input capacity of 0.60 MMBtu/hr, each, all venting inside the building.
   - Twenty-six (26) ASH Heaters, located at the Body Shop and Material Room, twenty (20) with a maximum heat input capacity of 1.805 MMBtu/hr, each, four (4) with a maximum heat input capacity of 1.9 MMBtu/hr, each, and two (2) with a maximum heat input capacity of 2.0 MMBtu/hr, each, all venting inside the building.

(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.7.1 PM2.5 PSD Credit Limitations [326 IAC 2-2]

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

(a) The combined natural gas usage at the one hundred fifty (150) combustion units associated with the T1 Full Size Truck Project permitted in SSM 003-34856-00036 shall be limited to 600 million cubic feet (MMCF) per twelve consecutive month period, with compliance determined at the end of each month.

(b) Boiler, identified as 003, shall be shut down permanently and removed from operation prior to the operation of any of the emission units associated with the T1 Full Size Truck Project permitted in SSM 003-34856-00036.

(c) PM2.5 emissions from overspray at the Primer Surfacer, identified as 010, shall not exceed 0.07 pound per hour.

Compliance with this condition shall render the requirements of 326 IAC 2-2, PSD, not applicable to this modification for PM2.5.

D.7.2 Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

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

(a) The VOC emissions from the Miscellaneous Sealers and Adhesives operation, identified as 022, controlled by the Primer Surfacer Coating System, identified as 010 RTO shall not exceed 28 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the ELPO, identified as 020, controlled by one RTO, exhausting to Stack 020, shall not exceed 10 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the above limits, combined with the potential to emit VOC from other emission units in the 2015 modification shall limit the VOC emissions to less than the significant emission rate (SER) of 40 tons per year and renders the requirements of 326 IAC 2-2, PSD, not applicable to this 2015 modification.

D.7.3 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2]

(a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the combined VOC delivered to the applicators from prime application, involving the Electrodeposition (ELPO Dipping) System, identified as 020, in this SECTION D.7 and the Primer Surfacer Coating System, identified as 010, in SECTION D.3, including the flash-off area, and drying oven shall not exceed 0.23 kilogram per liter of coating (1.9 pounds per gallon), excluding water.

(b) Pursuant to 326 IAC 8-1-2(b), VOC emissions from the Electrodeposition (ELPO Dipping) System, identified as 020, and the Primer Surfacer Coating System, identified as 010, shall be limited to no greater than the equivalent emissions of 2.6 pounds of VOC per gallon of coating solids, allowed in paragraph (a) of this condition.

D.7.4 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicators for the Miscellaneous Sealers and Adhesives, identified as 022.
D.7.5 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the three (3) Hot Water Generators, shall each not exceed 0.22 pound/MMBtu.

D.7.6 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the ELPO Dipping System, identified as 20 and its control devices and the Miscellaneous Sealers and Adhesives application, identified as 022 in this Section D.7. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.7.7 Volatile Organic Compounds (VOC) Compliance Equation

(a) Compliance with the VOC content and usage limitations contained in Conditions D.7.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8.

(b) Pursuant to 326 IAC 8-1-2(a), the combined VOC emission limitations under 326 IAC 8-2-2 in Condition D.7.3, for the Electrodeposition (ELPO Dipping) System, identified as 020, and the Primer Surfacer Coating System, identified as 010, shall be achieved through one (1) or any combination of the following: thermal incineration, use of higher solids (low solvent) coatings, and/or waterborne coatings.

When daily averaging is used to comply with the emission limitations in Condition D.7.3, one of the following equations shall be used to determine the volume weighted average of coatings on a daily basis:

(1) When a thermal oxidizer is used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:

\[
A = \frac{\sum_{i=1}^{n} C_i U_i (1 - (CE \cdot DRE))}{\sum_{i=1}^{n} U_i (1 - D_i)}
\]

Where:

\(A\) = daily volume weighted average, lb VOC/gal, less water

\(C\) = VOC content of coating \(i\), lb VOC/gal, less water

\(U\) = actual coating \(i\) usage, gal/day

\(D\) = coating \(i\) volume % water

\(n\) = no. of coatings used during the day

\(CE\) = capture efficiency of the emission system vented to the thermal oxidizer

\(DRE\) = destruction/removal efficiency of thermal oxidizer

(2) When a thermal oxidizer is not used to demonstrate compliance with the emission
limitation in Condition D.7.3, the daily volume weighted average shall be determined as follows:

\[
A = \frac{\sum_{i=1}^{n} C_i U_i}{\sum_{i=1}^{n} U_i}
\]

Where:

- \( A \) = daily volume weighted average, lb VOC/gal, less water
- \( C_i \) = VOC content of coating \( i \), lb VOC/gal, less water
- \( U_i \) = actual coating \( i \) usage, gal/day
- \( n \) = no. of coatings used during the day

(3) Using VOC Control:

The source may comply using VOC control equipment. In this case, the source must comply with the equivalent VOC emission limit expressed in terms of pound of VOC per gallon of coating solids. Equivalent emission limit is calculated using the following equation:

\[
E = \frac{L}{1 - \frac{(L/D)}}
\]

\[
= 1.9 \cdot \frac{1 - 1.9}{7.36}
\]

\[
= 2.6 \text{ lbs/gallon of coating solids}
\]

Where

- \( L \) = Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating (1.9 lb/gal);
- \( D \) = Density of VOC in coating in pounds per gallon of VOC (7.36 lb/gal);
- \( E \) = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of 7.36 pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit contained in this article.

(4) To meet the equivalent emission limit in pounds per gallon of applied coating solids (lb/gacs) of the pound per gallon less water VOC limit in Condition D.7.3(a), the overall control efficiency shall not be less than the equivalent overall efficiency calculated as follows:

\[
O = \left( V - E \right) \times 100
\]

Where:

- \( V \) = The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-
average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;

\[
E = \text{Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied; and}
\]

\[
O = \text{Equivalent overall efficiency of the capture system and control device as a percentage.}
\]

(5) Compliance with the VOC emission limits in D.7.2 shall be determined by using the following equation, which calculates tons of VOC emissions per month, and adding the result to the calculated VOC emissions from the previous eleven months.

\[
V_b = \sum_{i=1}^{n} (U_i \times C_i) \times (1 - CE) \times 1 \text{ ton/2000 lbs}
\]

Where:

- \( V_b \) = VOC emissions from the ELPO or Miscellaneous Sealers and Adhesive booth, ton/month
- \( U_i \) = usage of coating/sealer \( i \) in gallons per month;
- \( C_i \) = VOC content of coating/sealer \( i \) in pounds of VOC/gallon;
- \( CE \) = overall VOC control efficiency for the booth as determined from most recent test, when applicable.

(c) Compliance with the equivalent emission limitation in Condition D.7.3(b) shall be determined according to the following equation:

\[
E = \frac{L}{[1 - (L / D)]}
\]

Where:

- \( L \) = Applicable emission limit in pounds of VOC per gallon of coating.
- \( D \) = Density of VOC in coating in pounds per gallon of VOC.
- \( E \) = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance of surface coating operations using the compliance methods contained in 326 IAC 8-1-2(a).

D.7.8 Operation of Particulate and VOC Controls

(a) In order to ensure compliance with Condition D.7.1(c), the water wash associated with the Primer Surfacer, identified as 010, in SECTION D.3, shall be in operation at all times the Primer Surfacer, identified as 010, is in operation. The Permittee shall continue monitoring the water wash operation as required in Condition D.3.11.
In order to ensure compliance with Conditions D.7.2(b) and D.7.3(a), the Permittee shall operate the one (1) RTO at all times the ELPO, identified as 020, is in operation whenever noncompliant coatings are utilized at the ELPO Dipping System, identified as 020.

In order to ensure compliance with Conditions D.7.2(a), the Permittee shall operate the Primer Surfacer, 010 RTO at all times the Miscellaneous Sealers and Adhesives, is in operation if the abatement credit is used to demonstrate compliance with Condition D.7.2(a).

D.7.9 Testing Requirements [326 IAC 2-1.1-11]

(a) Within sixty (60) days after achieving maximum capacity but no later than one hundred eighty (180) days after initial startup of the ELPO, identified as 020, the Permittee shall conduct initial performance tests to determine the overall control efficiency (capture and destruction) of the one (1) RTO during operation of the ELPO and shall determine compliance with the VOC limit in Condition D.7.2(b), utilizing methods as approved by the Commissioner. This testing shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures) for control efficiency testing. Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

(b) The Permittee shall determine the capture efficiency for the Miscellaneous Sealers and Adhesives, identified as 022 within 60 days after using new sealers that will require the use of the Primer Surfacer, 010 RTO as an abatement credit to demonstrate the compliance status with VOC limit in Condition D.7.2(a), utilizing methods as approved by the Commissioner. The overall control efficiency (capture efficiency and destruction/removal (DRE)) of the Primer Surfacer, 010 RTO shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Performance testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures) for destruction efficiency testing. Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.7.10 Thermal Oxidizer Temperature [40 CFR 64]

(a) A continuous monitoring system shall be calibrated and maintained on the RTO controlling the ELPO Dipping System, identified as 20 and Primer Surfacer, 010 RTO controlling the Miscellaneous Sealers and Adhesives, identified as 022, for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the VOC limit in Condition D.7.2.

(c) The Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent valid compliant 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 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instruments used for determining the temperature shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.
D.7.11 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall determine the range for appropriate duct pressure or fan amperage for the RTO associated with the ELPO, identified as 020, and Primer Surfacer, 010 RTO controlling the Miscellaneous Sealers and Adhesives, identified as 022 from the most recent valid stack test that demonstrates compliance with the permit limits on VOC destruction efficiency and control efficiency as approved by IDEM.

(b) The duct pressure or fan amperage, whichever is monitored by the Permittee under this condition, shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test. If the duct pressure or fan amperage reading is outside the normal range, 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 duct pressure or fan amperage reading that is outside the normal range observed during the most recent valid compliant stack test is not a deviation from this permit. 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.7.12 Record Keeping Requirements

(a) To document the compliance status with Condition D.7.1(a), the Permittee shall maintain records of the natural gas usage from the one hundred fifty (150) combustion units associated with the T1 Full Size Truck Project, including the RTO control in this SECTION D.7.

(b) To document the compliance status with Conditions D.7.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit in D.7.2:

(1) The VOC content of each coating material and solvent used, less water at the ELPO System, identified as 20 and VOC content of Miscellaneous Sealers and Adhesives, identified as 022.

(2) A log of when the RTOs are used to demonstrate compliance with the emission limits.

(3) Monthly VOC usage for each coatings at the ELPO, ID 20

(4) Monthly VOC usage for each coatings/sealers/adhesives at the Miscellaneous Sealers and Adhesives, ID 022.

(5) Calculated monthly VOC emissions at the ELPO, ID 20 and Miscellaneous Sealers and Adhesives, identified as 022 in tons/month.

(6) During periods when the regenerative thermal oxidizers (RTOs) are used to demonstrate compliance with the ELPO and Miscellaneous Sealers and Adhesives emission limitations in D.7.2 and Condition D.7.11:

(A) The continuous temperature records (on a 3-hour average basis) for the RTO and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(B) The Permittee shall maintain records of RTO shutdowns due to duct pressure or fan amperage deviations.

(C) Daily records of the duct pressure or fan amperage
(D) Records of the dates of the RTO system alarms and corrective actions taken.

(c) To document the compliance status with Condition D.7.3(a), the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission limit in Condition D.7.3(a):

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 documents 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. A log of the dates of use of each coating.
4. A log of when the regenerative thermal oxidizers are used to demonstrate compliance with an emission limitation.
5. The monthly cleanup solvent usage.
6. The total VOC usage for each month.

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

D.7.13 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.7.1(a) and Condition D.7.2 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).
## SECTION D.8  EMISSION UNIT OPERATION CONDITIONS

**Emission Unit Description:**

1. **Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.40 MMBtu/hr, and exhausting indoors.**

2. **Fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, approved in 2016 for construction, each with a maximum heat input capacity of 0.40 MMBtu/hr, and exhausting indoors.**

3. **One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.645 MMBtu/hr, and exhausting indoors.**
   
   [Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

4. **Forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, exhausting indoors. The following units utilize steam from boilers ID 004 and 005 and are currently not listed in the permit since they do not emit any air pollutant:**

   1. **Paint Bld ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**

   2. **Paint Bld ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**

   3. **Paint Bld ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.**

   4. **Paint Bld ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.**

   5. **Paint Bld ASH #16, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.**

   6. **Paint Bld ASH #17, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.**

   7. **Paint Bld ASH #18, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.**

   8. **Paint Bld ASH #19, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.**

   9. **Paint Bld ASH #20, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.**
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Paint Bld ASH #21, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.</td>
</tr>
<tr>
<td>11</td>
<td>Paint Bld ASH #33, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.</td>
</tr>
<tr>
<td>12</td>
<td>Paint Bld ASH #34, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.</td>
</tr>
<tr>
<td>13</td>
<td>Paint Bld ASH #35, approved for construction in 2016, with a maximum heat input capacity of 4.219 MMBtu/hr.</td>
</tr>
<tr>
<td>14</td>
<td>Paint Bld ASH #36, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.</td>
</tr>
<tr>
<td>15</td>
<td>Paint Bld ASH #37, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.447 MMBtu/hr.</td>
</tr>
<tr>
<td>16</td>
<td>Bodyshop ACU #1, approved in 2016 for construction, with a maximum heat input capacity of 0.75 MMBtu/hr.</td>
</tr>
<tr>
<td>17</td>
<td>Bodyshop ACU #2, approved in 2016 for construction, with a maximum heat input capacity of 0.35 MMBtu/hr.</td>
</tr>
<tr>
<td>18</td>
<td>Bodyshop ACU #3, approved in 2016 for construction, with a maximum heat input capacity of 0.35 MMBtu/hr.</td>
</tr>
<tr>
<td>19</td>
<td>Mod Obs ASH #1, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.</td>
</tr>
<tr>
<td>20</td>
<td>Mod Obs ASH #2, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas with a maximum heat input capacity of 4.0 MMBtu/hr.</td>
</tr>
<tr>
<td>21</td>
<td>Mod Obs ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.</td>
</tr>
<tr>
<td>22</td>
<td>Mod Obs ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.</td>
</tr>
<tr>
<td>23</td>
<td>Mod Obs ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.</td>
</tr>
<tr>
<td>24</td>
<td>Mod Obs ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.</td>
</tr>
<tr>
<td>Number</td>
<td>Description</td>
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<tr>
<td>(25)</td>
<td>Mod Obs ASH #7</td>
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<td>(26)</td>
<td>Mod Obs ASH #8</td>
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<td>Mod Obs ASH #9</td>
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<td>(28)</td>
<td>Mod Obs ASH #10</td>
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<td>(29)</td>
<td>206 ASH</td>
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<td>(30)</td>
<td>Prime Cleanroom ASH</td>
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<tr>
<td>(31)</td>
<td>216 ASH #1 (SE)</td>
</tr>
<tr>
<td>(32)</td>
<td>216 ASH #2 (SW)</td>
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<tr>
<td>(33)</td>
<td>216 ASH #3 (NE)</td>
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<tr>
<td>(34)</td>
<td>216 ASH #4 (NW)</td>
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<tr>
<td>(35)</td>
<td>217 ASH #1 (SE)</td>
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<tr>
<td>(36)</td>
<td>217 ASH #2 (SW)</td>
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<tr>
<td>(37)</td>
<td>217 ASH #3 (NW)</td>
</tr>
<tr>
<td>(38)</td>
<td>217 ASH #4 (NE)</td>
</tr>
</tbody>
</table>
(39)  241 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.0 MMBtu/hr.

(40)  241 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

(41)  243 ASH #1 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.0 MMBtu/hr.

(42)  243 ASH #2 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

(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.8.1  Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

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

(a)  The total natural gas fuel usage for the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, one (1) natural gas-fired boiler, identified as BU-2, and the forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units shall not exceed seven hundred ninety-five (795) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b)  The NOx emissions shall not exceed 100 pounds per million cubic feet of natural gas.

Compliance with this limit shall limit the NOx emissions from the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, one (1) natural gas-fired boiler, identified as BU-2, and the forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units to less than forty (40) tons per year and render 326 IAC 2-2 (PSD) not applicable to the 2016 modification permitted under SSM No. 003-37324-00036.

D.8.2  Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the one (1) boiler, identified as BU-2, shall not exceed 0.22 pounds per MMBtu heat input.

D.8.3  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.

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

D.8.4  Record Keeping Requirements

(a)  To document the compliance status with Condition D.8.1, the Permittee shall maintain records of the natural gas usage to the four (4) natural gas-fired dock door heaters, identified as DUH-
56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, one (1) natural gas-fired boiler, identified as BU-2, and the forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units monthly.

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

D.8.5 Reporting Requirements

A quarterly report of the information to document the compliance status with Condition D.8.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.
SECTION D.9  EMISSION UNIT OPERATION CONDITIONS

Emission Unit Description:

(i) One (1) Gasoline Fill Operation, identified as 014, constructed in 1985, including tanks 8 and 9, each with a capacity of 20,000 gallons. The vehicles being fueled is equipped with an Onboard Refueling Vapor Recovery (ORVR) System as VOC control;

Insignificant Activity:

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

(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.9.1 Gasoline Dispensing Facilities [326 IAC 8-4-6]
Pursuant to 326 IAC 8-4-6(b), the Permittee shall not allow the transfer of gasoline between any transport and any storage tank unless such tank is equipped with the following:

(1) A submerged fill pipe that extends to not more than twelve (12) inches from the bottom of the storage tank if the fill pipe was installed on or before November 9, 2006.

(2) Either a pressure relief valve set to release at no less than seven-tenths (0.7) pounds per square inch or an orifice of five-tenths (0.5) inch in diameter.

(3) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications.

D.9.2 Leaks from Transports and Vapor Collection Systems; Records [326 IAC 8-4-9]
Pursuant to 326 IAC 8-4-9, the owner or operator of a vapor balance system or vapor control system subject to this rule shall:

(1) design and operate the applicable system and the gasoline loading equipment in a manner that prevents:

(A) a reading equal to or greater than twenty-one thousand (21,000) parts per million as propane, from all points on the perimeter of a potential leak source when measured by the method referenced in 40 CFR 60, Appendix A, Method 21, or an equivalent procedure approved by the commissioner during loading or unloading operations at gasoline dispensing facilities, bulk plants, and bulk terminals; and

(B) avoidable visible liquid leaks during loading or unloading operations at gasoline dispensing facilities.

(2) within fifteen (15) days, repair and retest a vapor balance, collection, or control system that exceeds the limits in subdivision (1).

D.9.3 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.
Emission Unit Description:

(a) Facility-wide natural gas usage, including combustion units described as follows:

(1) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

(2) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

(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 [326 IAC 2-7-5(1)]


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

(b) Pursuant to 40 CFR 60.4, 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 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units NSPS [40 CFR Part 60, Subpart Db]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Db (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

(A) 40 CFR 60.40b(a),(f),(g),(j);
(B) 40 CFR 60.41b;
(C) 40 CFR 60.42b(k)(2);
(D) 40 CFR 60.44b(a)(1),(h), (i);
(E) 40 CFR 60.46b(a),(c), (e);
(F) 40 CFR 60.48b(b)(1) or (b)(2), (c), (d), (f);
(G) 40 CFR 60.49b(a),(b), (d), (g), (o), (v), (w).
SECTION E.2 NSPS

Emission Unit Description:

(b) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;

(d) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, approved in 2010 for modification, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above; and

(e) One (1) Topcoat System, identified as 008, constructed in August 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using water wash as PM control, and exhausting to stack 04.

(k) The following equipment approved in 2015 for construction to accommodate the T1 Full Size Truck Project:

(1) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, constructed in 2015 and approved in 2017 for modification, using one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 10 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.

(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 [326 IAC 2-7-5(1)]


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

(b) Pursuant to 40 CFR 60.4, 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 Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations [40 CFR Part 60, Subpart MM]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart MM (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:
(1) 40 CFR 60.390;
(2) 40 CFR 60.391;
(3) 40 CFR 60.392(a)(1), (b), (c);
(4) 40 CFR 60.393;
(5) 40 CFR 60.394;
(6) 40 CFR 60.395;
(7) 40 CFR 60.396;
(8) 40 CFR 60.397.
SECTION E.3  NSPS

Emission Unit Description:

Insignificant Activities:

General Motors LLC – Lafayette Center Road

(t) Other emergency equipment as follows: Stationary fire pumps.

(2) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and exhausting through Stack FP2.

Under 40 CFR 60, Subpart III, Fire Pump 2 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Fire Pump 2 is considered an affected facility.

(y) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.

Under 40 CFR 60, Subpart III, Emergency Generator 9 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 9 is considered an affected facility.

General Motors LLC - Stonebridge Road

(a) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting outdoors.

Under 40 CFR 60, Subpart III, this generator is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, this generator is considered an affected facility.

(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 [326 IAC 2-7-5(1)]

E.3.1 General Provisions Relating to New Source Performance Standards [40 CFR 60, Subpart A][326 IAC 12-1]

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

(b) Pursuant to 40 CFR 60.4, 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 New Standards of Performance for Compression Ignition Internal Combustion Engines NSPS [40 CFR 60, Subpart IIII]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units as specified below:

**General Motors LLC – Lafayette Center Road**

(a) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.

(1) 40 CFR 60.4200(a)(2)(i)
(2) 40 CFR 60.4205(b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4209(a)
(6) 40 CFR 60.4211(a), (c), (f)
(7) 40 CFR 60.4214
(8) 40 CFR 60.4219
(9) Table 5 (applicable portions) to 40 CFR 60, Subpart IIII
(10) Table 8 (applicable portions) to 40 CFR 60, Subpart IIII

(b) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and exhausting through Stack FP2.

(1) 40 CFR 60.4200(a)(2)(ii), (a)(4)
(2) 40 CFR 60.4205(c)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4209(a)
(6) 40 CFR 60.4211(a), (c), (f)
(7) 40 CFR 60.4214(b)
(8) 40 CFR 60.4219
(9) Table 4 (applicable portions) to 40 CFR 60, Subpart IIII
(10) Table 5 (applicable portions) to 40 CFR 60, Subpart IIII
(11) Table 8 (applicable portions) to 40 CFR 60, Subpart IIII

**General Motors LLC - Stonebridge Road**

(a) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting indoors.

(1) 40 CFR 60.4200(a)(2), (a)(4)
(2) 40 CFR 60.4205(b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4209(a)
(6) 40 CFR 60.4211(a), (c), (f)
(7) 40 CFR 60.4214(b)
(8) 40 CFR 60.4218
(9) 40 CFR 60.4219
(10) Table 5 (applicable portions) to 40 CFR 60, Subpart IIII
(11) Table 8 (applicable portions) to 40 CFR 60, Subpart IIII
SECTION E.4 NSPS

Emission Unit Description:

General Motors LLC – Lafayette Center Road

<table>
<thead>
<tr>
<th>Description</th>
<th>Output Rating</th>
<th>Controls</th>
<th>Exhaust Stack</th>
</tr>
</thead>
<tbody>
<tr>
<td>(j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.</td>
<td>2,242 hp</td>
<td>No</td>
<td>S01</td>
</tr>
<tr>
<td>Under 40 CFR 60, Subpart JJJJ, Gen 1 through Gen 4 are considered affected facilities.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 40 CFR 63, Subpart ZZZZ, Gen 1 through Gen 4 are considered affected facilities.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Insignificant Activities:

(z) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

Under 40 CFR 60, Subpart JJJJ, Emergency Generator 6 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 6 is considered an affected facility.

(aa) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

Under 40 CFR 60, Subpart JJJJ, Emergency Generator 7 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 7 is considered an affected facility.

(bb) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.

Under 40 CFR 60, Subpart JJJJ, Emergency Generator 8 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 8 is considered an affected facility.

(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 [326 IAC 2-7-5(1)]

E.4.1 General Provisions Relating to New Source Performance Standards [40 CFR 60, Subpart A][326 IAC 12-1]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart JJJJJ.
(b) Pursuant to 40 CFR 60.4, 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 New Standards of Performance for Spark Ignition Internal Combustion Engines NSPS [40 CFR 60, Subpart JJJJ]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart JJJJ (included as Attachment D to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units as specified below:

(a) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

   (1) 40 CFR 60.4230(a)(4)(i), (6)
   (2) 40 CFR 60.4233(e)
   (3) 40 CFR 60.4234
   (4) 40 CFR 60.4243(b)(2)(ii), (g),
   (5) 40 CFR 60.4244
   (6) 40 CFR 60.4245(a), (c), (d)
   (7) 40 CFR 60.4246
   (8) 40 CFR 60.4248
   (9) Tables 1 - 3 (applicable portions) to 40 CFR Part 60, Subpart JJJJ

(b) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

   (1) 40 CFR 60.4230(a)(4)(iv)
   (2) 40 CFR 60.4233(e)
   (3) 40 CFR 60.4234
   (4) 40 CFR 60.4237
   (5) 40 CFR 60.4243(d)
   (6) Tables 1 (applicable portions) to 40 CFR Part 60, Subpart JJJJ
   (7) Tables 4 (applicable portions) to 40 CFR Part 60, Subpart JJJJ

(c) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

   (1) 40 CFR 60.4230(a)(4)(iv)
   (2) 40 CFR 60.4233(e)
   (3) 40 CFR 60.4234
   (4) 40 CFR 60.4237
   (5) 40 CFR 60.4243(d)
   (6) Tables 1 (applicable portions) to 40 CFR Part 60, Subpart JJJJ
   (7) Tables 4 (applicable portions) to 40 CFR Part 60, Subpart JJJJ

(d) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8,
constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.

(1) 40 CFR 60.4230(a)(4)(iv)
(2) 40 CFR 60.4233(e)
(3) 40 CFR 60.4234
(3) 40 CFR 60.4237
(4) 40 CFR 60.4243(d)
(5) 40 CFR 60.4248
(6) Tables 1 (applicable portions) to 40 CFR Part 60, Subpart JJJJ
(7) Tables 4 (applicable portions) to 40 CFR Part 60, Subpart JJJJ
### Emission Unit Description:

(g) 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.

(dd) Methanol windshield washer fluid storage tank, with a capacity of 10,000 gallons.

(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 [326 IAC 2-7-5(1)]


(a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions which are incorporated by reference as 326 IAC 20-1-1, for the emission units listed above, except as otherwise specified in 40 CFR 63, Subpart EEEE.

(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.5.2 National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) [40 CFR Part 63, Subpart EEEE] [326 IAC 20-83-1]**

The Permittee shall comply with the following provisions of this 40 CFR 63, Subpart EEEE (included as Attachment E of the operating permit), which are incorporated by reference as 326 IAC 20-83, for the units listed above, upon startup:

1. 40 CFR 63.2330
2. 40 CFR 63.2334(a)
3. 40 CFR 63.2338(a)(1), (a)(3)(i), (d)
4. 40 CFR 63.2342(a)(1)(i)
5. 40 CFR 63.2343(b)(3)
6. 40 CFR 63.2402
7. 40 CFR 63.2406
8. Table 2 to Subpart EEEE of Part 63
SECTION E.6 NESHAP

Emission Unit Description:

(b) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;

(c) One (1) Underbody Robotic Sealer Operation, identified as Stone Guard Sealer, approved in 2012 for operation, using no controls, and exhausting indoors;

(d) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, approved in 2010 for modification, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;

(e) One (1) Topcoat System, identified as 008, constructed in August 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using water wash as PM control, and exhausting to stack 04;

(f) Miscellaneous sealers/adhesives/additives/solvents, identified as part of 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;

(g) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;

(h) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10;

(k) The following equipment approved in 2015 for construction to accommodate the T1 Full Size Truck Project:

   (1) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, constructed in 2015 and approved in 2017 for modification, using one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 10 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.

   Under 40 CFR 60, Subpart MM, this is considered an affected facility.

Insignificant Activities:

(b) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984.

(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

[326 IAC 2-7-5(1)]


(a) Pursuant to 40 CFR 63.1 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, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart III.

(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.6.2 Surface Coating of Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart III]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart III (included as Attachment F to the operating permit), for the emission units listed above:

1. 40 CFR 63.3080;
2. 40 CFR 63.3081;
3. 40 CFR 63.3082(a)-(d), (g);
4. 40 CFR 63.3083(b), (d);
5. 40 CFR 63.3091(a)-(f);
6. 40 CFR 63.3092;
7. 40 CFR 63.3093;
8. 40 CFR 63.3094;
9. 40 CFR 63.3100;
10. 40 CFR 63.3101;
11. 40 CFR 63.3110;
12. 40 CFR 63.3120;
13. 40 CFR 63.3130;
14. 40 CFR 63.3131;
15. 40 CFR 63.3150;
16. 40 CFR 63.3151;
17. 40 CFR 63.3152;
18. 40 CFR 63.3160(b), (c);
19. 40 CFR 63.3161;
20. 40 CFR 63.3163;
21. 40 CFR 63.3164;
22. 40 CFR 63.3165;
23. 40 CFR 63.3166;
24. 40 CFR 63.3167(a), (b), (f);
25. 40 CFR 63.3168(a), (b), (c), (g);
26. 40 CFR 63.3169;
27. 40 CFR 63.3170(b);
28. 40 CFR 63.3171;
29. 40 CFR 63.3173;
30. 40 CFR 63.3174;
31. 40 CFR 63.3175;
32. 40 CFR 63.3176;
33. Table 1 to 40 CFR 63, Subpart III;
34. Table 2 to 40 CFR 63, Subpart III;
35. Table 3 to 40 CFR 63, Subpart III;
36. Appendix A to Subpart III of Part 63.
E.6.3 Surface Coating of Miscellaneous Metal Parts and Products NESHAP [40 CFR 63, Subpart MMMM]

Pursuant to 40 CFR 63.3881(d), the Permittee which engages in the surface coating of miscellaneous metal parts and products that meets the applicability criteria in 40 CFR 63.3081(b) for the surface coating of automobiles and light-duty trucks, shall comply with the provisions of 40 CFR 63, Subpart IIII, in order to demonstrate compliance with 40 CFR 63, Subpart MMMM.
SECTION E.7 NESHAP

Emission Unit Description:

General Motors LLC – Lafayette Center Road

(j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

Under 40 CFR 60, Subpart JJJJ, Gen 1 through Gen 4 are considered affected facilities.

Under 40 CFR 63, Subpart ZZZZ, Gen 1 through Gen 4 are considered affected facilities.

Insignificant Activities:

(s) Diesel generators not exceeding 1600 horsepower.

(1) One (1) diesel-fired emergency generator, identified as Emergency Generator 2, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG2.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 2 is considered an affected facility.

(2) One (1) diesel-fired emergency generator, identified as Emergency Generator 3, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG3.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 3 is considered an affected facility.

(3) One (1) diesel-fired emergency generator, identified as Emergency Generator 5, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG5.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 5 is considered an affected facility.

(4) One (1) diesel-fired emergency generator, identified as Emergency Generator PHDZL, constructed in 1985, with a maximum output rating of 1515 horsepower, using no controls, and exhausting through Stack EGPHDZL.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator PHDZL is considered an affected facility.

(t) Other emergency equipment as follows: Stationary fire pumps.

(1) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 1, constructed in 1985, with a maximum output rating of 302 horsepower, using no controls, and each exhausting through Stack FP1.

Under 40 CFR 63, Subpart ZZZZ, Fire Pump 1 is considered an affected facility.

(2) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and each exhausting through Stack FP2.

Under 40 CFR 63, Subpart ZZZZ, Fire Pump 2 is considered an affected facility.
exhausting through Stack FP2.
Under 40 CFR 60, Subpart III, Fire Pump 2 is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, Fire Pump 2 is considered an affected facility.

(y) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.
Under 40 CFR 60, Subpart III, Emergency Generator 9 is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 9 is considered an affected facility.

(z) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.
Under 40 CFR 60, Subpart JJJJ, Emergency Generator 6 is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 6 is considered an affected facility.

(aa) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.
Under 40 CFR 60, Subpart JJJJ, Emergency Generator 7 is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 7 is considered an affected facility.

(bb) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.
Under 40 CFR 60, Subpart JJJJ, Emergency Generator 8 is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 8 is considered an affected facility.

General Motors LLC - Stonebridge Road

(a) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting outdoors.
Under 40 CFR 60, Subpart III, this generator is considered an affected facility.
Under 40 CFR 63, Subpart ZZZZ, this generator is considered an affected facility.

(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
[326 IAC 2-7-5(1)]


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

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

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

E.7.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment G to the operating permit), for the emission units as specified below:

General Motors LLC – Lafayette Center Road

(a) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

1. 40 CFR 63.6580
2. 40 CFR 63.6585 (a), (b)
3. 40 CFR 63.6590 (a)(2)(i), (b)(2)
4. 40 CFR 63.6595 (a)(3)
5. 40 CFR 63.6600 (c)
6. 40 CFR 63.6605
7. 40 CFR 63.6625 (c)
8. 40 CFR 63.6640 (e)
9. 40 CFR 63.6645 (c)
10. 40 CFR 63.6650 (g)
11. 40 CFR 63.6655 (c)
12. 40 CFR 63.6660
13. 40 CFR 63.6665
14. 40 CFR 63.6670
15. 40 CFR 63.6675
16. Table 7 (item 2) to 40 CFR 63, Subpart ZZZZ
17. Table 8 to 40 CFR 63, Subpart ZZZZ

(b) Three (3) diesel-fired emergency generators, identified as Emergency Generator 2, Emergency Generator 3, and Emergency Generator 5, each constructed in 1985, each with a maximum output rating of 415 horsepower, using no controls, and each exhausting through Stacks EG2, EG3, and EG5, respectively.

One (1) diesel-fired emergency generator, identified as Emergency Generator PHDZL, constructed in 1985, with a maximum output rating of 1515 horsepower, using no controls, and exhausting through Stack EGPHDZL.

One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 1, constructed in 1985, with a maximum output rating of 302 horsepower, using no controls, and exhausting through
Stack FP1.

(c) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.

(d) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and exhausting through Stack FP2.

(e) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

(f) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

(g) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.
(1) 40 CFR 63.6580
(2) 40 CFR 63.6585(a), (b)
(3) 40 CFR 63.6590(c)(6)

General Motors LLC - Stonebridge Road

(a) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting outdoors.

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585(a), (b)
(3) 40 CFR 63.6590(a)(2)(i), (b)(1)
(4) 40 CFR 63.6645(f)
SECTION E.8 NESHAP

Emission Unit Description:

(a) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

[Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.]

[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

(b) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

[Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.]

[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

(k)(4)(iii)Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr.

(n) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.

[Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]

(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
[326 IAC 2-7-5(1)]


(a) Pursuant to 40 CFR 63.1 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, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart DDDDD

(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.8.2 National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers NESHAP [40 CFR 63, Subpart DDDDD][326 IAC 20-95]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD (included as Attachment H to the operating permit), which are incorporated by reference as 326 IAC 20-95, for the emission units listed above:

(a) 40 CFR 63.7480;

(b) 40 CFR 63.7485;
(c) 40 CFR 63.7490;
(d) 40 CFR 63.7495;
(e) 40 CFR 63.7500;
(f) 40 CFR 63.7505;
(g) 40 CFR 63.7510;
(h) 40 CFR 63.7515;
(i) 40 CFR 63.7520;
(j) 40 CFR 63.7525;
(k) 40 CFR 63.7530;
(l) 40 CFR 63.7535;
(m) 40 CFR 63.7540;
(n) 40 CFR 63.7541;
(o) 40 CFR 63.7545;
(p) 40 CFR 63.7550;
(q) 40 CFR 63.7555;
(r) 40 CFR 63.7560;
(s) 40 CFR 63.7565;
(t) 40 CFR 63.7570;
(u) 40 CFR 63 Table 2 to NESHAP Subpart DDDDD;
(v) 40 CFR 63 Table 3 to NESHAP Subpart DDDDD;
(w) 40 CFR 63 Table 4 to NESHAP Subpart DDDDD;
(x) 40 CFR 63 Table 5 to NESHAP Subpart DDDDD;
(y) 40 CFR 63 Table 6 to NESHAP Subpart DDDDD;
(z) 40 CFR 63 Table 8 to NESHAP Subpart DDDDD;
(aa) 40 CFR 63 Table 9 to NESHAP Subpart DDDDD;
(bb) 40 CFR 63 Table 10 to NESHAP Subpart DDDDD; and
(cc) 40 CFR 63 Table 11 to NESHAP Subpart DDDDD.
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:
This is an emergency as defined in 326 IAC 2-7-1(12)

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

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

<table>
<thead>
<tr>
<th><strong>Date/Time Emergency started:</strong></th>
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</thead>
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</table>

<table>
<thead>
<tr>
<th><strong>Date/Time Emergency was corrected:</strong></th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Was the facility being properly operated at the time of the emergency?</strong></th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Type of Pollutants Emitted:</strong> TSP, PM-10, SO₂, VOC, NOₓ, CO, Pb, other:</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th><strong>Estimated amount of pollutant(s) emitted during emergency:</strong></th>
</tr>
</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th><strong>Describe the steps taken to mitigate the problem:</strong></th>
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<td></td>
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<thead>
<tr>
<th><strong>Describe the corrective actions/response steps taken:</strong></th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th><strong>Describe the measures taken to minimize emissions:</strong></th>
</tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>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:</strong></th>
</tr>
</thead>
<tbody>
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<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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</tbody>
</table>

Form Completed by: _______________________________

Title / Position: _______________________________

Date: _______________________________

Phone: _______________________________
### Part 70 Quarterly Report

**Source Name:** General Motors LLC Fort Wayne Assembly  
**Source Address:** 12200 Lafayette Center Road, Roanoke, Indiana 46783  
**Part 70 Permit No.:** T 003-41020-00036  
**Facility:** Boiler 005  
**Parameter:** Natural gas usage  
**Limit:** Shall not exceed 1,902.2 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

<table>
<thead>
<tr>
<th>QUARTER :</th>
<th>YEAR:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Month</strong></td>
<td>Natural Gas Usage (MMCF)</td>
</tr>
<tr>
<td></td>
<td>This Month</td>
</tr>
</tbody>
</table>

- [ ] No deviation occurred in this quarter.
- [ ] Deviation/s occurred in this quarter.  
  Deviation has been reported on: ________________

Submitted by: ____________________________  
Title / Position: ____________________________  
Signature: ____________________________  
Date: ____________________________  
Phone: ____________________________
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
Part 70 Quarterly Report

Source Name: General Motors LLC Fort Wayne Assembly
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783
Part 70 Permit No.: T 003-41020-00036
Facility: Surface Coating and Cleaning Operations, including ELPO Dipping System (006), Primer Surfacer System (010), Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013)
Parameter: VOC emissions
Limit: Shall not exceed 3,204 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

<table>
<thead>
<tr>
<th>QUARTER</th>
<th>YEAR</th>
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</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>VOC Emissions (tons)</th>
<th>VOC Emissions (tons)</th>
<th>VOC Emissions (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>This Month</td>
<td>Previous 11 Months</td>
<td>12 Month Total</td>
<td></td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.

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

Submitted by: ____________________________
Title / Position: ____________________________
Signature: ____________________________
Date: ____________________________
Phone: ____________________________
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: General Motors LLC Fort Wayne Assembly
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783
Part 70 Permit No.: T 003-41020-00036
Facility: T1 Full Size Truck Project - ELPO, ID 020
Parameter: VOC emissions
Limit: Shall not exceed 10 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

<table>
<thead>
<tr>
<th>QUARTER:</th>
<th>YEAR:</th>
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</thead>
<tbody>
<tr>
<td>Month</td>
<td>VOC Emissions (tons)</td>
</tr>
<tr>
<td></td>
<td>This Month</td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.

Deviation has been reported on: _______________________

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

VOC emissions summary table for General Motors LLC Fort Wayne Assembly, including sources of emissions, permit numbers, and compliance details. The report details the VOC emissions limit and the verification of compliance for the specified facility and parameter.
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  

Part 70 Quarterly Report

Source Name: General Motors LLC Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-41020-00036  
Facility: Twenty (20) natural gas-fired burners, known as MOD 1 through MOD 10 (each 
mod contains two burners)  
Parameter: Natural gas usage  
Limit: Shall not exceed six hundred ten (610) million cubic feet per twelve (12) consecutive 
month period, with compliance determined at the end of each month.  

<table>
<thead>
<tr>
<th>QUARTER :</th>
<th>YEAR:</th>
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<table>
<thead>
<tr>
<th>Month</th>
<th>Natural Gas Usage (MMCF)</th>
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<tbody>
<tr>
<td></td>
<td>This Month</td>
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</tbody>
</table>

- □ No deviation occurred in this quarter.  
- □ Deviation/s occurred in this quarter.  
  Deviation has been reported on: ______________________

Submitted by: ______________________
Title / Position: ______________________
Signature: ______________________
Date: ______________________
Phone: ______________________
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: General Motors LLC Fort Wayne Assembly
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783
Part 70 Permit No.: T 003-41020-00036
Facility: T1 Full Size Truck Project - Miscellaneous Sealers and Adhesives, ID 022
Parameter: VOC emissions
Limit: Shall not exceed 28 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

<table>
<thead>
<tr>
<th>QUARTER :</th>
<th>YEAR:</th>
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<table>
<thead>
<tr>
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<td>This Month</td>
<td>Previous 11 Months</td>
<td>12 Month Total</td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.

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

Submitted by: ______________________
Title / Position: ______________________
Signature: ______________________
Date: ______________________
Phone: ______________________
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: General Motors LLC Fort Wayne Assembly
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783
Part 70 Permit No.: T 003-41020-00036
Facility: T1 Full Size Truck Project - One hundred fifty (150) natural gas-fired heaters, and RTOs
Parameter: Natural gas usage
Limit: Shall not exceed six hundred (600) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

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<tr>
<th>QUARTER</th>
<th>YEAR</th>
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<thead>
<tr>
<th>Month</th>
<th>Natural Gas Usage (MMCF)</th>
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<th>Natural Gas Usage (MMCF)</th>
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<tr>
<td></td>
<td>This Month</td>
<td>Previous 11 Months</td>
<td>12 Month Total</td>
</tr>
</tbody>
</table>

☐ No deviation occurred in this quarter.

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

Submitted by: ____________________________________________
Title / Position: _________________________________________
Signature: ______________________________________________
Date: _________________________________________________
Phone: _________________________________________________
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: General Motors LLC Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-41020-00036

Facility: Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, one (1) natural gas-fired boiler, identified as BU-2, and the forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units.

Parameter: Natural gas usage

Limit: Shall not exceed seven hundred ninety-five (795) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

<table>
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<th>QUARTER :</th>
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- □ 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: General Motors, LLC - Fort Wayne Assembly  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T003-41020-00036

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

<table>
<thead>
<tr>
<th>Permit Requirement (specify permit condition #)</th>
<th>Date of Deviation:</th>
<th>Duration of Deviation:</th>
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<tbody>
<tr>
<td>Number of Deviations:</td>
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<tr>
<td>Probable Cause of Deviation:</td>
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<tr>
<td>Response Steps Taken:</td>
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</tbody>
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<tr>
<th>Permit Requirement (specify permit condition #)</th>
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<tr>
<td>Probable Cause of Deviation:</td>
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<tr>
<td>Response Steps Taken:</td>
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</tbody>
</table>

Page 1 of 2
| 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: ______________________________
§60.40b  Applicability and delegation of authority.

(a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

(b) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986, is subject to the following standards:

(1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the particulate matter (PM) and nitrogen oxides (NO\textsubscript{X}) standards under this subpart.

(2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are subject to the PM and NO\textsubscript{X} standards under this subpart and to the sulfur dioxide (SO\textsubscript{2}) standards under subpart D (§60.43).

(3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the NO\textsubscript{X} standards under this subpart.

(4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are also subject to the NO\textsubscript{X} standards under this subpart and the PM and SO\textsubscript{2} standards under subpart D (§60.42 and §60.43).

(c) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO\textsubscript{X} standards under this subpart and the SO\textsubscript{2} standards under subpart J or subpart Ja of this part, as applicable.

(d) Affected facilities that also meet the applicability requirements under subpart E (Standards of performance for incinerators; §60.50) are subject to the NO\textsubscript{X} and PM standards under this subpart.

(e) Steam generating units meeting the applicability requirements under subpart Da (Standards of performance for electric utility steam generating units; §60.40Da) are not subject to this subpart.

(f) Any change to an existing steam generating unit for the sole purpose of combusting gases containing total reduced sulfur (TRS) as defined under §60.281 is not considered a modification under §60.14 and the steam generating unit is not subject to this subpart.
(g) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, the following authorities shall be retained by the Administrator and not transferred to a State.

(1) Section 60.44b(f).

(2) Section 60.44b(g).

(3) Section 60.49b(a)(4).

(h) Any affected facility that meets the applicability requirements and is subject to subpart Ea, subpart Eb, subpart AAAA, or subpart CCCC of this part is not subject to this subpart.

(i) Affected facilities (i.e., heat recovery steam generators) that are associated with stationary combustion turbines and that meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other affected facilities (i.e., heat recovery steam generators with duct burners) that are capable ofcombusting more than 29 MW (100 MMBtu/h) heat input offossil fuel. If the affected facility (i.e., heat recovery steam generator) is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).

(k) Any affected facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart Cb or subpart BBBB of this part is not covered by this subpart.

(l) Affected facilities that also meet the applicability requirements under subpart BB of this part (Standards of Performance for Kraft Pulp Mills) are subject to the SO2 and NOx standards under this subpart and the PM standards under subpart BB.

(m) Temporary boilers are not subject to this subpart.


§60.41b Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

Byproduct/waste means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum refineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide (CO2) levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purpose of this subpart.

Chemical manufacturing plants mean industrial plants that are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.
Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, coke oven gas, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any byproduct 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 kJ/kg (6,000 Btu/lb) on a dry basis.

Cogeneration, also known as combined heat and power, means a facility that simultaneously produces both electric (or mechanical) and useful thermal energy from the same primary energy source.

Coke oven gas means the volatile constituents generated in the gaseous exhaust during the carbonization of bituminous coal to form coke.

Combined cycle system means a system in which a separate source, such as a gas turbine, internal combustion engine, kiln, etc., provides exhaust gas to a steam generating unit.

Conventional technology means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

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 §60.17), diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see §60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see §60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO₂ control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO₂ control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Full capacity means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.
Gaseous fuel means any fuel that is a gas at ISO conditions. This includes, but is not limited to, natural gas and gasified coal (including coke oven gas).

Gross output means the gross useful work performed by the steam generated. For units generating only electricity, the gross useful work performed is the gross electrical output from the turbine/generator set. For cogeneration units, the gross useful work performed is the gross electrical or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (i.e., steam delivered to an industrial process).

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

Heat release rate means the steam generating unit design heat input capacity (in MW or Btu/hr) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

Heat transfer medium means any material that is used to transfer heat from one point to another point.

High heat release rate means a heat release rate greater than 730,000 J/sec-m³ (70,000 Btu/hr-ft³).

ISO Conditions means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

Lignite means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

Low heat release rate means a heat release rate of 730,000 J/sec-m³ (70,000 Btu/hr-ft³) or less.

Mass-feed stoker steam generating unit means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.

Maximum heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

Municipal-type solid waste means refuse, more than 50 percent of which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.

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 by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.
Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.

Petroleum refinery means industrial plants as classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.

Potential sulfur dioxide emission rate means the theoretical SO₂ emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems. For gasified coal or oil that is desulfurized prior to combustion, the Potential sulfur dioxide emission rate is the theoretical SO₂ emissions (ng/J or lb/MMBtu heat input) that would result from combusting fuel in a cleaned state without using any post combustion emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Pulp and paper mills means industrial plants that are classified by the Department of Commerce under North American Industry Classification System (NAICS) Code 322 or Standard Industrial Classification (SIC) Code 26.

Pulverized coal-fired steam generating unit means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units. Residual oil means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Spreader stoker steam generating unit means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

Steam generating unit means a device that combusts any fuel or byproduct/waste and produces steam or heats water or heats any heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Temporary boiler means any gaseous or liquid fuel-fired steam generating unit 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 steam generating unit is not a temporary boiler if any one of the following conditions exists:

1. The equipment is attached to a foundation.
2. The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.
3. The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.
4. The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.
Very low sulfur oil means for units constructed, reconstructed, or modified on or before February 28, 2005, oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO2 emission control, has a SO2 emission rate equal to or less than 215 ng/J (0.5 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005 and not located in a noncontinental area, very low sulfur oil means oil that contains no more than 0.30 weight percent sulfur or that, when combusted without SO2 emission control, has a SO2 emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005 and located in a noncontinental area, very low sulfur oil means oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO2 emission control, has a SO2 emission rate equal to or less than 215 ng/J (0.50 lb/MMBtu) heat input.

Wet flue gas desulfurization technology means a SO2 control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including, but not limited to, sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.


§60.42b Standard for sulfur dioxide (SO2).

(a) Except as provided in paragraphs (b), (c), (d), or (j) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain SO2 in excess of 87 ng/J (0.20 lb/MMBtu) or 10 percent (0.10) of the potential SO2 emission rate (90 percent reduction) and the emission limit determined according to the following formula:

$$E_s = \frac{K_s H_a + K_b H_b}{H_a + H_b}$$

Where:

- $E_s =$ SO2 emission limit, in ng/J or lb/MMBtu heat input;
- $K_s =$ 520 ng/J (or 1.2 lb/MMBtu);
- $K_b =$ 340 ng/J (or 0.80 lb/MMBtu);
- $H_a =$ Heat input from the combustion of coal, in J (MMBtu); and
- $H_b =$ Heat input from the combustion of oil, in J (MMBtu).

For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction,
or modification on or before February 28, 2005, that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain SO2 in excess of 87 ng/J (0.20 lb/MMBtu) or 20 percent (0.20) of the potential SO2 emission rate (80 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable. For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(c) On and after the date on which the performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of SO2 emissions, shall cause to be discharged into the atmosphere any gases that contain SO2 in excess of 50 percent of the potential SO2 emission rate (50 percent reduction) and that contain SO2 in excess of the emission limit determined according to the following formula:

\[
E_s = \frac{(K_c H_c + K_d H_d)}{(H_c + H_d)}
\]

Where:

- \(E_s\) = SO2 emission limit, in ng/J or lb/MM Btu heat input;
- \(K_c\) = 260 ng/J (or 0.60 lb/MMBtu);
- \(K_d\) = 170 ng/J (or 0.40 lb/MMBtu);
- \(H_c\) = Heat input from the combustion of coal, in J (MMBtu); and
- \(H_d\) = Heat input from the combustion of oil, in J (MMBtu).

For facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(d) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 and listed in paragraphs (d)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere any gases that contain SO2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/MMBtu) heat input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under paragraphs (d)(1), (2), (3) or (4) of this section. For facilities complying with paragraphs (d)(1), (2), or (3) of this section, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in this paragraph. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(1) Affected facilities that have an annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a federally enforceable permit limiting the operation of the affected facility to an annual capacity factor for coal and oil of 30 percent (0.30) or less;

(2) Affected facilities located in a noncontinental area; or

(3) Affected facilities combusting coal or oil, alone or in combination with any fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from
combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from the exhaust gases entering the duct burner; or

(4) The affected facility burns coke oven gas alone or in combination with natural gas or very low sulfur distillate oil.

(e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this section are determined on a 30-day rolling average basis.

(f) Except as provided in paragraph (j)(2) of this section, compliance with the emission limits or fuel oil sulfur limits under this section is determined on a 24-hour average basis for affected facilities that (1) have a federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, (2) combust only very low sulfur oil, and (3) do not combust any other fuel.

(g) Except as provided in paragraph (i) of this section and §60.45b(a), the SO₂ emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(h) Reductions in the potential SO₂ emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:

(1) Fuel pretreatment results in a 50 percent or greater reduction in potential SO₂ emissions and

(2) Emissions from the pretreated fuel (without combustion or post-combustion SO₂ control) are equal to or less than the emission limits specified in paragraph (c) of this section.

(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the SO₂ control system is not being operated because of malfunction or maintenance of the SO₂ control system.

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine SO₂ emission rate or fuel oil sulfur content; or (2) maintaining fuel records as described in §60.49b(r).

(k)(1) Except as provided in paragraphs (k)(2), (k)(3), and (k)(4) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, natural gas, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO₂ emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. For facilities complying with the percent reduction standard and paragraph (k)(3) of this section, only the heat input supplied to the affected facility from the combustion of coal and oil is counted in paragraph (k) of this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(2) Units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with a potential SO₂ emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO₂ emissions limit in paragraph (k)(1) of this section.

(3) Units that are located in a noncontinental area and that combust coal, oil, or natural gas shall not discharge any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.50 lb/MMBtu) heat input if the affected facility combusts oil or natural gas.

(4) As an alternative to meeting the requirements under paragraph (k)(1) of this section, modified facilities that combust coal or a mixture of coal with other fuels shall not cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.
§60.43b Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 that combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input, (i) If the affected facility combusts only coal, or

(ii) If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(3) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts coal or coal and other fuels and

(i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,

(ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less,

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for coal or coal and other solid fuels, and


(b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce SO₂ emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(c) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.

(2) 86 ng/J (0.20 lb/MMBtu) heat input if (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood;

(ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood; and
(iii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less.

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input;

(i) If the affected facility combusts only municipal-type solid waste; or

(ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and

(i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less;

(ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less;

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for municipal-type solid waste, or municipal-type solid waste and other fuels; and

(iv) Construction of the affected facility commenced after June 19, 1984, but on or before November 25, 1986.

(e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum heat input capacity.

(f) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu), except:

(1) As an alternative to meeting the requirements of paragraph (h)(1) of this section, the owner or operator of an affected facility for which construction commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, no owner or operator of an affected facility that commenced construction after February 28, 2005 shall cause to be discharged into the atmosphere any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and
(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity of 73 MW (250 MMBtu/h) or less shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity greater than 73 MW (250 MMBtu/h) shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 37 ng/J (0.085 lb/MMBtu) heat input.

(5) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility not located in a noncontinental area that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.30 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard in §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO2 or PM emissions is not subject to the PM limits in (h)(1) of this section.

(6) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility located in a noncontinental area that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.5 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard in §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO2 or PM emissions is not subject to the PM limits in (h)(1) of this section.


§60.44b Standard for nitrogen oxides (NOX).

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NOX (expressed as NO2) in excess of the following emission limits:

<table>
<thead>
<tr>
<th>Fuel/steam generating unit type</th>
<th>Nitrogen oxide emission limits (expressed as NO2) heat input</th>
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<td></td>
<td>ng/J</td>
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<td>(1) Natural gas and distillate oil, except (4):</td>
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<td>(i) Low heat release rate</td>
<td>43</td>
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<td></td>
</tr>
<tr>
<td>(i) Low heat release rate</td>
<td>130</td>
</tr>
<tr>
<td>(ii) High heat release rate</td>
<td>170</td>
</tr>
<tr>
<td>(3) Coal:</td>
<td></td>
</tr>
<tr>
<td>(i) Mass-feed stoker</td>
<td>210</td>
</tr>
</tbody>
</table>
### Fuel/steam generating unit type

<table>
<thead>
<tr>
<th>Nitrogen oxide emission limits (expressed as NO₂)</th>
<th>ng/J</th>
<th>lb/MMBTu</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ii) Spreader stoker and fluidized bed combustion</td>
<td>260</td>
<td>0.60</td>
</tr>
<tr>
<td>(iii) Pulverized coal</td>
<td>300</td>
<td>0.70</td>
</tr>
<tr>
<td>(iv) Lignite, except (v)</td>
<td>260</td>
<td>0.60</td>
</tr>
<tr>
<td>(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace</td>
<td>340</td>
<td>0.80</td>
</tr>
<tr>
<td>(vi) Coal-derived synthetic fuels</td>
<td>210</td>
<td>0.50</td>
</tr>
</tbody>
</table>

### (4) Duct burner used in a combined cycle system:

<table>
<thead>
<tr>
<th></th>
<th>ng/J</th>
<th>lb/MMBTu</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Natural gas and distillate oil</td>
<td>86</td>
<td>0.20</td>
</tr>
<tr>
<td>(ii) Residual oil</td>
<td>170</td>
<td>0.40</td>
</tr>
</tbody>
</table>

(b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NOₓ in excess of a limit determined by the use of the following formula:

\[
E_n = \frac{[EL_{\phi}H_{\phi}] + [EL_{ro}H_{ro}] + [EL_cH_c]}{[H_{\phi} + H_{ro} + H_c]}
\]

Where:

- \( E_n \) = NOₓ emission limit (expressed as NO₂), ng/J (lb/MMBtu);
- \( EL_{\phi} \) = Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);
- \( H_{\phi} \) = Heat input from combustion of natural gas or distillate oil, J (MMBtu);
- \( EL_{ro} \) = Appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/MMBtu);
- \( H_{ro} \) = Heat input from combustion of residual oil, J (MMBtu);
- \( EL_c \) = Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu); and
- \( H_c \) = Heat input from combustion of coal, J (MMBtu).

(c) Except as provided under paragraph (d) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal or oil, natural gas (or any combination of the three), and wood, or any other fuel shall cause to be discharged into the atmosphere any gases that contain NOₓ in excess of the emission limit for the coal, oil, natural gas (or any combination of the three), combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section. This standard does not apply to an affected facility that is subject to and in compliance with a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, natural gas (or any combination of the three).

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts natural
gas and/or distillate oil with a potential SO₂ emissions rate of 26 ng/J (0.060 lb/MMBtu) or less with wood, municipal-
type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected
facility any gases that contain NOₓ in excess of 130 ng/J (0.30 lb/MMBtu) heat input unless the affected facility has
an annual capacity factor for natural gas, distillate oil, or a mixture of these fuels of 10 percent (0.10) or less and is
subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor
of 10 percent (0.10) or less for natural gas, distillate oil, or a mixture of these fuels.

(e) Except as provided under paragraph (f) of this section, on and after the date on which the initial performance test
is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an
affected facility that simultaneously combuts only coal, oil, or natural gas with byproduct/waste shall cause to be
discharged into the atmosphere any gases that contain NOₓ in excess of the emission limit determined by the
following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent
(0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an
annual capacity factor of 10 percent (0.10) or less:

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may
petition the Administrator within 180 days of the initial startup of the affected facility to establish a NOₓ emission limit
that shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include
sufficient and appropriate data, as determined by the Administrator, such as NOₓ emissions from the affected facility,
and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

(1) Any owner or operator of an affected facility petitioning for a facility-specific NOₓ emission limit under this section
shall:

(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section
or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, by conducting a 30-day performance test
as provided in §60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be
combusted in the affected facility; and

(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in
paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, when
gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same
 technological system of emission reduction applied when demonstrating compliance under paragraph (f)(1)(i) of this
section.

(2) The NOₓ emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in
paragraph (a)(2) or (l)(1) of this section, as appropriate, shall be applicable to the affected facility until and unless the
petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific NOₓ
emission limit will be established at the NOₓ emission level achievable when the affected facility is combusting oil or
natural gas and byproduct/waste in a manner that the Administrator determines to be consistent with minimizing NOₓ
emissions. In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NOₓ limit.
The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the
 Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed
at any point.

(g) Any owner or operator of an affected facility that combats hazardous waste (as defined by 40 CFR part 261 or 40
CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the
affected facility for a waiver from compliance with the NOₓ emission limit that applies specifically to that affected
facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on NOₓ
emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the
quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the
affected facility is able to comply with the NOₓ emission limits required by this section. The owner or operator of the
affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal
destruction efficiency requirements for hazardous waste specified in an applicable federally enforceable requirement
preclude compliance with the NOₓ emission limits of this section. The NOₓ emission limits for natural gas or distillate
oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, are
applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70
for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB’s).) In lieu of
amending this subpart, a letter will be sent to the facility describing the facility-specific NOx limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(h) For purposes of paragraph (i) of this section, the NOx standards under this section apply at all times including periods of startup, shutdown, or malfunction.

(i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

(j) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:

(1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;

(2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and

(3) Are subject to a federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less.

(k) Affected facilities that meet the criteria described in paragraphs (j)(1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 MMBtu/hr) or less, are not subject to the NOx emission limits under this section.

(l) On and after the date on which the initial performance test is completed or is required to be completed under 60.8, whichever date is first, no owner or operator of an affected facility that commenced construction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NOx (expressed as NO2) in excess of the following limits:

(1) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts coal, oil, or natural gas (or any combination of the three), alone or with any other fuels. The affected facility is not subject to this limit if it is subject to and in compliance with a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas (or any combination of the three); or

(2) If the affected facility has a low heat release rate and combusts natural gas or distillate oil in excess of 30 percent of the heat input on a 30-day rolling average from the combustion of all fuels, a limit determined by use of the following formula:

\[ E_n = \frac{0.10 \times H_{go} + 0.20 \times H_r}{H_{go} + H_r} \]

Where:

- \( E_n \) = NOx emission limit, (lb/MMBtu);
- \( H_{go} \) = 30-day heat input from combustion of natural gas or distillate oil; and
- \( H_r \) = 30-day heat input from combustion of any other fuel.

(3) After February 27, 2006, units where more than 10 percent of total annual output is electrical or mechanical may comply with an optional limit of 270 ng/J (2.1 lb/MWh) gross energy output, based on a 30-day rolling average. Units complying with this output-based limit must demonstrate compliance according to the procedures of §60.48Da(i) of
subpart Da of this part, and must monitor emissions according to §60.49Da(c), (k), through (n) of subpart Da of this part.


§60.45b Compliance and performance test methods and procedures for sulfur dioxide.

(a) The SO$_2$ emission standards in §60.42b apply at all times. Facilities burning coke oven gas alone or in combination with any other gaseous fuels or distillate oil are allowed to exceed the limit 30 operating days per calendar year for SO$_2$ control system maintenance.

(b) In conducting the performance tests required under §60.8, the owner or operator shall use the methods and procedures in appendix A (including fuel certification and sampling) of this part or the methods and procedures as specified in this section, except as provided in §60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential SO$_2$ emission rate ($\%P_s$) and the SO$_2$ emission rate ($E_s$) pursuant to §60.42b following the procedures listed below, except as provided under paragraph (d) and (k) of this section.

(1) The initial performance test shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the SO$_2$ standards shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.

(2) If only coal, only oil, or a mixture of coal and oil is combusted, the following procedures are used:

(i) The procedures in Method 19 of appendix A-7 of this part are used to determine the hourly SO$_2$ emission rate ($E_{ho}$) and the 30-day average emission rate ($E_{ao}$). The hourly averages used to compute the 30-day averages are obtained from the CEMS of §60.47b(a) or (b).

(ii) The percent of potential SO$_2$ emission rate ($\%P_s$) emitted to the atmosphere is computed using the following formula:

$$\%P_s = 100 \left(1 - \frac{\%R_c}{100}\right) \left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$ = Potential SO$_2$ emission rate, percent;

$\%R_c$ = SO$_2$ removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$ = SO$_2$ removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(3) If coal or oil is combusted with other fuels, the same procedures required in paragraph (c)(2) of this section are used, except as provided in the following:

(i) An adjusted hourly SO$_2$ emission rate ($E_{ho}^*$) is used in Equation 19-19 of Method 19 of appendix A of this part to compute an adjusted 30-day average emission rate ($E_{ao}^*$). The $E_{ho}^*$ is computed using the following formula:

$$E_{ho}^* = E_{ho} - E_m \left(1 - X_n \right) \frac{X_3}{X_1}$$
Where:

\[ E_{ho} = \text{Adjusted hourly SO}_2 \text{ emission rate, ng/J (lb/MMBtu);} \]

\[ E_{ho} = \text{Hourly SO}_2 \text{ emission rate, ng/J (lb/MMBtu);} \]

\[ E_w = \text{SO}_2 \text{ concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value } E_w \text{ for each fuel lot is used for each hourly average during the time that the lot is being combusted; and} \]

\[ X_k = \text{Fraction of total heat input from fuel combustion derived from coal, oil, or coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.} \]

(ii) To compute the percent of potential \text{SO}_2 \text{ emission rate (%P}_s\text{), an adjusted %R}_0 \text{ (%R}_0\text{) is computed from the adjusted } E_{ao} \text{ from paragraph (b)(3)(i) of this section and an adjusted average } \text{SO}_2 \text{ inlet rate } (E_{aio}) \text{ using the following formula:}

\[
%R_0 = 100 \left( 1 - \frac{E_{ao}}{E_{aio}} \right)
\]

To compute \[ E_{ao} \text{, an adjusted hourly } \text{SO}_2 \text{ inlet rate } (E_{ao}) \text{ is used. The } E_{ao} \text{ is computed using the following formula:}

\[
E_{ao} = \frac{E_{ai} - E_w (1 - X_k)}{X_k}
\]

Where:

\[ E_{ao} = \text{Adjusted hourly } \text{SO}_2 \text{ inlet rate, ng/J (lb/MMBtu);} \text{ and} \]

\[ E_{ai} = \text{Hourly } \text{SO}_2 \text{ inlet rate, ng/J (lb/MMBtu).} \]

(4) The owner or operator of an affected facility subject to paragraph (c)(3) of this section does not have to measure parameters \[ E_w \text{ or } X_k \text{ if the owner or operator elects to assume that } X_k = 1.0. \text{ Owners or operators of affected facilities who assume } X_k = 1.0 \text{ shall:}

(i) Determine %P}_s \text{ following the procedures in paragraph (c)(2) of this section; and}

(ii) Sulfur dioxide emissions } (E_2) \text{ are considered to be in compliance with } \text{SO}_2 \text{ emission limits under §60.42b.}

(5) The owner or operator of an affected facility that qualifies under the provisions of §60.42b(d) does not have to measure parameters \[ E_w \text{ or } X_k \text{ in paragraph (c)(3) of this section if the owner or operator of the affected facility elects to measure } \text{SO}_2 \text{ emission rates of the coal or oil following the fuel sampling and analysis procedures in Method 19 of appendix A-7 of this part.}

(d) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility that combusts only very low sulfur oil, natural gas, or a mixture of these fuels, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:

(1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;

(2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a CEMS is used, or based on a daily
average if Method 6B of appendix A of this part or fuel sampling and analysis procedures under Method 19 of appendix A of this part are used.

(e) The owner or operator of an affected facility subject to §60.42b(d)(1) shall demonstrate the maximum design capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. This demonstration will be made during the initial performance test and a subsequent demonstration may be requested at any other time. If the 24-hour average firing rate for the affected facility is less than the maximum design capacity provided by the manufacturer of the affected facility, the 24-hour average firing rate shall be used to determine the capacity utilization rate for the affected facility, otherwise the maximum design capacity provided by the manufacturer is used.

(f) For the initial performance test required under §60.8, compliance with the SO2 emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for SO2 for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.

(g) After the initial performance test required under §60.8, compliance with the SO2 emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for SO2 for 30 successive steam generating unit operating days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for SO2 are calculated to show compliance with the standard.

(h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid SO2 emissions data in calculating %Ps and Eho under paragraph (c), of this section whether or not the minimum emissions data requirements under §60.46b are achieved. All valid emissions data, including valid SO2 emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating %Ps and Eho pursuant to paragraph (c) of this section.

(i) During periods of malfunction or maintenance of the SO2 control systems when oil is combusted as provided under §60.42b(i), emission data are not used to calculate %Ps or Eho under §60.42b(a), (b) or (c), however, the emissions data are used to determine compliance with the emission limit under §60.42b(i).

(j) The owner or operator of an affected facility that only combats very low sulfur oil, natural gas, or a mixture of these fuels with any other fuels not subject to an SO2 standard is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

(k) The owner or operator of an affected facility seeking to demonstrate compliance in §§60.42b(d)(4), 60.42b(j), 60.42b(k)(2), and 60.42b(k)(3) (when not burning coal) shall follow the applicable procedures in §60.49b(r).

[72 FR 32742, June 13, 2007, as amended at 74 FR 5086, Jan. 28, 2009]

§60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.

(a) The PM emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The NOx emission standards under §60.44b apply at all times.

(b) Compliance with the PM emission standards under §60.43b shall be determined through performance testing as described in paragraph (d) of this section, except as provided in paragraph (i) of this section.

(c) Compliance with the NOx emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.
(d) To determine compliance with the PM emission limits and opacity limits under §60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, using the following procedures and reference methods:

1. Method 3A or 3B of appendix A-2 of this part is used for gas analysis when applying Method 5 of appendix A-3 of this part or Method 17 of appendix A-6 of this part.

2. Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

   i. Method 5 of appendix A of this part shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and

   ii. Method 17 of appendix A-6 of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of sections 8.1 and 11.1 of Method 5B of appendix A-3 of this part may be used in Method 17 of appendix A-6 of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A-6 of this part after wet FGD systems if the effluent is saturated or laden with water droplets.

   iii. Method 5B of appendix A of this part is to be used only after wet FGD systems.

3. Method 1 of appendix A of this part is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

4. For Method 5 of appendix A of this part, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160±14 °C (320±25 °F).

5. For determination of PM emissions, the oxygen (O₂) or CO₂ sample is obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

6. For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rate expressed in ng/J heat input is determined using:

   i. The O₂ or CO₂ measurements and PM measurements obtained under this section;

   ii. The dry basis F factor; and

   iii. The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

7. Method 9 of appendix A of this part is used for determining the opacity of stack emissions.

(e) To determine compliance with the emission limits for NOX required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring NOX under §60.48(b).

1. For the initial compliance test, NOX from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOX emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

2. Following the date on which the initial performance test is completed or is required to be completed in §60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal (except as specified under §60.46b(e)(4)) or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NOX emission standards in §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated for each steam
generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

(3) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity greater than 73 MW (250 MMBtu/hr) and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the NOx standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

(4) Following the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NOx standards in §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NOx emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

(5) If the owner or operator of an affected facility that combusts residual oil does not sample and analyze the residual oil for nitrogen content, as specified in §60.49b(e), the requirements of §60.48b(g)(1) apply and the provisions of §60.48b(g)(2) are inapplicable.

(f) To determine compliance with the emissions limits for NOx required by §60.44b(a)(4) or §60.44b(l) for duct burners used in combined cycle systems, either of the procedures described in paragraph (f)(1) or (2) of this section may be used:

(1) The owner or operator of an affected facility shall conduct the performance test required under §60.8 as follows:

   (i) The emissions rate (E) of NOx shall be computed using Equation 1 in this section:

\[
E = E_{tg} + \left( \frac{H_g}{H_b} \right) \left( E_{tg} - E_{gb} \right) \quad (Eq.1)
\]

Where:

E = Emissions rate of NOx from the duct burner, ng/J (lb/MMBtu) heat input;

E_{tg} = Combined effluent emissions rate, in ng/J (lb/MMBtu) heat input using appropriate F factor as described in Method 19 of appendix A of this part;

H_g = Heat input rate to the combustion turbine, in J/hr (MMBtu/hr);

H_b = Heat input rate to the duct burner, in J/hr (MMBtu/hr); and

E_{gb} = Emissions rate from the combustion turbine, in ng/J (lb/MMBtu) heat input calculated using appropriate F factor as described in Method 19 of appendix A of this part.

(ii) Method 7E of appendix A of this part or Method 320 of appendix A of part 63 shall be used to determine the NOx concentrations. Method 3A or 3B of appendix A of this part shall be used to determine O2 concentration.

(iii) The owner or operator shall identify and demonstrate to the Administrator's satisfaction suitable methods to determine the average hourly heat input rate to the combustion turbine and the average hourly heat input rate to the affected duct burner.
(iv) Compliance with the emissions limits under §60.44b(a)(4) or §60.44b(l) is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests; or

(2) The owner or operator of an affected facility may elect to determine compliance on a 30-day rolling average basis by using the CEMS specified under §60.48b for measuring NOx and O2 and meet the requirements of §60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NOx emissions rate at the outlet from the steam generating unit shall constitute the NOx emissions rate from the duct burner of the combined cycle system.

(g) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method or the heat input method described in sections 5 and 7.3 of the ASME Power Test Codes 4.1 (incorporated by reference, see §60.17). This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of §60.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of each facility, for affected facilities meeting the criteria of §60.44b(k). Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

(h) The owner or operator of an affected facility described in §60.44b(j) that has a heat input capacity greater than 73 MW (250 MMBtu/hr) shall:

(1) Conduct an initial performance test as required under §60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the NOx emission standards under §60.44b using Method 7, 7A, or 7E of appendix A of this part, Method 320 of appendix A of part 63 of this chapter, or other approved reference methods; and

(2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the NOx emission standards under §60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, or 7E of appendix A of this part, Method 320 of appendix A of part 63, or other approved reference methods.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the PM limit in paragraphs §60.43b(a)(4) or §60.43b(h)(5) shall follow the applicable procedures in §60.49b(r).

(j) In place of PM testing with Method 5 or 5B of appendix A-3 of this part, or Method 17 of appendix A-6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall comply with the requirements specified in paragraphs (j)(1) through (j)(14) of this section.

(1) Notify the Administrator one month before starting use of the system.

(2) Notify the Administrator one month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS
specified in paragraph (j) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraphs (j)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (j)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (j)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O₂ (or CO₂) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and

(ii) For O₂ (or CO₂), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours per 30-day rolling average.

(14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in §60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert_tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.


§60.47b Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (b) and (f) of this section, the owner or operator of an affected facility subject to the SO₂ standards in §60.42b shall install, calibrate, maintain, and operate CEMS for measuring SO₂ concentrations and either O₂ or CO₂ concentrations and shall record the output of the systems. For units complying with the percent
reduction standard, the SO₂ and either O₂ or CO₂ concentrations shall both be monitored at the inlet and outlet of the SO₂ control device. If the owner or operator has installed and certified SO₂ and O₂ or CO₂ CEMS according to the requirements of §75.20(c)(1) of this chapter and appendix A to part 75 of this chapter, and is continuing to meet the ongoing quality assurance requirements of §75.21 of this chapter and appendix B to part 75 of this chapter, those CEMS may be used to meet the requirements of this section, provided that:

(1) When relative accuracy testing is conducted, SO₂ concentration data and CO₂ (or O₂) data are collected simultaneously; and

(2) In addition to meeting the applicable SO₂ and CO₂ (or O₂) relative accuracy specifications in Figure 2 of appendix B to part 75 of this chapter, the relative accuracy (RA) standard in section 13.2 of Performance Specification 2 in appendix B to this part is met when the RA is calculated on a lb/MMBtu basis; and

(3) The reporting requirements of §60.49b are met. SO₂ and CO₂ (or O₂) data used to meet the requirements of §60.49b shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the SO₂ data have been bias adjusted according to the procedures of part 75 of this chapter.

(b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emissions and percent reduction by:

(1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO₂ input rate, or

(2) Measuring SO₂ according to Method 6B of appendix A of this part at the inlet or outlet to the SO₂ control system. An initial stratification test is required to verify the adequacy of the sampling location for Method 6B of appendix A of this part. The stratification test shall consist of three paired runs of a suitable SO₂ and CO₂ measurement train operated at the candidate location and a second similar train operated according to the procedures in Section 3.2 and the applicable procedures in Section 7 of Performance Specification 2. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 or 3B of appendix A of this part or Methods 6C or Method 320 of appendix A of part 63 of this chapter are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part, 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.

(3) A daily SO₂ emission rate, ED, shall be determined using the procedure described in Method 6A of appendix A of this part, section 7.6.2 (Equation 6A-8) and stated in ng/J (lb/MMBtu) heat input.

(4) The mean 30-day emission rate is calculated using the daily measured values in ng/J (lb/MMBtu) for 30 successive steam generating unit operating days using equation 19-20 of Method 19 of appendix A of this part.

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.

(d) The 1-hour average SO₂ emission rates measured by the CEMS required by paragraph (a) of this section and required under §60.13(h) is expressed in ng/J or lb/MMBtu heat input and is used to calculate the average emission rates under §60.42(b). Each 1-hour average SO₂ emission rate must be based on 30 or more minutes of steam generating unit operation. The hourly averages shall be calculated according to §60.13(h)(2). Hourly SO₂ emission rates are not calculated if the affected facility is operated less than 30 minutes in a given clock hour and are not counted toward determination of a steam generating unit operating day.

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.
(1) Except as provided for in paragraph (e)(4) of this section, all CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Except as provided for in paragraph (e)(4) of this section, quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the SO2 CEMS at the inlet to the SO2 control device is 125 percent of the maximum estimated hourly potential SO2 emissions of the fuel combusted, and the span value of the CEMS at the outlet to the SO2 control device is 50 percent of the maximum estimated hourly potential SO2 emissions of the fuel combusted. Alternatively, SO2 span values determined according to section 2.1.1 in appendix A to part 75 of this chapter may be used.

(4) As an alternative to meeting the requirements of requirements of paragraphs (e)(1) and (e)(2) of this section, the owner or operator may elect to implement the following alternative data accuracy assessment procedures:

(i) For all required CO2 and O2 monitors and for SO2 and NOx monitors with span values greater than or equal to 100 ppm, the daily calibration error test and calibration adjustment procedures described in sections 2.1.1 and 2.1.3 of appendix B to part 75 of this chapter may be followed instead of the CD assessment procedures in Procedure 1, section 4.1 of appendix F to this part.

(ii) For all required CO2 and O2 monitors and for SO2 and NOx monitors with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with section 2.2.1 of appendix B to part 75 of this chapter, instead of performing the cylinder gas audits (CGAs) described in Procedure 1, section 5.1.2 of appendix F to this part. If this option is selected: The frequency of the linearity checks shall be as specified in section 2.2.1 of appendix B to part 75 of this chapter; the applicable linearity specifications in section 3.2 of appendix A to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.2.3 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.2.4 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the cylinder gas audits described in Procedure 1, section 5.1.2 of appendix F to this part shall be performed for SO2 and NOx span values less than or equal to 30 ppm; and

(iii) For SO2, CO2, and O2 monitoring systems and for NOx emission rate monitoring systems, RATAs may be performed in accordance with section 2.3 of appendix B to part 75 of this chapter instead of following the procedures described in Procedure 1, section 5.1.1 of appendix F to this part. If this option is selected: The frequency of each RATA shall be as specified in section 2.3.1 of appendix B to part 75 of this chapter; the applicable relative accuracy specifications shown in Figure 2 in appendix B to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.3.2 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.3.3 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the relative accuracy specification in section 13.2 of Performance Specification 2 in appendix B to this part shall be met on a lb/MMBtu basis for SO2 (regardless of the SO2 emission level during the RATA), and for NOx when the average NOx emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu.

(f) The owner or operator of an affected facility that combusts very low sulfur oil or is demonstrating compliance under §60.45b(k) is not subject to the emission monitoring requirements under paragraph (a) of this section if the owner or operator maintains fuel records as described in §60.49b(r).


§60.48b Emission monitoring for particulate matter and nitrogen oxides.

(a) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard under §60.43b and meeting the conditions under paragraphs (j)(1), (2), (3), (4), (5), or (6) of this section who elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in §60.11 to demonstrate
compliance with the applicable limit in §60.43b by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (i.e., 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (i.e., 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (i.e., 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in §60.46d(d)(7).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.
(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NOx standard under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Install, calibrate, maintain, and operate CEMS for measuring NOX and O2 (or CO2) emissions discharged to the atmosphere, and shall record the output of the system; or

(2) If the owner or operator has installed a NOX emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

(c) The CEMS required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(d) The 1-hour average NOX emission rates measured by the continuous NOX monitor required by paragraph (b) of this section and required under §60.19(h) shall be expressed in ng/J or lb/MBtu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.19(h)(2).

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

(1) For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a COMS shall be between 60 and 80 percent.

(2) For affected facilities combusting coal, oil, or natural gas, the span value for NOX is determined using one of the following procedures:

(i) Except as provided under paragraph (e)(2)(ii) of this section, NOx span values shall be determined as follows:

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Span values for NOx (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>500.</td>
</tr>
<tr>
<td>Oil</td>
<td>500.</td>
</tr>
<tr>
<td>Coal</td>
<td>1,000.</td>
</tr>
<tr>
<td>Mixtures</td>
<td>500 (x + y) + 1,000z.</td>
</tr>
</tbody>
</table>

Where:

x = Fraction of total heat input derived from natural gas;

y = Fraction of total heat input derived from oil; and

z = Fraction of total heat input derived from coal.

(ii) As an alternative to meeting the requirements of paragraph (e)(2)(i) of this section, the owner or operator of an affected facility may elect to use the NOx span values determined according to section 2.1.2 in appendix A to part 75 of this chapter.
(3) All span values computed under paragraph (e)(2)(i) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm. Span values computed under paragraph (e)(2)(ii) of this section shall be rounded off according to section 2.1.2 in appendix A to part 75 of this chapter.

(f) When NOX emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

(g) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less, and that has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, gasified coal, or any mixture of these fuels, greater than 10 percent (0.10) shall:

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section; or

(2) Monitor steam generating unit operating conditions and predict NOX emission rates as specified in a plan submitted pursuant to §60.49b(c).

(h) The owner or operator of a duct burner, as described in §60.41b, that is subject to the NOX standards in §60.44b(a)(4), §60.44b(e), or §60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NOX emissions.

(i) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) is not required to install or operate a CEMS for measuring NOX emissions.

(j) The owner or operator of an affected facility that meets the conditions in either paragraph (j)(1), (2), (3), (4), (5), (6), or (7) of this section is not required to install or operate a COMS if:

(1) The affected facility uses a PM CEMS to monitor PM emissions; or

(2) The affected facility burns only liquid (excluding residual oil) or gaseous fuels with potential SO2 emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to reduce SO2 or PM emissions. The owner or operator must maintain fuel records of the sulfur content of the fuels burned, as described under §60.49b(r); or

(3) The affected facility burns coke oven gas alone or in combination with fuels meeting the criteria in paragraph (j)(2) of this section and does not use a post-combustion technology to reduce SO2 or PM emissions; or

(4) The affected facility does not use post-combustion technology (except a wet scrubber) for reducing PM, SO2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (j)(4)(i) through (iv) of this section; or

(i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (j)(4)(i)(A) through (D) of this section.

(A) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(B) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).
(C) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(D) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(ii) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(iii) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(iv) You must record the CO measurements and calculations performed according to paragraph (j)(4) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(5) The affected facility uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most current requirements in section §60.48Da of this part; or

(6) The affected facility uses an ESP as the primary PM control device and uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the most current requirements in section §60.48Da of this part; or

(7) The affected facility burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

(k) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in §60.46b(j). The CEMS specified in paragraph §60.46b(j) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(l) An owner or operator of an affected facility that is subject to an opacity standard under §60.43b(f) is not required to operate a COMS provided that the unit burns only gaseous fuels and/or liquid fuels (excluding residue oil) with a potential SO₂ emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit operates according to a written site-specific monitoring plan approved by the permitting authority is not required to operate a COMS. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under §60.49b(h).

§60.49b Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility;

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(ii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i);

(3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired; and

(4) Notification that an emerging technology will be used for controlling emissions of SO2. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42b(a) unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO2, PM, and/or NOx emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of this part. The owner or operator of each affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

(c) The owner or operator of each affected facility subject to the NOx standard in §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions in the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored in §60.48b(g)(2) and the records to be maintained in §60.49b(g). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. An affected facility burning coke oven gas alone or in combination with other gaseous fuels or distillate oil shall submit this plan to the Administrator for approval within 360 days of the initial startup of the affected facility or by November 30, 2009, whichever date comes later. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NOx emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas O2 level);

(2) Include the data and information that the owner or operator used to identify the relationship between NOx emission rates and these operating conditions; and

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(g).

(d) Except as provided in paragraph (d)(2) of this section, the owner or operator of an affected facility shall record and maintain records as specified in paragraph (d)(1) of this section.

(1) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil,
natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(2) As an alternative to meeting the requirements of paragraph (d)(1) of this section, the owner or operator of an affected facility that is subject to a federally enforceable permit restricting fuel use to a single fuel such that the facility is not required to continuously monitor any emissions (excluding opacity) or parameters indicative of emissions may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(e) For an affected facility that combusts residual oil and meets the criteria under §§60.46b(e)(4), 60.44b(j), or (k), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the affected facility and calculate the average fuel nitrogen content for the reporting period. The nitrogen content shall be determined using ASTM Method D4629 (incorporated by reference, see §60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

(f) For an affected facility subject to the opacity standard in §60.43b, the owner or operator shall maintain records of opacity. In addition, an owner or operator that elects to monitor emissions according to the requirements in §60.48b(a) shall maintain records according to the requirements specified in paragraphs (f)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (f)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (f)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator.

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NOX standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The average hourly NOx emission rates (expressed as NO2) (ng/J or lb/MMBtu heat input) measured or predicted;

(3) The 30-day average NOx emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
(4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

(7) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any excess emissions that occurred during the reporting period.

(1) Any affected facility subject to the opacity standards in §60.43b(f) or to the operating parameter monitoring requirements in §60.13(i)(1).

(2) Any affected facility that is subject to the NOx standard of §60.44b, and that:

(i) Combusts natural gas, distillate oil, gasified coal, or residual oil with a nitrogen content of 0.3 weight percent or less; or

(ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NOx emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).

(3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).

(4) For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NOx emission rate, as determined under §60.46b(e), that exceeds the applicable emission limits in §60.44b.

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for NOx under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.

(j) The owner or operator of any affected facility subject to the SO2 standards under §60.42b shall submit reports.

(k) For each affected facility subject to the compliance and performance testing requirements of §60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates covered in the reporting period;

(2) Each 30-day average SO2 emission rate (ng/J or lb/MMBtu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken; For an exceedance due to maintenance of the SO2 control system covered in paragraph 60.45b(a), the report shall identify the days on which the maintenance was performed and a description of the maintenance;
(3) Each 30-day average percent reduction in SO₂ emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(4) Identification of the steam generating unit operating days that coal or oil was combusted and for which SO₂ or diluent (O₂ or CO₂) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken;

(5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;

(6) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;

(7) Identification of times when hourly averages have been obtained based on manual sampling methods;

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part; and

(11) The annual capacity factor of each fired as provided under paragraph (d) of this section.

(l) For each affected facility subject to the compliance and performance testing requirements of §60.45b(d) and the reporting requirements of paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates when the facility was in operation during the reporting period;

(2) The 24-hour average SO₂ emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(3) Identification of the steam generating unit operating days that coal or oil was combusted for which SO₂ or diluent (O₂ or CO₂) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and description of corrective action taken;

(4) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;

(5) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted;

(6) Identification of times when hourly averages have been obtained based on manual sampling methods;

(7) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(8) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(9) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Procedure 1 of appendix F 1 of this part. If the owner or operator elects to implement the alternative data assessment procedures described in §§60.47b(e)(4)(i) through (e)(4)(iii), each data assessment report shall include a summary of the results of all of the
RATAs, linearity checks, CGAs, and calibration error or drift assessments required by §§60.47b(e)(4)(i) through (e)(4)(iii).

(m) For each affected facility subject to the SO₂ standards in §60.42(b) for which the minimum amount of data required in §60.47b(c) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

(1) The number of hourly averages available for outlet emission rates and inlet emission rates;

(2) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19 of appendix A of this part, section 7;

(3) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19 of appendix A of this part, section 7; and

(4) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19 of appendix A of this part, section 7.

(n) If a percent removal efficiency by fuel pretreatment (i.e., %Rf) is used to determine the overall percent reduction (i.e., %Rₐ) under §60.45b, the owner or operator of the affected facility shall submit a signed statement with the report.

(1) Indicating what removal efficiency by fuel pretreatment (i.e., %Rf) was credited during the reporting period;

(2) Listing the quantity, heat content, and date each pre-treated fuel shipment was received during the reporting period, the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the reporting period;

(3) Documenting the transport of the fuel from the fuel pretreatment facility to the steam generating unit; and

(4) Including a signed statement from the owner or operator of the fuel pretreatment facility certifying that the percent removal efficiency achieved by fuel pretreatment was determined in accordance with the provisions of Method 19 of appendix A of this part and listing the heat content and sulfur content of each fuel before and after fuel pretreatment.

(o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

(p) The owner or operator of an affected facility described in §60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The number of hours of operation; and

(3) A record of the hourly steam load.

(q) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator a report containing:

(1) The annual capacity factor over the previous 12 months;

(2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and
(3) If the affected facility meets the criteria described in §60.44b(j), the results of any NO\textsubscript{X} emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO\textsubscript{X} emission test.

(r) The owner or operator of an affected facility who elects to use the fuel based compliance alternatives in §60.42b or §60.43b shall either:

(1) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil, natural gas, wood, a mixture of these fuels, or any of these fuels (or a mixture of these fuels) in combination with other fuels that are known to contain an insignificant amount of sulfur in §60.42b(j) or §60.42b(k) shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in §60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period; or

(2) The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in §60.42b or §60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date you intend to demonstrate compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:

(i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;

(ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;

(iii) The ratio of different fuels in the mixture; and

(iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling.

(s) Facility specific NO\textsubscript{X} standard for Cytec Industries Fortier Plant's C.AOG incinerator located in Westwego, Louisiana:

(1) Definitions.

Oxidation zone is defined as the portion of the C.AOG incinerator that extends from the inlet of the oxidizing zone combustion air to the outlet gas stack.

Reducing zone is defined as the portion of the C.AOG incinerator that extends from the burner section to the inlet of the oxidizing zone combustion air.

Total inlet air is defined as the total amount of air introduced into the C.AOG incinerator for combustion of natural gas and chemical by-product waste and is equal to the sum of the air flow into the reducing zone and the air flow into the oxidation zone.

(2) Standard for nitrogen oxides. (i) When fossil fuel alone is combusted, the NO\textsubscript{X} emission limit for fossil fuel in §60.44b(a) applies.

(ii) When natural gas and chemical by-product waste are simultaneously combusted, the NO\textsubscript{X} emission limit is 289 ng/J (0.67 lb/MMBtu) and a maximum of 81 percent of the total inlet air provided for combustion shall be provided to the reducing zone of the C.AOG incinerator.
(3) *Emission monitoring.* (i) The percent of total inlet air provided to the reducing zone shall be determined at least every 15 minutes by measuring the air flow of all the air entering the reducing zone and the air flow of all the air entering the oxidation zone, and compliance with the percentage of total inlet air that is provided to the reducing zone shall be determined on a 3-hour average basis.

(ii) The NO\textsubscript{x} emission limit shall be determined by the compliance and performance test methods and procedures for NO\textsubscript{x} in §60.46b(i).

(iii) The monitoring of the NO\textsubscript{x} emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements.* (i) The owner or operator of the C.AOG incinerator shall submit a report on any excursions from the limits required by paragraph (a)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the C.AOG incinerator shall keep records of the monitoring required by paragraph (a)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner of operator of the C.AOG incinerator shall perform all the applicable reporting and recordkeeping requirements of this section.

(1) Facility-specific NO\textsubscript{x} standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:

(1) *Definitions.*

*Air ratio control damper* is defined as the part of the low NO\textsubscript{x} burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.

*Flue gas recirculation line* is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

(2) *Standard for nitrogen oxides.* (i) When fossil fuel alone is combusted, the NO\textsubscript{x} emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO\textsubscript{x} emission limit is 473 ng/J (1.1 lb/MMBtu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

(3) *Emission monitoring for nitrogen oxides.* (i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.

(ii) The NO\textsubscript{x} emission limit shall be determined by the compliance and performance test methods and procedures for NO\textsubscript{x} in §60.46b.

(iii) The monitoring of the NO\textsubscript{x} emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements.* (i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

(ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner of operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of §60.49b.
(u) Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia. (1) This paragraph (u) applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia (“site”) and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of §§60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).

(i) The site shall equip the natural gas-fired boilers with low NOx technology.

(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NOx emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.

(iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a performance test to quantify criteria pollutant emissions.

(2) [Reserved]

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO2 and/or NOx and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

(w) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

(x) Facility-specific NOx standard for Weyerhaeuser Company's No. 2 Power Boiler located in New Bern, North Carolina:

(1) Standard for nitrogen oxides. (i) When fossil fuel alone is combusted, the NOx emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NOx emission limit is 215 ng/J (0.5 lb/MMBtu).

(2) Emission monitoring for nitrogen oxides. (i) The NOx emissions shall be determined by the compliance and performance test methods and procedures for NOx in §60.46b.

(ii) The monitoring of the NOx emissions shall be performed in accordance with §60.48b.

(3) Reporting and recordkeeping requirements. (i) The owner or operator of the No. 2 Power Boiler shall submit a report on any excursions from the limits required by paragraph (x)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

(ii) The owner or operator of the No. 2 Power Boiler shall keep records of the monitoring required by paragraph (x)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the No. 2 Power Boiler shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

(y) Facility-specific NOx standard for INEOS USA's AOGI located in Lima, Ohio:
(1) Standard for NO\textsubscript{X}. (i) When fossil fuel alone is combusted, the NO\textsubscript{X} emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical byproduct/waste are simultaneously combusted, the NO\textsubscript{X} emission limit is 645 ng/J (1.5 lb/MMBtu).

(2) Emission monitoring for NO\textsubscript{X}. (i) The NO\textsubscript{X} emissions shall be determined by the compliance and performance test methods and procedures for NO\textsubscript{X} in §60.46b.

(ii) The monitoring of the NO\textsubscript{X} emissions shall be performed in accordance with §60.48b.

(3) Reporting and recordkeeping requirements. (i) The owner or operator of the AOGI shall submit a report on any excursions from the limits required by paragraph (y)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the AOGI shall keep records of the monitoring required by paragraph (y)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the AOGI shall perform all the applicable reporting and recordkeeping requirements of this section.

Title 40:Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart MM—Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations

Source: 45 FR 85415, Dec. 24, 1980, unless otherwise noted.

§60.390 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to the following affected facilities in an automobile or light-duty truck assembly plant: each prime coat operation, each guide coat operation, and each topcoat operation.

(b) Exempted from the provisions of this subpart are operations used to coat plastic body components or all-plastic automobile or light-duty truck bodies on separate coating lines. The attachment of plastic body parts to a metal body before the body is coated does not cause the metal body coating operation to be exempted.

(c) The provisions of this subpart apply to any affected facility identified in paragraph (a) of this section that begins construction, reconstruction, or modification after October 5, 1979.

§60.391 Definitions.

(a) All terms used in this subpart that are not defined below have the meaning given to them in the Act and in subpart A of this part.

Applied coating solids means the volume of dried or cured coating solids which is deposited and remains on the surface of the automobile or light-duty truck body.

Automobile means a motor vehicle capable of carrying no more than 12 passengers.

Automobile and light-duty truck body means the exterior surface of an automobile or light-duty truck including hoods, fenders, cargo boxes, doors, and grill opening panels.

Bake oven means a device that uses heat to dry or cure coatings.

Electrodeposition (EDP) means a method of applying a prime coat by which the automobile or light-duty truck body is submerged in a tank filled with coating material and an electrical field is used to effect the deposition of the coating material on the body.

Electrostatic spray application means a spray application method that uses an electrical potential to increase the transfer efficiency of the coating solids. Electrostatic spray application can be used for prime coat, guide coat, or topcoat operations.

Flash-off area means the structure on automobile and light-duty truck assembly lines between the coating application system (dip tank or spray booth) and the bake oven.
Guide coat operation means the guide coat spray booth, flash-off area and bake oven(s) which are used to apply and dry or cure a surface coating between the prime coat and topcoat operation on the components of automobile and light-duty truck bodies.

Light-duty truck means any motor vehicle rated at 3,850 kilograms gross vehicle weight or less, designed mainly to transport property.

Plastic body means an automobile or light-duty truck body constructed of synthetic organic material.

Plastic body component means any component of an automobile or light-duty truck exterior surface constructed of synthetic organic material.

Prime coat operation means the prime coat spray booth or dip tank, flash-off area, and bake oven(s) which are used to apply and dry or cure the initial coating on components of automobile or light-duty truck bodies.

Purge or line purge means the coating material expelled from the spray system when clearing it.

Solids Turnover Ratio (R_{T}) means the ratio of total volume of coating solids that is added to the EDP system in a calendar month divided by the total volume design capacity of the EDP system.

Solvent-borne means a coating which contains five percent or less water by weight in its volatile fraction.

Spray application means a method of applying coatings by atomizing the coating material and directing the atomized material toward the part to be coated. Spray applications can be used for prime coat, guide coat, and topcoat operations.

Spray booth means a structure housing automatic or manual spray application equipment where prime coat, guide coat, or topcoat is applied to components of automobile or light-duty truck bodies.

Surface coating operation means any prime coat, guide coat, or topcoat operation on an automobile or light-duty truck surface coating line.

Topcoat operation means the topcoat spray booth, flash-off area, and bake oven(s) which are used to apply and dry or cure the final coating(s) on components of automobile and light-duty truck bodies.

Transfer efficiency means the ratio of the amount of coating solids transferred onto the surface of a part or product to the total amount of coating solids used.

VOC content means all volatile organic compounds that are in a coating expressed as kilograms of VOC per liter of coating solids.

Volume Design Capacity of EDP System (LE) means the total liquid volume that is contained in the EDP system (tank, pumps, recirculating lines, filters, etc.) at its designed liquid operating level.

Waterborne or water reducible means a coating which contains more than five weight percent water in its volatile fraction.

(b) The nomenclature used in this subpart has the following meanings:

\[ C_{aj} = \text{concentration of VOC (as carbon) in the effluent gas flowing through stack (j) leaving the control device (parts per million by volume),} \]

\[ C_{bi} = \text{concentration of VOC (as carbon) in the effluent gas flowing through stack (i) entering the control device (parts per million by volume),} \]
\( C_{hk} \) = concentration of VOC (as carbon) in the effluent gas flowing through exhaust stack (k) not entering the control device (parts per million by volume),

\( D_{di} \) = density of each coating (i) as received (kilograms per liter),

\( D_{dij} \) = density of each type VOC dilution solvent (j) added to the coatings, as received (kilograms per liter),

\( D_r \) = density of VOC recovered from an affected facility (kilograms per liter),

\( E \) = VOC destruction or removal efficiency of the control device,

\( F \) = fraction of total VOC which is emitted by an affected facility that enters the control device,

\( G \) = volume weighted average mass of VOC per volume of applied solids (kilograms per liter),

\( L_{di} \) = volume of each coating (i) consumed, as received (liters),

\( L_{di} \) = Volume of each coating (i) consumed by each application method (l), as received (liters),

\( L_{dj} \) = volume of each type VOC dilution solvent (j) added to the coatings, as received (liters),

\( L_r \) = volume of VOC recovered from an affected facility (liters),

\( L_s \) = volume of solids in coatings consumed (liters),

\( L_E \) = the total volume of the EDP system (liters),

\( M_d \) = total mass of VOC in dilution solvent (kilograms),

\( M_0 \) = total mass of VOC in coatings as received (kilograms),

\( M_r \) = total mass of VOC recovered from an affected facility (kilograms),

\( N \) = volume weighted average mass of VOC per volume of applied coating solids after the control device

\[
\frac{\text{kilograms of VOC}}{\text{liter of applied solids}}
\]

\( Q_{bj} \) = volumetric flow rate of the effluent gas flowing through stack (j) leaving the control device (dry standard cubic meters per hour),

\( Q_{bi} \) = volumetric flow rate of the effluent gas flowing through stack (i) entering the control device (dry standard cubic meters per hour),

\( Q_{bfk} \) = volumetric flow rate of the effluent gas flowing through exhaust stack (k) not entering the control device (dry standard cubic meters per hour),

\( T \) = overall transfer efficiency,

\( T_l \) = transfer efficiency for application method (l),

\( V_{di} \) = proportion of solids by volume in each coating (i) as received
\[
\frac{\text{liter solids}}{\text{liter coating}}, \text{ and}
\]

\[
\frac{\text{kilograms VOC}}{\text{kilograms coating}}
\]

\(W_{i} = \text{proportion of VOC by weight in each coating (i), as received}
\]


§60.392 Standards for volatile organic compounds.

On and after the date on which the initial performance test required by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility VOC emissions in excess of:

(a) Prime Coat Operation. (1) For each EDP prime coat operation:

(i) 0.17 kilogram of VOC per liter of applied coating solids when \(R_T\) is 0.16 or greater.

(ii) \(0.17 \times 350 (0.160 - R_T)\) kg of VOC per liter of applied coating solids when \(R_T\) is greater than or equal to 0.040 and less than 0.160.

(iii) When \(R_T\) is less than 0.040, there is no emission limit.

(2) For each nonelectrodeposition prime coat operation: 0.17 kilogram of VOC per liter of applied coating solids.

(b) 1.40 kilograms of VOC per liter of applied coating solids from each guide coat operation.

(c) 1.47 kilograms of VOC per liter of applied coating solids from each topcoat operation.


§60.393 Performance test and compliance provisions.

(a) Section 60.8 (d) and (f) do not apply to the performance test procedures required by this section.

(b) The owner or operator of an affected facility shall conduct an initial performance test in accordance with §60.8(a) and thereafter for each calendar month for each affected facility according to the procedures in this section.

(c) The owner or operator shall use the following procedures for determining the monthly volume weighted average mass of VOC emitted per volume of applied coating solids.

(1) The owner or operator shall use the following procedures for each affected facility which does not use a capture system and a control device to comply with the applicable emission limit specified under §60.392.

(i) Calculate the volume weighted average mass of VOC per volume of applied coating solids for each calendar month for each affected facility. The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or from data determined by an analysis of each coating, as received, by Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coating to determine data used in the calculation of the VOC content of coatings by Method 24 or an equivalent or alternative method. The owner or operator shall determine from company records on a monthly basis the volume of coating consumed, as received, and the mass of solvent used for thinning purposes. The volume
weighted average of the total mass of VOC per volume of coating solids used each calendar month will be
determined by the following procedures.

(A) Calculate the mass of VOC used in each calendar month for each affected facility by the following equation where
“n” is the total number of coatings used and “m” is the total number of VOC solvents used:

\[ M_a + M_d = \sum_{i=1}^{n} L_{ai} D_{ai} W_{ai} + \sum_{j=1}^{m} L_{dj} D_{dj} \]

[iL_{ai}D_{ai}] will be zero if no VOC solvent is added to the coatings, as received].

(B) Calculate the total volume of coating solids used in each calendar month for each affected facility by the following
equation where “n” is the total number of coatings used:

\[ L_s = \sum_{i=1}^{n} L_{ai} V_{ai} \]

(C) Select the appropriate transfer efficiency (T) from the following tables for each surface coating operation:

<table>
<thead>
<tr>
<th>Application method</th>
<th>Transfer efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Atomized Spray (waterborne coating)</td>
<td>0.39</td>
</tr>
<tr>
<td>Air Atomized Spray (solvent-borne coating)</td>
<td>0.50</td>
</tr>
<tr>
<td>Manual Electrostatic Spray</td>
<td>0.75</td>
</tr>
<tr>
<td>Automatic Electrostatic Spray</td>
<td>0.95</td>
</tr>
<tr>
<td>Electrodeposition</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The values in the table above represent an overall system efficiency which includes a total capture of purge. If a
spray system uses line purging after each vehicle and does not collect any of the purge material, the following table
shall be used:

<table>
<thead>
<tr>
<th>Application method</th>
<th>Transfer efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Atomized Spray (waterborne coating)</td>
<td>0.30</td>
</tr>
<tr>
<td>Air Atomized Spray (solvent-borne coating)</td>
<td>0.40</td>
</tr>
<tr>
<td>Manual Electrostatic Spray</td>
<td>0.62</td>
</tr>
<tr>
<td>Automatic Electrostatic Spray</td>
<td>0.75</td>
</tr>
</tbody>
</table>

If the owner or operator can justify to the Administrator's satisfaction that other values for transfer efficiencies are
appropriate, the Administrator will approve their use on a case-by-case basis.

(1) When more than one application method is used on an individual surface coating operation, the owner or
operator shall perform an analysis to determine an average transfer efficiency by the following equation where “n” is
the total number of coatings used and “p” is the total number of application methods:
(D) Calculate the volume weighted average mass of VOC per volume of applied coating solids (G) during each calendar month for each affected facility by the following equation:

\[ G = \frac{M_p + M_d}{L_i T} \]

(E) For each EDP prime coat operation, calculate the turnover ratio (R_T) by the following equation:

\[ R_T = \frac{L_o}{L_i}, \text{ truncated after 3 decimal places.} \]

Then calculate or select the appropriate limit according to §60.392(a).

(ii) If the volume weighted average mass of VOC per volume of applied coating solids (G), calculated on a calendar month basis, is less than or equal to the applicable emission limit specified in §60.392, the affected facility is in compliance. Each monthly calculation is a performance test for the purpose of this subpart.

(2) The owner or operator shall use the following procedures for each affected facility which uses a capture system and a control device that destroys VOC (e.g., incinerator) to comply with the applicable emission limit specified under §60.392.

(i) Calculate the volume weighted average mass of VOC per volume of applied coating solids (G) during each calendar month for each affected facility as described under §60.393(c)(1)(i).

(ii) Calculate the volume weighted average mass of VOC per volume of applied solids emitted after the control device, by the following equation: \( N = G[1-FE] \)

(A) Determine the fraction of total VOC which is emitted by an affected facility that enters the control device by using the following equation where “n” is the total number of stacks entering the control device and “p” is the total number of stacks not connected to the control device:

\[ \frac{n}{n+p} \]

If the owner can justify to the Administrator's satisfaction that another method will give comparable results, the Administrator will approve its use on a case-by-case basis.

(1) In subsequent months, the owner or operator shall use the most recently determined capture fraction for the performance test.

(B) Determines the destruction efficiency of the control device using values of the volumetric flow rate of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation where “n” is the total number of stacks entering the control device and “m” is the total number of stacks leaving the control device:
(1) In subsequent months, the owner or operator shall use the most recently determined VOC destruction efficiency for the performance test.

(C) If an emission control device controls the emissions from more than one affected facility, the owner or operator shall measure the VOC concentration ($C_{bi}$) in the effluent gas entering the control device (in parts per million by volume) and the volumetric flow rate ($Q_{bi}$) of the effluent gas (in dry standard cubic meters per hour) entering the device through each stack. The destruction or removal efficiency determined using these data shall be applied to each affected facility served by the control device.

(iii) If the volume weighted average mass of VOC per volume of applied solids emitted after the control device ($N$) calculated on a calendar month basis is less than or equal to the applicable emission limit specified in §60.392, the affected facility is in compliance. Each monthly calculation is a performance test for the purposes of this subpart.

(3) The owner or operator shall use the following procedures for each affected facility which uses a capture system and a control device that recovers the VOC (e.g., carbon adsorber) to comply with the applicable emission limit specified under §60.392.

(i) Calculate the mass of VOC ($M_0 + M_d$) used during each calendar month for each affected facility as described under §60.393(c)(1)(i).

(ii) Calculate the total volume of coating solids ($L_s$) used in each calendar month for each affected facility as described under §60.393(c)(1)(i).

(iii) Calculate the mass of VOC recovered ($M_r$) each calendar month for each affected facility by the following equation: $M_r = L_s \cdot D_r$

(iv) Calculate the volume weighted average mass of VOC per volume of applied coating solids emitted after the control device during a calendar month by the following equation:

$$N = \frac{M_0 + M_d - M_r}{L_s \cdot T}$$

(v) If the volume weighted average mass of VOC per volume of applied solids emitted after the control device ($N$) calculated on a calendar month basis is less than or equal to the applicable emission limit specified in §60.392, the affected facility is in compliance. Each monthly calculation is a performance test for the purposes of this subpart.


§60.394 Monitoring of emissions and operations.

The owner or operator of an affected facility which uses an incinerator to comply with the emission limits specified under §60.392 shall install, calibrate, maintain, and operate temperature measurement devices as prescribed below:

(a) Where thermal incineration is used, a temperature measurement device shall be installed in the firebox. Where catalytic incineration is used, a temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed.

(b) Each temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±5 percent of the temperature being measured expressed in degrees Celsius or ±2.5 °C.
(c) Each temperature measurement device shall be equipped with a recording device so that a permanent record is produced.

§60.395 Reporting and recordkeeping requirements.

(a) Each owner or operator of an affected facility shall include the data outlined in paragraphs (a)(1) and (2) in the initial compliance report required by §60.8.

(1) The owner or operator shall report the volume weighted average mass of VOC per volume of applied coating solids for each affected facility.

(2) Where compliance is achieved through the use of incineration, the owner or operator shall include the following additional data in the control device initial performance test required by §60.8(a) or subsequent performance tests at which destruction efficiency is determined: the combustion temperature (or the gas temperature upstream and downstream of the catalyst bed), the total mass of VOC per volume of applied coating solids before and after the incinerator, capture efficiency, the destruction efficiency of the incinerator used to attain compliance with the applicable emission limit specified in §60.392 and a description of the method used to establish the fraction of VOC captured and sent to the control device.

(b) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under §60.392. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually. Where compliance is achieved through the use of a capture system and control device, the volume-weighted average after the control device should be reported.

(c) Where compliance with §60.392 is achieved through the use of incineration, the owner or operator shall continuously record the incinerator combustion temperature during coating operations for thermal incineration or the gas temperature upstream and downstream of the incinerator catalyst bed during coating operations for catalytic incineration. The owner or operator shall submit a written report at the frequency specified in §60.7(c) and as defined below.

(1) For thermal incinerators, every three-hour period shall be reported during which the average temperature measured is more than 28 °C less than the average temperature during the most recent control device performance test at which the destruction efficiency was determined as specified under §60.393.

(2) For catalytic incinerators, every three-hour period shall be reported during which the average temperature immediately before the catalyst bed, when the coating system is operational, is more than 28 °C less than the average temperature immediately before the catalyst bed during the most recent control device performance test at which destruction efficiency was determined as specified under §60.393. In addition, every three-hour period shall be reported each quarter during which the average temperature difference across the catalyst bed when the coating system is operational is less than 80 percent of the average temperature difference of the device during the most recent control device performance test at which destruction efficiency was determined as specified under §60.393.

(3) For thermal and catalytic incinerators, if no such periods occur, the owner or operator shall submit a negative report.

(d) The owner or operator shall notify the Administrator 30 days in advance of any test by Method 25.


§60.396 Reference methods and procedures.

(a) The reference methods in appendix A to this part, except as provided in §60.8 shall be used to conduct performance tests.
(1) Method 24 or an equivalent or alternative method approved by the Administrator shall be used for the determination of the data used in the calculation of the VOC content of the coatings used for each affected facility. Manufacturers’ formulation data is approved by the Administrator as an alternative method to Method 24. In the event of dispute, Method 24 shall be the referee method.

(2) Method 25 or an equivalent or alternative method approved by the Administrator shall be used for the determination of the VOC concentration in the effluent gas entering and leaving the emission control device for each stack equipped with an emission control device and in the effluent gas leaving each stack not equipped with a control device.

(3) The following methods shall be used to determine the volumetric flow rate in the effluent gas in a stack:

(i) Method 1 for sample and velocity traverses,

(ii) Method 2 for velocity and volumetric flow rate,

(iii) Method 3 for gas analysis, and

(iv) Method 4 for stack gas moisture.

(b) For Method 24, the coating sample must be a 1-liter sample taken in a 1-liter container.

(c) For Method 25, the sampling time for each of three runs must be at least one hour. The minimum sample volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator. The Administrator will approve the sampling of representative stacks on a case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that the testing of representative stacks would yield results comparable to those that would be obtained by testing all stacks.


§60.397 Modifications.

The following physical or operational changes are not, by themselves, considered modifications of existing facilities:

(a) Changes as a result of model year changeovers or switches to larger cars.

(b) Changes in the application of the coatings to increase coating film thickness.

§60.398 Innovative technology waivers.

(a) General Motors Corporation, Wentzville, Missouri, automobile assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at General Motors Corporation automobile assembly plant located in Wentzville, Missouri, shall comply with the following conditions:

(i) The General Motors Corporation shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Wentzville assembly plant.

(ii) Commencing on February 4, 1983, and continuing to December 31, 1986, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980) is demonstrated to the Administrator’s satisfaction the General Motors Corporation shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Wentzville, Missouri, assembly plant, to either:

(A) 1.9 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (a)(1)(ii) of this section, and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (Dec. 24, 1980).

(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (a)(1)(ii)(A) of this section.

(v) A technology development report shall be sent to EPA Region VII, 324 East 11th Street, Kansas City, MO 64106, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. The technology development report shall summarize the base coat/clear coat development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of 40 CFR 60.392(c) (Dec. 24, 1980) based on the most current information.

(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for General Motors Corporation to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the General Motors Corporation to enforcement under section 113 (b) and (c), 42 U.S.C. 7412 (b) and (c), and section 120, 42 U.S.C. 7420, of the Act as well as possible citizen enforcement under section 304 of the Act, 42 U.S.C. 7604.

(b) General Motors Corporation, Detroit, Michigan, Automobile Assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at General Motors Corporation's automobile assembly plant located in Detroit, MI, shall comply with the following conditions:

(i) The General Motors Corporation shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Detroit assembly plant.

(ii) Commencing on February 4, 1983, and continuing to December 31, 1986, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980), is demonstrated to the Administrator's satisfaction, the General Motors Corporation shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Detroit, MI, assembly plant, to either:

(A) 1.9 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or

(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (b)(ii) of this section, and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (December 24, 1980).

(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (b)(1)(ii)(A) of this section.

(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. The technology development report shall summarize the base coat/clear coat development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of 40 CFR 60.392(c) (Dec. 24, 1980) based on the most current information.

(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for General Motors Corporation to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the General Motors Corporation to enforcement under section 113 (b) and (c), 42 U.S.C. 7412 (b) and (c), and section 120, 42 U.S.C. 7420, of the Act as well as possible citizen enforcement under section 304 of the Act, 42 U.S.C. 7604.
(c) General Motors Corporation, Orion Township, MI, automobile assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at General Motors Corporation automobile assembly plant located in Orion Township, MI, shall comply with the following conditions:

(i) The General Motors Corporation shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Orion Township assembly plant.

(ii) Commencing on February 4, 1983, and continuing to December 31, 1986, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980) is demonstrated to the Administrator's satisfaction, the General Motors Corporation shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Orion Township, MI, assembly plant, to either:

(A) 1.9 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or

(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (c)(1)(ii) of this section and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (Dec. 24, 1980).

(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (c)(1)(ii)(A) of this section.

(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. The technology development report shall summarize the base coat/clear coat development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of 40 CFR 60.392(c) (December 24, 1980) based on the most current information.

(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for General Motors Corporation to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the General Motors Corporation to enforcement under section 113 (b) and (c), 42 U.S.C. 7412 (b) and (c), and section 120, 42 U.S.C. 7420, of the Act as well as possible citizen enforcement under section 304 of the Act, 42 U.S.C. 7604.

d) Honda of America Manufacturing, Incorporated (Honda), Marysville, Ohio, automobile assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Honda's automobile assembly plant located in Marysville, OH, shall comply with the following conditions:

(i) Honda shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Marysville assembly plant.

(ii) Commencing on February 4, 1983, and continuing for 4 years or to December 31, 1986, whichever is sooner, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980) is demonstrated to the Administrator's satisfaction, Honda shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at Marysville, OH, assembly plant, to either:

(A) 3.1 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or

(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (d)(1)(ii) of this section and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (December 24, 1980).
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (d)(1)(ii)(A) of this section.

(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. The technology development report shall summarize the base coat/clear coat development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of 40 CFR 60.392(c) (Dec. 24, 1980) based on the most current information.

(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for Honda to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject Honda to enforcement under section 113(b) and (c), 42 U.S.C. 7412(b) and (c), and section 120, 42 U.S.C. 7420, of the Act as well as possible citizen enforcement under section 304 of the Act, 42 U.S.C. 7604.

(e) Nissan Motor Manufacturing Corporation, U.S.A. (Nissan), Smyrna, TN, light-duty truck assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Nissan's light-duty truck assembly plant located in Smyrna, Tennessee, shall comply with the following conditions:

(i) Nissan shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Smyrna assembly plant.

(ii) Commencing on February 4, 1983, and continuing for 4 years or to December 31, 1986, whichever is sooner, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980), is demonstrated to the Administrator's satisfaction, Nissan shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Smyrna, TN, assembly plant, to either:

(A) 2.3 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or

(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (e)(1)(ii) of this section and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (Dec. 24, 1980).

Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (e)(1)(ii)(A) of this section.

(f) Chrysler Corporation, Sterling Heights, MI, automobile assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Chrysler Corporation's automobile assembly plant located in Sterling Heights, MI, shall comply with the following conditions:

(i) The Chrysler Corporation shall obtain the necessary permits as required under Parts C and D of the Clean Air Act, as amended August 1977, to operate the Sterling Heights assembly plant.

(ii) Commencing on September 9, 1985, and continuing to December 31, 1986, or until the basecoat/clearcoat (BC/CC) topcoat system that can achieve the standard specified under §60.392(c) of this subpart is demonstrated to the Administrator's satisfaction, whichever is sooner, the Chrysler Corporation shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Sterling Heights, MI assembly plant, to either:

(A) 1.7 kilograms of VOC per liter of applied coating solids from BC/CC topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or

(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (f)(1)(iii) and continuing thereafter, emissions of VOC's from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified under §60.392(c) of this subpart.

(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for BC/CC coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits specified under paragraph (f)(1)(ii)(A) of this section.

(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. A copy of this report shall be sent to Director, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, MD-13, Research Triangle Park, NC 27711. The technology development report shall summarize the BC/CC development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of §60.392(c) of this subpart, based on the most current information.

(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for the Chrysler Corporation to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the Chrysler Corporation to enforcement under sections 113 (b) and (c) of the Act (42 U.S.C. 7412 (b) and (c)) and under section 120 of the Act (42 U.S.C. 7420), as well as possible citizen enforcement under section 304 of the Act (42 U.S.C. 7604).

(3) This waiver shall not be construed to constrain the State of Michigan from imposing upon the Chrysler Corporation any emission reduction requirement at Chrysler’s Sterling Heights automobile assembly plant necessary for the maintenance of reasonable further progress or the attainment of the national ambient air quality standard for ozone or the maintenance of the national ambient air quality standard for ozone. Furthermore, this waiver shall not be construed as granting any exemptions from the applicability, enforcement, or other provisions of any other standards that apply or may apply to topcoat operations or any other operations at this automobile assembly plant.

(g) Ford Motor Company, Hapeville, GA, automotive assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Ford Motor Company’s automobile assembly plant located in Hapeville, GA, shall comply with the following conditions:

(i) The Ford Motor Company shall obtain the necessary permits as required under parts C and D of the Clean Air Act, as amended August 1977, to operate the Hapeville assembly plant.

(ii) Commencing on September 9, 1985, and continuing to December 31, 1986, or until the basecoat/clearcoat (BC/CC) topcoat system that can achieve the standard specified under §60.392(c) of this subpart is demonstrated to the Administrator's satisfaction, whichever is sooner, the Ford Motor Company shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Hapeville, GA, assembly plant, to either:

(A) 2.6 kilograms of VOC per liter of applied coating solids from BC/CC topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or

(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (g)(1)(ii) and continuing thereafter, emissions of VOC's from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified under §60.392(c) of this subpart.

(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for BC/CC coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits specified under paragraph (g)(1)(ii)(A) of this section.

(v) A technology development report shall be sent to EPA Region IV, 345 Courtland Street, NE., Atlanta, GA 30365, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. A copy of this report shall be sent to Director, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, MD-13, Research Triangle Park, NC 27711. The technology development report shall summarize
the BC/CC development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of §60.392(c) of this subpart, based on the most current information.

(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for the Ford Motor Company to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the Ford Motor Company to enforcement under section 113 (b) and (c) and the Act (42 U.S.C. 7412 (b) and (c)) and under section 120 of the Act (42 U.S.C. 7420), as well as possible citizen enforcement under section 304 of the Act (42 U.S.C. 7604).

(3) This waiver shall not be construed to constrain the State of Georgia from imposing upon the Ford Motor Corporation any emission reduction requirement at Ford's Hapeville automobile assembly plant necessary for the maintenance of reasonable further progress or the attainment of the national ambient air quality standard for ozone or the maintenance of the national ambient air quality standard for ozone. Furthermore, this waiver shall not be construed as granting any exemptions from the applicability, enforceability, or other provisions of any other standards that apply or may apply to topcoat operations or any other operations at this automobile assembly plant.

(h) Ford Motor Company, St. Paul, MN, light-duty truck assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Ford Motor Company's automobile assembly plant located in St. Paul, MN, shall comply with the following conditions:

(i) The Ford Motor Company shall obtain the necessary permits as required under parts C and D of the Clean Air Act, as amended August 1977, to operate the St. Paul assembly plant.

(ii) Commencing on September 9, 1985, and continuing to December 31, 1986, or until the basecoat/clearcoat (BC/CC) topcoat system that can achieve the standard specified under §60.392(c) of this subpart, is demonstrated to the Administrator's satisfaction, whichever is sooner, the Ford Motor Company shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the St. Paul, MN, assembly plant, to either:

(A) 2.0 kilograms of VOC per liter of applied coating solids from BC/CC topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or

(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (h)(1)(ii) and continuing thereafter, emissions of VOC's from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified under §60.392(c) of this subpart.

(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for BC/CC coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits specified under paragraph (h)(1)(ii)(A) of this section.

(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. A copy of this report shall be sent to Director, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, MD-13, Research Triangle Park, NC 27711. The technology development report shall summarize the BC/CC development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of §60.392(c) of this subpart, based on the most current information.

(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for the Ford Motor Company to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the Ford Motor Company to enforcement under section 113 (b) and (c) of the Act (42 U.S.C. 7412 (b) and (c)) and under section 120 of the Act (42 U.S.C. 7420), as well as possible citizen enforcement under section 304 of the Act (42 U.S.C. 7604).

(3) This waiver shall not be construed to constrain the State of Minnesota from imposing upon the Ford Motor Corporation any emission reduction requirements at Ford's St. Paul light-duty truck assembly plant necessary for the
maintenance of reasonable further progress or the attainment of the national ambient air quality standard for ozone or the maintenance of the national ambient air quality standard for ozone. Furthermore, this waiver shall not be construed as granting any exemptions from the applicability, enforcement, or other provisions of any other standards that apply or may apply to topcoat operations or any other operations at this light-duty truck assembly plant.

(i) Ford Motor Company, Hazelwood, MO, passenger van assembly plant. (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Ford Motor Company's passenger van assembly plant located in Hazelwood, MO, shall comply with the following conditions:

(i) The Ford Motor Company shall obtain the necessary permits as required under parts C and D of the Clean Air Act, as amended August 1977, to operate the Hazelwood assembly plant.

(ii) Commencing on September 9, 1985, and continuing to December 31, 1986, or until the basecoat/clearcoat (BC/CC) topcoat system that can achieve the standard specified under §60.392(c) of this subpart is demonstrated to the Administrator's satisfaction, whichever is sooner, the Ford Motor Company shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Hazelwood, MO, assembly plant, to either:

(A) 2.5 kilograms of VOC per liter of applied coating solids from BC/CC topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or

(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (i)(1)(ii) and continuing thereafter, emissions of VOC's from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified under §60.392(c) of this subpart.

(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for BC/CC coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits specified under paragraph (i)(1)(ii)(A) of this section.

(v) A technology development report shall be sent to EPA Region VII, 726 Minnesota Avenue, Kansas City, KS 61101, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. A copy of this report shall be sent to Director, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, MD-13, Research Triangle Park, NC 27711. The technology development report shall summarize the BC/CC development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of §60.392(c) of this subpart, based on the most current information.

(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for the Ford Motor Company to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the Ford Motor Company to enforcement under section 113 (b) and (c) of the Act (42 U.S.C. 7412 (b) and (c)) and under section 120 of the Act (42 U.S.C. 7420), as well as possible citizen enforcement under section 304 of the Act (42 U.S.C. 7604).

(3) This waiver shall not be construed to constrain the State of Missouri from imposing upon the Ford Motor Corporation any emission reduction at Ford's Hazelwood passenger van assembly plant necessary for the maintenance of reasonable further progress or the attainment of the national ambient air quality standards for ozone or the maintenance of the national ambient air quality standard for ozone. Furthermore, this waiver shall not be construed as granting any exemptions from the applicability, enforcement, or other provisions of any other standards that apply or may apply to topcoat operations or any other operations at this passenger van assembly plant.

[48 FR 5454, Feb. 4, 1983, as amended at 50 FR 36834, Sept. 9, 1985]
Attachment C

Part 70 Operating Permit No: T003-41020-00036

[Downloaded from the eCFR on September 6, 2016]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart III—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.
(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

Emission Standards for Manufacturers

§60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.106, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.106, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and
(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Remote areas of Alaska; and

(2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

(h) Stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with auxiliary emission control devices (AECDS) as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR 89.112 while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and


(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.
(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Remote areas of Alaska; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011; 81 FR 44219, July 7, 2016]
§60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

Emission Standards for Owners and Operators

§60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NOx in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hour (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) 45 \cdot n^{-0.2} g/KW-hr (34 \cdot n^{-0.2} g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where \( n \) is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NOx in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) 44 \cdot n^{-0.23} g/KW-hr (33 \cdot n^{-0.23} g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where \( n \) (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of NOx in the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) 9.0 \cdot n^{-0.20} g/KW-hr (6.7 \cdot n^{-0.20} g/HP-hr) where \( n \) (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.
(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

(f) Owners and operators of stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with AECDs as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR 89.112 while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011; 81 FR 44219, July 7, 2016]

§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NOx in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) 45 · n^{-0.2} g/KW-hr (34 · n^{-0.2} g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NOx in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) 44 · n^{-0.23} g/KW-hr (33 · n^{-0.23} g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

Fuel Requirements for Owners and Operators

§60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.


Other Requirements for Owners and Operators

§60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]
Compliance Requirements

§60.4210   What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.
(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner’s manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §60.4201 or §60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

(j) Stationary CI ICE manufacturers may equip their stationary CI internal combustion engines certified to the emission standards in 40 CFR part 1039 with AECDs for qualified emergency situations according to the requirements of 40 CFR 1039.665. Manufacturers of stationary CI ICE equipped with AECDs as allowed by 40 CFR 1039.665 must meet all of the requirements in 40 CFR 1039.665 that apply to manufacturers. Manufacturers must document that the engine complies with the Tier 1 standard in 40 CFR 89.112 when the AECD is activated. Manufacturers must provide any relevant testing, engineering analysis, or other information in sufficient detail to support such statement when applying for certification (including amending an existing certificate) of an engine equipped with an AECD as allowed by 40 CFR 1039.665.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 81 FR 44219, July 7, 2016]
§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;
(ii) A discussion of the relationship between these parameters and NOX and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NOX and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent
performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of stationary CI ICE equipped with AECDs for qualified emergency situations as allowed by 40 CFR 1039.665.


Testing Requirements for Owners and Operators

§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

\[
\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad \text{(Eq. 1)}
\]

Where:

\[
\text{STD} = \text{The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.}
\]

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

\[
\text{STD} = \text{The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).}
\]

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.
(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (Eq. \ 2)$$

Where:

$C_i =$ concentration of NOX or PM at the control device inlet,

$C_o =$ concentration of NOX or PM at the control device outlet, and

$R =$ percent reduction of NOX or PM emissions.

(2) You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen ($O_2$) using Equation 3 of this section, or an equivalent percent carbon dioxide ($CO_2$) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \times \frac{5.9}{20.9 - \% \ O_2} \quad (Eq. \ 3)$$

Where:

$C_{adj} =$ Calculated NOX or PM concentration adjusted to 15 percent $O_2$.

$C_d =$ Measured concentration of NOX or PM, uncorrected.

$5.9 =$ 20.9 percent $O_2$−15 percent $O_2$, the defined $O_2$ correction value, percent.
%O₂ = Measured O₂ concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O₂ and CO₂ concentration is measured in lieu of O₂ concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific F₀ value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

\[ F₀ = \frac{0.209 F_d}{F_c} \]  (Eq. 4)

Where:

F₀ = Fuel factor based on the ratio of O₂ volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O₂, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

\[ X_{CO₂} = \frac{5.9}{F₀} \]  (Eq. 5)

Where:

X_{CO₂} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂−15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the NOₓ and PM gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

\[ C_{adj} = C_d \frac{X_{CO₂}}{%CO₂} \]  (Eq. 6)

Where:

C_{adj} = Calculated NOₓ or PM concentration adjusted to 15 percent O₂.

C_d = Measured concentration of NOₓ or PM, uncorrected.

%CO₂ = Measured CO₂ concentration, dry basis, percent.

(e) To determine compliance with the NOₓ mass per unit output emission limitation, convert the concentration of NOₓ in the engine exhaust using Equation 7 of this section:
Where:

\[ ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \]  \hspace{1cm} (Eq. 7)

Where:

ER = Emission rate in grams per KW-hour.

\( C_d \) = Measured NO\(_X\) concentration in ppm.

\[ 1.912 \times 10^{-3} = \text{Conversion constant for ppm NO}\_X\text{ to grams per standard cubic meter at 25 degrees Celsius.} \]

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

\[ ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \]  \hspace{1cm} (Eq. 8)

Where:

ER = Emission rate in grams per KW-hour.

\( C_{adj} \) = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

Notification, Reports, and Records for Owners and Operators

§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;
(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA’s Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

(e) Owners or operators of stationary CI ICE equipped with AECDs pursuant to the requirements of 40 CFR 1039.665 must report the use of AECDs as required by 40 CFR 1039.665(e).


**Special Requirements**

§60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO\textsubscript{X} in the stationary CI internal combustion engine exhaust to the following:

   (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

   (ii) 45 \cdot n^{-0.2} g/KW-hr (34 \cdot n^{-0.2} g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where \( n \) is maximum engine speed; and

   (iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO\textsubscript{X} in the stationary CI internal combustion engine exhaust to the following:

   (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

   (ii) 44 \cdot n^{-0.23} g/KW-hr (33 \cdot n^{-0.23} g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where \( n \) is maximum engine speed; and

   (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]
§60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in §§60.4201(f) and 60.4202(g).

(c) Manufacturers, owners and operators of stationary CI ICE that are located in remote areas of Alaska may choose to meet the applicable emission standards for emergency engines in §§60.4202 and 60.4205, and not those for non-emergency engines in §§60.4201 and 60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §§60.4201 and 60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in remote areas of Alaska.

(e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in remote areas of Alaska from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011, as amended at 81 FR 44219, July 7, 2016]

§60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

General Provisions

§60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.
Definitions

§60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

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.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied
to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4211(f)(2)(ii) or (iii) and §60.4211(f)(3)(i).

*Engine manufacturer* means the manufacturer of the engine. See the definition of “manufacturer” in this section.

*Fire pump engine* means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

*Freshly manufactured engine* means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

*Installed* means the engine is placed and secured at the location where it is intended to be operated.

*Manufacturer* has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

*Maximum engine power* means maximum engine power as defined in 40 CFR 1039.801.

*Model year* means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

*Other internal combustion engine* means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

*Reciprocating internal combustion engine* means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

*Remote areas of Alaska* means areas of Alaska that meet either paragraph (1) or (2) of this definition.

(1) Areas of Alaska that are not accessible by the Federal Aid Highway System (FAHS).

(2) Areas of Alaska that meet all of the following criteria:

(i) The only connection to the FAHS is through the Alaska Marine Highway System, or the stationary CI ICE 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 CI ICE on an annual basis is used for residential purposes.
(iii) The generating capacity of the source is less than 12 megawatts, or the stationary CI ICE is used exclusively for backup power for renewable energy.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.


Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

<table>
<thead>
<tr>
<th>Maximum engine power</th>
<th>Emission standards for stationary pre-2007 model year engines with a displacement of &lt;10 liters per cylinder and 2007-2010 model year engines &gt;2,237 KW (3,000 HP) and with a displacement of &lt;10 liters per cylinder in g/KW-hr (g/HP-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NMHC + NOX</td>
</tr>
<tr>
<td>KW&lt;8 (HP&lt;11)</td>
<td>10.5 (7.8)</td>
</tr>
<tr>
<td>8≤KW&lt;19 (11≤HP&lt;25)</td>
<td>9.5 (7.1)</td>
</tr>
<tr>
<td>19≤KW&lt;37 (25≤HP&lt;50)</td>
<td>9.5 (7.1)</td>
</tr>
<tr>
<td>37≤KW&lt;56 (50≤HP&lt;75)</td>
<td></td>
</tr>
<tr>
<td>56≤KW&lt;75 (75≤HP&lt;100)</td>
<td></td>
</tr>
<tr>
<td>75≤KW&lt;130 (100≤HP&lt;175)</td>
<td></td>
</tr>
<tr>
<td>130≤KW&lt;225 (175≤HP&lt;300)</td>
<td></td>
</tr>
<tr>
<td>225≤KW&lt;450 (300≤HP&lt;600)</td>
<td></td>
</tr>
</tbody>
</table>
### Emission Standards for Stationary Pre-2007 Model Year Engines

<table>
<thead>
<tr>
<th>Maximum engine power</th>
<th>Emission standards for stationary pre-2007 model year engines with a displacement of &lt;10 liters per cylinder and 2007-2010 model year engines &gt;2,237 KW (3,000 HP) and with a displacement of &lt;10 liters per cylinder in g/KW-hr (g/HP-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMHC + NO&lt;sub&gt;X&lt;/sub&gt;</td>
<td>HC</td>
</tr>
<tr>
<td>450≤KW≤560 (600≤HP≤750)</td>
<td>1.3 (1.0)</td>
</tr>
<tr>
<td>KW&gt;560 (HP&gt;750)</td>
<td>1.3 (1.0)</td>
</tr>
</tbody>
</table>

#### Table 2 to Subpart III of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

As stated in §60.4202(a)(1), you must comply with the following emission standards:

<table>
<thead>
<tr>
<th>Engine power</th>
<th>Emission standards for 2008 model year and later emergency stationary CI ICE &lt;37 KW (50 HP) with a displacement of &lt;10 liters per cylinder in g/KW-hr (g/HP-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model year(s)</td>
<td>NO&lt;sub&gt;X&lt;/sub&gt; + NMHC</td>
</tr>
<tr>
<td>KW&lt;8 (HP&lt;11)</td>
<td>2008 +</td>
</tr>
<tr>
<td>8≤KW&lt;19 (11≤HP&lt;25)</td>
<td>2008 +</td>
</tr>
<tr>
<td>19≤KW&lt;37 (25≤HP&lt;50)</td>
<td>2008 +</td>
</tr>
</tbody>
</table>

#### Table 3 to Subpart III of Part 60—Certification Requirements for Stationary Fire Pump Engines

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

<table>
<thead>
<tr>
<th>Engine power</th>
<th>Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>KW&lt;75 (HP&lt;100)</td>
<td>2011</td>
</tr>
<tr>
<td>75≤KW&lt;130 (100≤HP&lt;175)</td>
<td>2010</td>
</tr>
<tr>
<td>130≤KW&lt;560 (175≤HP&lt;750)</td>
<td>2009</td>
</tr>
<tr>
<td>KW&gt;560 (HP&gt;750)</td>
<td>2008</td>
</tr>
</tbody>
</table>

<sup>1</sup>Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 KW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]
Table 4 to Subpart III of Part 60—Emission Standards for Stationary Fire Pump Engines

As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines:

<table>
<thead>
<tr>
<th>Maximum engine power</th>
<th>Model year(s)</th>
<th>NMHC + NOx</th>
<th>CO</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>KW&lt;8 (HP&lt;11)</td>
<td>2010 and earlier</td>
<td>10.5 (7.8)</td>
<td>8.0 (6.0)</td>
<td>1.0 (0.75)</td>
</tr>
<tr>
<td></td>
<td>2011 +</td>
<td>7.5 (5.6)</td>
<td></td>
<td>0.40 (0.30)</td>
</tr>
<tr>
<td>8≤KW&lt;19 (11≤HP&lt;25)</td>
<td>2010 and earlier</td>
<td>9.5 (7.1)</td>
<td>6.6 (4.9)</td>
<td>0.80 (0.60)</td>
</tr>
<tr>
<td></td>
<td>2011 +</td>
<td>7.5 (5.6)</td>
<td></td>
<td>0.40 (0.30)</td>
</tr>
<tr>
<td>19≤KW&lt;37 (25≤HP&lt;50)</td>
<td>2010 and earlier</td>
<td>9.5 (7.1)</td>
<td>5.5 (4.1)</td>
<td>0.80 (0.60)</td>
</tr>
<tr>
<td></td>
<td>2011 +</td>
<td>7.5 (5.6)</td>
<td></td>
<td>0.30 (0.22)</td>
</tr>
<tr>
<td>37≤KW&lt;56 (50≤HP&lt;75)</td>
<td>2010 and earlier</td>
<td>10.5 (7.8)</td>
<td>5.0 (3.7)</td>
<td>0.80 (0.60)</td>
</tr>
<tr>
<td></td>
<td>2011 +(^1)</td>
<td>4.7 (3.5)</td>
<td></td>
<td>0.40 (0.30)</td>
</tr>
<tr>
<td>56≤KW&lt;75 (75≤HP&lt;100)</td>
<td>2010 and earlier</td>
<td>10.5 (7.8)</td>
<td>5.0 (3.7)</td>
<td>0.80 (0.60)</td>
</tr>
<tr>
<td></td>
<td>2011 +(^1)</td>
<td>4.7 (3.5)</td>
<td></td>
<td>0.40 (0.30)</td>
</tr>
<tr>
<td>75≤KW&lt;130 (100≤HP&lt;175)</td>
<td>2009 and earlier</td>
<td>10.5 (7.8)</td>
<td>5.0 (3.7)</td>
<td>0.80 (0.60)</td>
</tr>
<tr>
<td></td>
<td>2010 +(^2)</td>
<td>4.0 (3.0)</td>
<td></td>
<td>0.30 (0.22)</td>
</tr>
<tr>
<td>130≤KW&lt;225 (175≤HP&lt;300)</td>
<td>2008 and earlier</td>
<td>10.5 (7.8)</td>
<td>3.5 (2.6)</td>
<td>0.54 (0.40)</td>
</tr>
<tr>
<td></td>
<td>2009 +(^3)</td>
<td>4.0 (3.0)</td>
<td></td>
<td>0.20 (0.15)</td>
</tr>
<tr>
<td>225≤KW&lt;450 (300≤HP&lt;600)</td>
<td>2008 and earlier</td>
<td>10.5 (7.8)</td>
<td>3.5 (2.6)</td>
<td>0.54 (0.40)</td>
</tr>
<tr>
<td></td>
<td>2009 +(^3)</td>
<td>4.0 (3.0)</td>
<td></td>
<td>0.20 (0.15)</td>
</tr>
<tr>
<td>450≤KW≤560 (600≤HP≤750)</td>
<td>2008 and earlier</td>
<td>10.5 (7.8)</td>
<td>3.5 (2.6)</td>
<td>0.54 (0.40)</td>
</tr>
<tr>
<td></td>
<td>2009 +</td>
<td>4.0 (3.0)</td>
<td></td>
<td>0.20 (0.15)</td>
</tr>
<tr>
<td>KW&gt;560 (HP&gt;750)</td>
<td>2007 and earlier</td>
<td>10.5 (7.8)</td>
<td>3.5 (2.6)</td>
<td>0.54 (0.40)</td>
</tr>
<tr>
<td></td>
<td>2008 +</td>
<td>6.4 (4.8)</td>
<td></td>
<td>0.20 (0.15)</td>
</tr>
</tbody>
</table>

\(^1\)For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

\(^2\)For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

\(^3\)In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.
Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

<table>
<thead>
<tr>
<th>Engine power</th>
<th>Starting model year</th>
</tr>
</thead>
<tbody>
<tr>
<td>19≤KW&lt;56 (25≤HP&lt;75)</td>
<td>2013</td>
</tr>
<tr>
<td>56≤KW&lt;130 (75≤HP&lt;175)</td>
<td>2012</td>
</tr>
<tr>
<td>KW≥130 (HP≥175)</td>
<td>2011</td>
</tr>
</tbody>
</table>

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

<table>
<thead>
<tr>
<th>Mode No.</th>
<th>Engine speed¹</th>
<th>Torque (percent)²</th>
<th>Weighting factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rated</td>
<td>100</td>
<td>0.30</td>
</tr>
<tr>
<td>2</td>
<td>Rated</td>
<td>75</td>
<td>0.50</td>
</tr>
<tr>
<td>3</td>
<td>Rated</td>
<td>50</td>
<td>0.20</td>
</tr>
</tbody>
</table>

¹Engine speed: ±2 percent of point.

²Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.
Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:

<table>
<thead>
<tr>
<th>Each</th>
<th>Complying with the requirement to</th>
<th>You must</th>
<th>Using</th>
<th>According to the following requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder</td>
<td>a. Reduce NOx emissions by 90 percent or more;</td>
<td>i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device;</td>
<td>(a) For NOx, O2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts &gt;6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (&quot;3-point long line&quot;). If the duct is &gt;12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(b) Measurements to determine O2 concentration must be made at the same time as the measurements for NOx concentration.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii. Measure O2 at the inlet and outlet of the control device;</td>
<td>(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)</td>
<td>(c) Measurements to determine moisture content must be made at the same time as the measurements for NOx concentration.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iii. If necessary, measure moisture content at the inlet and outlet of the control device; and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>iv. Measure NOx at the inlet and outlet of the control device.</td>
<td>(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)</td>
<td>(d) NOx concentration must be at 15 percent O2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.</td>
<td></td>
</tr>
</tbody>
</table>
Each Complying with the requirement to You must Using According to the following requirements

| b. Limit the concentration of NOx in the stationary CI internal combustion engine exhaust. | i. Select the sampling port location and number/location of traverse points at the exhaust of the stationary internal combustion engine; | (a) For NOx, O2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4. |
| i. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; | (1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 | (b) Measurements to determine O2 concentration must be made at the same time as the measurement for NOx concentration. |
| iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and | (2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17) | (c) Measurements to determine moisture content must be made at the same time as the measurement for NOx concentration. |
| iv. Measure NOx at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device. | (3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17) | (d) NOx concentration must be at 15 percent O2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
| c. Reduce PM emissions by 60 percent or more | i. Select the sampling port location and the number of traverse points; | (1) Method 1 or 1A of 40 CFR part 60, appendix A-1 | (a) Sampling sites must be located at the inlet and outlet of the control device. |
Each Complying with the requirement to You must Using According to the following requirements

ii. Measure $O_2$ at the inlet and outlet of the control device; (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 (b) Measurements to determine $O_2$ concentration must be made at the same time as the measurements for PM concentration.

iii. If necessary, measure moisture content at the inlet and outlet of the control device; and (3) Method 4 of 40 CFR part 60, appendix A-3 (c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.

iv. Measure PM at the inlet and outlet of the control device. (4) Method 5 of 40 CFR part 60, appendix A-3 (d) PM concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust

i. Select the sampling port location and the number of traverse points; (1) Method 1 or 1A of 40 CFR part 60, appendix A-1 (a) If using a control device, the sampling site must be located at the outlet of the control device.

ii. Determine the $O_2$ concentration of the stationary internal combustion engine exhaust at the sampling port location; (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 (b) Measurements to determine $O_2$ concentration must be made at the same time as the measurements for PM concentration.

iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and (3) Method 4 of 40 CFR part 60, appendix A-3 (c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.

iv. Measure PM at the exhaust of the stationary internal combustion engine. (4) Method 5 of 40 CFR part 60, appendix A-3 (d) PM concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[79 FR 11251, Feb. 27, 2014]

Table 8 to Subpart III of Part 60—Applicability of General Provisions to Subpart III

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

<table>
<thead>
<tr>
<th>General Provisions citation</th>
<th>Subject of citation</th>
<th>Applies to subpart</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>§60.1</td>
<td>General applicability of the General Provisions</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.2</td>
<td>Definitions</td>
<td>Yes</td>
<td>Additional terms defined in §60.4219.</td>
</tr>
<tr>
<td>General Provisions citation</td>
<td>Subject of citation</td>
<td>Applies to subpart</td>
<td>Explanation</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------</td>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>§60.3</td>
<td>Units and abbreviations</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.4</td>
<td>Address</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.5</td>
<td>Determination of construction or modification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.6</td>
<td>Review of plans</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.7</td>
<td>Notification and Recordkeeping</td>
<td>Yes</td>
<td>Except that §60.7 only applies as specified in §60.4214(a).</td>
</tr>
<tr>
<td>§60.8</td>
<td>Performance tests</td>
<td>Yes</td>
<td>Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.</td>
</tr>
<tr>
<td>§60.9</td>
<td>Availability of information</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.10</td>
<td>State Authority</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.11</td>
<td>Compliance with standards and maintenance requirements</td>
<td>No</td>
<td>Requirements are specified in subpart III.</td>
</tr>
<tr>
<td>§60.12</td>
<td>Circumvention</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.13</td>
<td>Monitoring requirements</td>
<td>Yes</td>
<td>Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.</td>
</tr>
<tr>
<td>§60.14</td>
<td>Modification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.15</td>
<td>Reconstruction</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.16</td>
<td>Priority list</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.17</td>
<td>Incorporations by reference</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.18</td>
<td>General control device requirements</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>§60.19</td>
<td>General notification and reporting requirements</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
Attachment D

Part 70 Operating Permit No: T003-41020-00036

[Downloaded from the eCFR on October 31, 2016]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

SOURCE: 73 FR 3591, Jan. 18, 2008, unless otherwise noted.

What This Subpart Covers

§60.4230 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary SI ICE with a maximum engine power less than or equal to 19 kilowatt (KW) (25 horsepower (HP)) that are manufactured on or after July 1, 2008.

(2) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline fueled or that are rich burn engines fueled by liquefied petroleum gas (LPG), where the date of manufacture is:

(i) On or after July 1, 2008; or

(ii) On or after January 1, 2009, for emergency engines.

(3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) On or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) On or after January 1, 2009, for emergency engines.

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
(ii) on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

(5) Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006.

(6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.

(b) The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(d) For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines.

(e) Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(f) Owners and operators of facilities with internal combustion engines that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37972, June 28, 2011]

Emission Standards for Manufacturers

§60.4231 What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing such engines?

(a) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as follows:

<table>
<thead>
<tr>
<th>If engine displacement is</th>
<th>and manufacturing dates are</th>
<th>the engine must meet emission standards and related requirements for nonhandheld engines under</th>
</tr>
</thead>
<tbody>
<tr>
<td>below 225 cc</td>
<td>July 1, 2008 to December 31, 2011</td>
<td>40 CFR part 90.</td>
</tr>
<tr>
<td>below 225 cc</td>
<td>January 1, 2012 or later</td>
<td>40 CFR part 1054.</td>
</tr>
<tr>
<td>at or above 225 cc</td>
<td>July 1, 2008 to December 31, 2010</td>
<td>40 CFR part 90.</td>
</tr>
<tr>
<td>at or above 225 cc</td>
<td>January 1, 2011 or later</td>
<td>40 CFR part 1054.</td>
</tr>
</tbody>
</table>
(b) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that use gasolene and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE with a maximum engine power greater than 25 HP and less than 130 HP that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cubic centimeters (cc) that use gasoline to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.

(c) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc that are rich burn engines that use LPG to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.

(d) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) under the voluntary manufacturer certification program described in this subpart must certify those engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers who choose to certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP (except gasoline and rich burn engines that use LPG), must certify those engines to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc (except gasoline and rich burn engines that use LPG) to the certification emission standards for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate. For stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) manufactured prior to January 1, 2011, manufacturers may choose to certify these engines to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP.

(e) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) under the voluntary manufacturer certification program described in this subpart must certify those engines to the emission standards in Table 1 to this subpart. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) that are lean burn engines that use LPG to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. For stationary SI ICE with a maximum engine power greater than or equal to 100 HP (75 KW) and less than 500 HP (373 KW) manufactured prior to January 1, 2011, and for stationary SI ICE with a maximum engine power greater than or equal to 500 HP (373 KW) manufactured prior to July 1, 2010, manufacturers may choose to certify these engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048 applicable to engines that are not severe duty engines.

(f) Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, to the extent they apply to equipment manufacturers.
(g) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary SI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed stationary SI ICE.


§60.4232 How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?

Engines manufactured by stationary SI internal combustion engine manufacturers must meet the emission standards as required in §60.4231 during the certified emissions life of the engines.

Emission Standards for Owners and Operators

§60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(a) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE.

(b) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that use gasoline must comply with the emission standards in §60.4231(b) for their stationary SI ICE.

(c) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that are rich burn engines that use LPG must comply with the emission standards in §60.4231(c) for their stationary SI ICE.

(d) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards.

(e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

(f) Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (f)(1) through (5) of this section.

(1) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with emission standards in §60.4231(a) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in §60.4231(a) applicable to engines manufactured on July 1, 2008.
(2) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline engines and are modified or reconstructed after June 12, 2006, must comply with the emission standards in §60.4231(b) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(b) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).

(3) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in §60.4231(c). Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(c) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).

(4) Owners and operators of stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) or (e) of this section, except that such owners and operators of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides (NOx) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a NOx emission standard of 250 ppmvd at 15 percent oxygen (O2), a CO emission standard 540 ppmvd at 15 percent O2 (675 ppmvd at 15 percent O2 for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O2, where the date of manufacture of the engine is:

(i) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP (except lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP;

(iii) Prior to January 1, 2009, for emergency engines;

(iv) Prior to January 1, 2008, for non-emergency lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

(5) Owners and operators of stationary SI landfill/digester gas ICE engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (e) of this section for stationary landfill/digester gas engines. Engines with maximum engine power less than 500 HP and a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power greater than or equal to 500 HP manufactured on July 1, 2008. Engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP manufactured on July 1, 2007. Lean burn engines greater than or equal to 500 HP and less than 1,350 HP with a date of manufacture prior to January 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE that are lean burn engines greater than or equal to 500 HP and less than 1,350 HP and manufactured on January 1, 2008.

(g) Owners and operators of stationary SI wellhead gas ICE engines may petition the Administrator for approval on a case-by-case basis to meet emission standards no less stringent than the emission standards that apply to stationary emergency SI engines greater than 25 HP and less than 130 HP due to the presence of high sulfur levels in the fuel, as specified in Table 1 to this subpart. The request must, at a minimum, demonstrate that the fuel has high sulfur levels that prevent the use of aftertreatment controls and also that the owner has reasonably made all attempts possible to obtain an engine that will meet the standards without the use of aftertreatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel.

(h) Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section.
§60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

Other Requirements for Owners and Operators

§60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?

Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195.

§60.4236 What is the deadline for importing or installing stationary SI ICE produced in previous model years?

(a) After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233.

(b) After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010.

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

(d) In addition to the requirements specified in §§60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section.

(e) The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.

§60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

(a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

(b) Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

(c) If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.
Compliance Requirements for Manufacturers

§60.4238 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines ≤19 KW (25 HP) or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(a) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4239 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that use gasoline or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(b) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4240 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that are rich burn engines that use LPG or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(c) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4241 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program or a manufacturer of equipment containing such engines?

(a) Manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to certify their engines to the emission standards in §60.4231(d) or (e), as applicable, under the voluntary certification program described in this
subpart. Manufacturers who certify their engines under the voluntary certification program must meet the requirements as specified in paragraphs (b) through (g) of this section. In addition, manufacturers of stationary SI internal combustion engines who choose to certify their engines under the voluntary certification program, must also meet the requirements as specified in §60.4247.

(b) Manufacturers of engines other than those certified to standards in 40 CFR part 90 or 40 CFR part 1054 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D-1 cycle of International Organization of Standardization 8178-4: 1996(E) (incorporated by reference, see 40 CFR 60.17) or the test cycle requirements specified in Table 3 to 40 CFR 1048.505, except that Table 3 of 40 CFR 1048.505 applies to high load engines only. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

c) Certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, is voluntary, but manufacturers who decide to certify are subject to all of the requirements indicated in this subpart with regard to the engines included in their certification. Manufacturers must clearly label their stationary SI engines as certified or non-certified engines.

d) Manufacturers of natural gas fired stationary SI ICE who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the definition of pipeline-quality natural gas. The fuel used for certifying stationary SI natural gas engines must meet the definition of pipeline-quality natural gas as described in §60.4248. In addition, the manufacturer must provide information to the owner and operator of the certified stationary SI engine including the specifications of the pipeline-quality natural gas to which the engine is certified and what adjustments the owner or operator must make to the engine when installed in the field to ensure compliance with the emission standards.

(e) Manufacturers of stationary SI ICE that are lean burn engines fueled by LPG who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the specifications in 40 CFR 1065.720.

(f) Manufacturers may certify their engines for operation using gaseous fuels in addition to pipeline-quality natural gas; however, the manufacturer must specify the properties of that fuel and provide testing information showing that the engine will meet the emission standards specified in §60.4231(d) or (e), as applicable, when operating on that fuel. The manufacturer must also provide instructions for configuring the stationary engine to meet the emission standards on fuels that do not meet the pipeline-quality natural gas definition. The manufacturer must also provide information to the owner and operator of the certified stationary SI engine regarding the configuration that is most conducive to reduced emissions where the engine will be operated on gaseous fuels with different quality than the fuel that it was certified to.

(g) A stationary SI engine manufacturer may certify an engine family solely to the standards applicable to landfill/digester gas engines as specified in §60.4231(d) or (e), as applicable, but must certify their engines for operation using landfill/digester gas and must add a permanent label stating that the engine is for use only in landfill/digester gas applications. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(h) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

(i) For engines being certified to the voluntary certification standards in Table 1 of this subpart, the VOC measurement shall be made by following the procedures in 40 CFR 1065.260 and 1065.265 in order to determine the total NMHC emissions by using a flame-ionization detector and non-methane cutter. As an alternative to the
nonmethane cutter, manufacturers may use a gas chromatograph as allowed under 40 CFR 1065.267 and may measure ethane, as well as methane, for excluding such levels from the total VOC measurement.


§60.4242 What other requirements must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

(a) Stationary SI internal combustion engine manufacturers must meet the provisions of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as applicable, as well as 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1048 or 1054, except that engines certified pursuant to the voluntary certification procedures in §60.4241 are subject only to the provisions indicated in §60.4247 and are permitted to provide instructions to owners and operators allowing for deviations from certified configurations, if such deviations are consistent with the provisions of paragraphs §60.4241(c) through (f). Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, as applicable. Labels on engines certified to 40 CFR part 1048 must refer to stationary engines, rather than or in addition to nonroad engines, as appropriate.

(b) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054 for that model year may certify any such family that contains both nonroad and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts. This provision also applies to equipment or component manufacturers certifying to standards under 40 CFR part 1060.

(c) Manufacturers of engine families certified to 40 CFR part 1048 may meet the labeling requirements referred to in paragraph (a) of this section for stationary SI ICE by either adding a separate label containing the information required in paragraph (a) of this section or by adding the words “and stationary” after the word “nonroad” to the label.

(d) For all engines manufactured on or after January 1, 2011, and for all engines with a maximum engine power greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, a stationary SI engine manufacturer that certifies an engine family solely to the standards applicable to emergency engines must add a permanent label stating that the engines in that family are for emergency use only. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(e) All stationary SI engines subject to mandatory certification that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230. Stationary SI engines subject to standards in 40 CFR part 90 may use the provisions in 40 CFR 90.909. Manufacturers of stationary engines with a maximum engine power greater than 25 HP that are not certified to standards and other requirements under 40 CFR part 1048 are subject to the labeling provisions of 40 CFR 1048.20 pertaining to excluded stationary engines.

(f) For manufacturers of gaseous-fueled stationary engines required to meet the warranty provisions in 40 CFR 90.1103 or 1054.120, we may establish an hour-based warranty period equal to at least the certified emissions life of the engines (in engine operating hours) if we determine that these engines are likely to operate for a number of hours greater than the applicable useful life within 24 months. We will not approve an alternate warranty under this paragraph (f) for nonroad engines. An alternate warranty period approved under this paragraph (f) will be the specified number of engine operating hours or two years, whichever comes first. The engine manufacturer shall request this alternate warranty period in its application for certification or in an earlier submission. We may approve an alternate warranty period for an engine family subject to the following conditions:

1. The engines must be equipped with non-resettable hour meters.

2. The engines must be designed to operate for a number of hours substantially greater than the applicable certified emissions life.
(3) The emission-related warranty for the engines may not be shorter than any published warranty offered by the manufacturer without charge for the engines. Similarly, the emission-related warranty for any component shall not be shorter than any published warranty offered by the manufacturer without charge for that component.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008]

Compliance Requirements for Owners and Operators

§60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

(2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.

(i) If you are an owner or operator of a stationary SI internal combustion engine less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.

(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

(iii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

(i) If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent
practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for
minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.

(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep
a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate
the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you
must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years,
whichever comes first, thereafter to demonstrate compliance.

(c) If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission
standards specified in §60.4233(f), you must demonstrate compliance according paragraph (b)(2)(i) or (ii) of this
section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-
certified engine complies with the emission standards specified in §60.4233(f).

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to
the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an
emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and
testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described
in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the
requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine
under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs
(d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency
situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by
this paragraph (d)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests
are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission
organization or equivalent balancing authority and transmission operator, or the insurance company associated with
the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for
maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records
indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours
per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability
Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3,
Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined
by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability
Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5
percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations.
The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for
maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as
provided in paragraph (d)(3)(i) 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) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial
arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

(f) If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

(h) If you are an owner/operator of an stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.

(1) Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(i) If you are an owner or operator of a modified or reconstructed stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according to one of the methods specified in paragraphs (i)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4233(f), as applicable.
(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4244. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.


Testing Requirements for Owners and Operators

§60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 1 of this section:

\[
ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP-hr}
\]

(Eq. 1)

Where:

ER = Emission rate of NOX in g/HP-hr.

\(C_d\) = Measured NOX concentration in parts per million by volume (ppmv).

\(1.912 \times 10^{-3}\) = Conversion constant for ppm NOX to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:
Where:

\[ \text{ER} = \text{Emission rate of CO in g/HP-hr.} \]

\[ C_d = \text{Measured CO concentration in ppmv.} \]

\[ 1.164 \times 10^{-3} = \text{Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.} \]

\[ Q = \text{Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.} \]

\[ T = \text{Time of test run, in hours.} \]

\[ \text{HP-hr} = \text{Brake work of the engine, in HP-hr.} \]

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

\[ \text{ER} = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{\text{HP-hr}} \] (Eq. 3)

Where:

\[ \text{ER} = \text{Emission rate of VOC in g/HP-hr.} \]

\[ C_d = \text{VOC concentration measured as propane in ppmv.} \]

\[ 1.833 \times 10^{-3} = \text{Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.} \]

\[ Q = \text{Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.} \]

\[ T = \text{Time of test run, in hours.} \]

\[ \text{HP-hr} = \text{Brake work of the engine, in HP-hr.} \]

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

\[ RF_i = \frac{C_M}{C_A} \] (Eq. 4)
Where:

\( RF_i = \) Response factor of compound \( i \) when measured with EPA Method 25A.

\( CM_i = \) Measured concentration of compound \( i \) in ppmv as carbon.

\( CA_i = \) True concentration of compound \( i \) in ppmv as carbon.

\[
C_{i\text{corr}} = RF_i \times C_{i\text{meas}} \quad (\text{Eq. 5})
\]

Where:

\( C_{i\text{corr}} = \) Concentration of compound \( i \) corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

\( C_{i\text{meas}} = \) Concentration of compound \( i \) measured by EPA Method 320, ppmv as carbon.

\[
C_{P_{eq}} = 0.6098 \times C_{i\text{meas}} \quad (\text{Eq. 6})
\]

Where:

\( C_{P_{eq}} = \) Concentration of compound \( i \) in mg of propane equivalent per DSCM.

**Notification, Reports, and Records for Owners and Operators**

**§60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?**

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the
standards applicable to non-emergency engines, the owner or operator of 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.

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

1. Name and address of the owner or operator;

2. The address of the affected source;

3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

4. Emission control equipment; and

5. Fuel used.

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

(e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in §60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section.

1. The report must contain the following information:

   i. Company name and address where the engine is located.

   ii. Date of the report and beginning and ending dates of the reporting period.

   iii. Engine site rating and model year.

   iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

   v. Hours operated for the purposes specified in §60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(2)(ii) and (iii).

   vi. Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4243(d)(2)(ii) and (iii).

   vii. Hours spent for operation for the purposes specified in §60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

2. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.


General Provisions

§60.4246  What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

MOBILE SOURCE PROVISIONS

§60.4247  What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

(a) Manufacturers certifying to emission standards in 40 CFR part 90, including manufacturers certifying emergency engines below 130 HP, must meet the provisions of 40 CFR part 90. Manufacturers certifying to emission standards in 40 CFR part 1054 must meet the provisions of 40 CFR part 1054. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060 to the extent they apply to equipment manufacturers.

(b) Manufacturers required to certify to emission standards in 40 CFR part 1048 must meet the provisions of 40 CFR part 1048. Manufacturers certifying to emission standards in 40 CFR part 1048 pursuant to the voluntary certification program must meet the requirements in Table 4 to this subpart as well as the standards in 40 CFR 1048.101.

(c) For manufacturers of stationary SI internal combustion engines participating in the voluntary certification program and certifying engines to Table 1 to this subpart, Table 4 to this subpart shows which parts of the mobile source provisions in 40 CFR parts 1048, 1065, and 1068 apply to you. Compliance with the deterioration factor provisions under 40 CFR 1048.205(n) and 1048.240 will be required for engines built new on and after January 1, 2010. Prior to January 1, 2010, manufacturers of stationary internal combustion engines participating in the voluntary certification program have the option to develop their own deterioration factors based on an engineering analysis.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008]

Definitions

§60.4248  What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in 40 CFR 90.105, 40 CFR 1054.107, and 40 CFR 1060.101, as appropriate. The values for certified emissions life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The certified emissions life for stationary SI ICE with a maximum engine power greater than 75 KW (100 HP) certified under the voluntary manufacturer certification program of this subpart is 5,000 hours or 7 years, whichever comes first. You may request in your application for certification that we approve a shorter certified emissions life for an engine family. We may approve a shorter certified emissions life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter certified emissions life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use
engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The certified emissions life value may not be shorter than any of the following:

(i) 1,000 hours of operation.

(ii) Your recommended overhaul interval.

(iii) Your mechanical warranty for the engine.

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as appropriate.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

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 carbon dioxide (CO₂).

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4243(d) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4243(d), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.
(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4243(d).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4243(d)(2)(ii) or (iii) and §60.4243(d)(3)(i).

*Engine manufacturer* means the manufacturer of the engine. See the definition of “manufacturer” in this section.

*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.

*Freshly manufactured engine* means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

*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.

*Installed* means the engine is placed and secured at the location where it is intended to be operated.

*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 CO₂.

*Lean burn engine* means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

*Liquefied petroleum gas* means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining or natural gas production.

*Manufacturer* has the meaning given in section 216(1) of the Clean Air Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for resale.

*Maximum engine power* means maximum engine power as defined in 40 CFR 1048.801.

*Model year* means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

*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.

*Other internal combustion engine* means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

*Pipeline-quality natural gas* means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth’s surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a
pipeline. Pipeline-quality natural gas must either be composed of at least 70 percent methane by volume or have a
gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

*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 June 12, 2006, with passive emission control
technology for NOX (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.

*Rotary internal combustion engine* means any internal combustion engine which uses rotary motion to convert heat
energy into mechanical work.

*Spark ignition* means relating to 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 compression ignition and gaseous fuel (typically
natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total
fuel on an energy equivalent basis are spark ignition engines.

*Stationary internal combustion engine* means any internal combustion engine, except combustion turbines, that
converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a
stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph
(2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition.
Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

*Stationary internal combustion engine test cell/stand* means an engine test cell/stand, as defined in 40 CFR part 63,
subpart PPPPP, that tests stationary ICE.

*Stoichiometric* means the theoretical air-to-fuel ratio required for complete combustion.

*Subpart* means 40 CFR part 60, subpart JJJJ.

*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.

*Volatile organic compounds* means volatile organic compounds as defined in 40 CFR 51.100(s).

*Voluntary certification program* means an optional engine certification program that manufacturers of stationary SI
internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and
are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards
in §60.4231(d) or (e), as applicable.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 76 FR 37974, June 28, 2011; 78 FR 6698,
Jan. 30, 2013]
Table 1 to Subpart JJJJ of Part 60—NOX, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP

<table>
<thead>
<tr>
<th>Engine type and fuel</th>
<th>Maximum engine power</th>
<th>Manufacture date</th>
<th>Emission standards&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
</tr>
<tr>
<td>Non-Emergency SI Natural Gas&lt;sup&gt;b&lt;/sup&gt; and Non-Emergency SI Lean Burn LPG&lt;sup&gt;c&lt;/sup&gt;</td>
<td>100≤HP&lt;500</td>
<td>7/1/2008</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/1/2011</td>
<td>1.0</td>
</tr>
<tr>
<td>Non-Emergency SI Lean Burn Natural Gas and LPG</td>
<td>500≤HP&lt;1,350</td>
<td>1/1/2008</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/1/2010</td>
<td>1.0</td>
</tr>
<tr>
<td>Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500≤HP&lt;1,350)</td>
<td>HP≥500</td>
<td>7/1/2007</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/1/2010</td>
<td>1.0</td>
</tr>
<tr>
<td>Landfill/Digester Gas (except lean burn 500≤HP&lt;1,350)</td>
<td>HP&lt;500</td>
<td>7/1/2008</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/1/2011</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/1/2007</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/1/2010</td>
<td>2.0</td>
</tr>
<tr>
<td>Landfill/Digester Gas Lean Burn</td>
<td>500≤HP&lt;1,350</td>
<td>1/1/2008</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/1/2010</td>
<td>2.0</td>
</tr>
<tr>
<td>Emergency</td>
<td>25&lt;HP&lt;130</td>
<td>1/1/2009</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>130</td>
<td>2.0</td>
</tr>
</tbody>
</table>

<sup>a</sup>Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

<sup>b</sup>Owners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart.

<sup>c</sup>The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO<sub>x</sub> + HC.

<sup>d</sup>For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[76 FR 37975, June 28, 2011]
Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests

[As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load]

<table>
<thead>
<tr>
<th>For each</th>
<th>Complying with the requirement to</th>
<th>Using</th>
<th>According to the following requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244</td>
<td>a. limit the concentration of NOX in the stationary SI internal combustion engine exhaust</td>
<td>i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine; (1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate</td>
<td>(a) Alternatively, for NOX, O2, and moisture measurement, ducts ≥6 inches in diameter may be sampled at a single point located at the duct centroid and ducts &gt;6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (‘3-point long line’). If the duct is &gt;12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at ‘3-point long line’; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)</td>
<td>(b) Measurements to determine O2 concentration must be made at the same time as the measurements for NOx concentration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; (3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix Aa, or ASTM Method D6348-03de</td>
<td>(c) Measurements to determine moisture must be made at the same time as the measurement for NOx concentration.</td>
</tr>
<tr>
<td>For each</td>
<td>Complying with the requirement to</td>
<td>You must</td>
<td>Using</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>v. Measure NO(_x) at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device</td>
<td>(5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005)(^{ad}), Method 320 of 40 CFR part 63, appendix A(^a), or ASTM Method D6348-03(^d)</td>
</tr>
<tr>
<td>b. limit the concentration of CO in the stationary SI internal combustion engine exhaust</td>
<td>i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;</td>
<td>(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate</td>
<td>(a) Alternatively, for CO, O(_2), and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts &gt;6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (‘3-point long line’). If the duct is &gt;12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at ‘3-point long line’; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.</td>
</tr>
<tr>
<td></td>
<td>ii. Determine the O(_2) concentration of the stationary internal combustion engine exhaust at the sampling port location;</td>
<td>(2) Method 3, 3A, or 3B(^h) of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)(^{ad})</td>
<td>(b) Measurements to determine O(_2) concentration must be made at the same time as the measurements for CO concentration.</td>
</tr>
<tr>
<td></td>
<td>iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;</td>
<td>(3) Method 2 or 2C of 40 CFR 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and</td>
<td>(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A(^a), or ASTM Method D6348-03(^d)</td>
<td>(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.</td>
</tr>
<tr>
<td>For each</td>
<td>Complying with the requirement to</td>
<td>You must</td>
<td>Using</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>v.</td>
<td>Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device</td>
<td></td>
<td>(5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005)</td>
</tr>
<tr>
<td>c.</td>
<td>limit the concentration of VOC in the stationary SI internal combustion engine exhaust</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;</td>
<td></td>
<td>(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate</td>
</tr>
<tr>
<td>ii.</td>
<td>Determine the O$_2$ concentration of the stationary internal combustion engine exhaust at the sampling port location;</td>
<td></td>
<td>(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)</td>
</tr>
<tr>
<td>iii.</td>
<td>If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;</td>
<td></td>
<td>(3) Method 2 or 2C of 40 CFR 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7</td>
</tr>
<tr>
<td>iv.</td>
<td>If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and</td>
<td></td>
<td>(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A*, or ASTM Method D6348-03</td>
</tr>
</tbody>
</table>
For each requirement, you must:

<table>
<thead>
<tr>
<th>For each</th>
<th>Complying with the requirement to</th>
<th>You must</th>
<th>Using</th>
<th>According to the following requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>v. Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device</td>
<td></td>
<td>(5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-7, Method 25A with the use of a hydrocarbon cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6co, Method 320 of 40 CFR part 63, appendix A°, or ASTM Method D6348-03</td>
<td>(d) Results of this test consist of the average of the three 1-hour or longer runs.</td>
<td></td>
</tr>
</tbody>
</table>

aAlso, you may petition the Administrator for approval to use alternative methods for portable analyzer.

bYou may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O₂ content of the exhaust gas as an alternative to EPA Method 3B. AMSE PTC 19.10-1981 incorporated by reference, see 40 CFR 60.17

cYou may use EPA Method 18 of 40 CFR part 60, appendix A-6, provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (http://www.epa.gov/ttn/emc/prelim/otm11.pdf).

dIncorporated by reference; see 40 CFR 60.17.

eYou must meet the requirements in §60.4245(d).

[81 FR 59809, Aug. 30, 2016]

Table 3 to Subpart JJJJ of Part 60—Applicability of General Provisions to Subpart JJJJ

[As stated in §60.4246, you must comply with the following applicable General Provisions]

<table>
<thead>
<tr>
<th>General provisions citation</th>
<th>Subject of citation</th>
<th>Applies to subpart</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>§60.1</td>
<td>General applicability of the General Provisions</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.2</td>
<td>Definitions</td>
<td>Yes</td>
<td>Additional terms defined in §60.4248.</td>
</tr>
<tr>
<td>§60.3</td>
<td>Units and abbreviations</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.4</td>
<td>Address</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.5</td>
<td>Determination of construction or modification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.6</td>
<td>Review of plans</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.7</td>
<td>Notification and Recordkeeping</td>
<td>Yes</td>
<td>Except that §60.7 only applies as specified in §60.4245.</td>
</tr>
<tr>
<td>§60.8</td>
<td>Performance tests</td>
<td>Yes</td>
<td>Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.</td>
</tr>
</tbody>
</table>
### General provisions citation

<table>
<thead>
<tr>
<th>General provisions citation</th>
<th>Subject of citation</th>
<th>Applies to subpart</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>§60.9</td>
<td>Availability of information</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.10</td>
<td>State Authority</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.11</td>
<td>Compliance with standards and maintenance requirements</td>
<td>Yes</td>
<td>Requirements are specified in subpart JJJJ.</td>
</tr>
<tr>
<td>§60.12</td>
<td>Circumvention</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.13</td>
<td>Monitoring requirements</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>§60.14</td>
<td>Modification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.15</td>
<td>Reconstruction</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.16</td>
<td>Priority list</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.17</td>
<td>Incorporations by reference</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§60.18</td>
<td>General control device requirements</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>§60.19</td>
<td>General notification and reporting requirements</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

### Table 4 to Subpart JJJJ of Part 60—Applicability of Mobile Source Provisions for Manufacturers Participating in the Voluntary Certification Program and Certifying Stationary SI ICE to Emission Standards in Table 1 of Subpart JJJJ

[As stated in §60.4247, you must comply with the following applicable mobile source provisions if you are a manufacturer participating in the voluntary certification program and certifying stationary SI ICE to emission standards in Table 1 of subpart JJJJ]

<table>
<thead>
<tr>
<th>Mobile source provisions citation</th>
<th>Subject of citation</th>
<th>Applies to subpart</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1048 subpart A</td>
<td>Overview and Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1048 subpart B</td>
<td>Emission Standards and Related Requirements</td>
<td>Yes</td>
<td>Except for the specific sections below.</td>
</tr>
<tr>
<td>1048.101</td>
<td>Exhaust Emission Standards</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1048.105</td>
<td>Evaporative Emission Standards</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1048.110</td>
<td>Diagnosing Malfunctions</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1048.140</td>
<td>Certifying Blue Sky Series Engines</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1048.145</td>
<td>Interim Provisions</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1048 subpart C</td>
<td>Certifying Engine Families</td>
<td>Yes</td>
<td>Except for the specific sections below.</td>
</tr>
<tr>
<td>1048.205(b)</td>
<td>AECD reporting</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1048.205(c)</td>
<td>OBD Requirements</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1048.205(n)</td>
<td>Deterioration Factors</td>
<td>Yes</td>
<td>Except as indicated in 60.4247(c).</td>
</tr>
<tr>
<td>1048.205(p)(1)</td>
<td>Deterioration Factor Discussion</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Mobile source provisions citation</td>
<td>Subject of citation</td>
<td>Applies to subpart</td>
<td>Explanation</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
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<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1048.205(p)(2)</td>
<td>Liquid Fuels as they require</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1048.240(b)(c)(d)</td>
<td>Deterioration Factors</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1048 subpart D</td>
<td>Testing Production-Line Engines</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1048 subpart E</td>
<td>Testing In-Use Engines</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1048 subpart F</td>
<td>Test Procedures</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1065.5(a)(4)</td>
<td>Raw sampling (refers reader back to the specific emissions regulation for guidance)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1048 subpart G</td>
<td>Compliance Provisions</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1048 subpart H</td>
<td>Reserved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1048 subpart I</td>
<td>Definitions and Other Reference Information</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1048 appendix I and II</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1065 (all subparts)</td>
<td>Engine Testing Procedures</td>
<td>Yes</td>
<td>Except for the specific section below.</td>
</tr>
<tr>
<td>1065.715</td>
<td>Test Fuel Specifications for Natural Gas</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1068 (all subparts)</td>
<td>General Compliance Provisions for Nonroad Programs</td>
<td>Yes</td>
<td>Except for the specific sections below.</td>
</tr>
<tr>
<td>1068.245</td>
<td>Hardship Provisions for Unusual Circumstances</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1068.250</td>
<td>Hardship Provisions for Small-Volume Manufacturers</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>1068.255</td>
<td>Hardship Provisions for Equipment Manufacturers and Secondary Engine Manufacturers</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
What This Subpart Covers

§ 63.2330   What is the purpose of this subpart?

This subpart establishes national emission limitations, operating limits, and work practice standards for organic hazardous air pollutants (HAP) emitted from organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations, operating limits, and work practice standards.

§ 63.2334   Am I subject to this subpart?

(a) Except as provided for in paragraphs (b) and (c) of this section, you are subject to this subpart if you own or operate an OLD operation that is located at, or is part of, a major source of HAP emissions. An OLD operation may occupy an entire plant site or be collocated with other industrial (e.g., manufacturing) operations at the same plant site.

(b) Organic liquid distribution operations located at research and development facilities, consistent with section 112(c)(7) of the Clean Air Act (CAA), are not subject to this subpart.

(c) Organic liquid distribution operations do not include the activities and equipment, including product loading racks, used to process, store, or transfer organic liquids at facilities listed in paragraph (c) (1) and (2) of this section.

(1) Oil and natural gas production field facilities, as the term “facility” is defined in § 63.761 of subpart HH.

(2) Natural gas transmission and storage facilities, as the term “facility” is defined in § 63.1271 of subpart HHH.

§ 63.2338   What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, or existing OLD operation affected source.

(b) Except as provided in paragraph (c) of this section, the affected source is the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility that is a major source of HAP. The affected source is composed of:

(1) All storage tanks storing organic liquids.
(2) All transfer racks at which organic liquids are loaded into or unloaded out of transport vehicles and/or containers.

(3) All equipment leak components in organic liquids service that are associated with:

(i) Storage tanks storing organic liquids;

(ii) Transfer racks loading or unloading organic liquids;

(iii) Pipelines that transfer organic liquids directly between two storage tanks that are subject to this subpart;

(iv) Pipelines that transfer organic liquids directly between a storage tank subject to this subpart and a transfer rack subject to this subpart; and

(v) Pipelines that transfer organic liquids directly between two transfer racks that are subject to this subpart.

(4) All transport vehicles while they are loading or unloading organic liquids at transfer racks subject to this subpart.

(5) All containers while they are loading or unloading organic liquids at transfer racks subject to this subpart.

(c) The equipment listed in paragraphs (c)(1) through (4) of this section and used in the identified operations is excluded from the affected source.

(1) Storage tanks, transfer racks, transport vehicles, containers, and equipment leak components that are part of an affected source under another 40 CFR part 63 national emission standards for hazardous air pollutants (NESHAP).

(2) Non-permanent storage tanks, transfer racks, transport vehicles, containers, and equipment leak components when used in special situation distribution loading and unloading operations (such as maintenance or upset liquids management).

(3) Storage tanks, transfer racks, transport vehicles, containers, and equipment leak components when used to conduct maintenance activities, such as stormwater management, liquid removal from tanks for inspections and maintenance, or changeovers to a different liquid stored in a storage tank.

(d) An affected source is a new affected source if you commenced construction of the affected source after April 2, 2002, and you meet the applicability criteria in § 63.2334 at the time you commenced operation.

(e) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.

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


§ 63.2342 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to the schedule identified in paragraph (a)(1), (a)(2), or (a)(3) of this section, as applicable.

(1)(i) Except as provided in paragraph (a)(1)(ii) of this section, if you startup your new affected source on or before February 3, 2004 or if you reconstruct your affected source on or before February 3, 2004, you must comply with the emission limitations, operating limits, and work practice standards for new and reconstructed sources in this subpart no later than February 3, 2004.

(ii) For any emission source listed in paragraph § 63.2338(b) at an affected source that commenced construction or reconstruction after April 2, 2002, but before February 3, 2004, that is required to be controlled based on the applicability criteria in this subpart, but:
(A) Would not have been required to be controlled based on the applicability criteria as proposed for this subpart, you must comply with the emission limitations, operating limits, and work practice standards for each such emission source based on the schedule found in paragraph (b) of this section or at startup, whichever is later; or

(B) Would have been subject to a less stringent degree of control requirement as proposed for this subpart, you must comply with the emission limitations, operating limits, and work practice standards in this subpart for each such emission source based on the schedule found in paragraph (b) of this section or at startup, whichever is later, and if you start up your affected new or reconstructed source before February 5, 2007, you must comply with the emission limitations, operating limits, and work practice standards for each such emission source as proposed for this subpart, until you are required to comply with the emission limitations, operating limits, and work practice standards in this subpart for each such emission source based on the schedule found in paragraph (b) of this section.

(2) If you commence construction of or reconstruct your affected source after February 3, 2004, you must comply with the emission limitations, operating limits, and work practice standards for new and reconstructed sources in this subpart upon startup of your affected source.

(3) If, after startup of a new affected source, the total actual annual facility-level organic liquid loading volume at that source exceeds the criteria for control in Table 2 to this subpart, items 9 and 10, the owner or operator must comply with the transfer rack requirements specified in §63.2346(b) immediately; that is, be in compliance the first day of the period following the end of the 3-year period triggering the control criteria.

(b)(1) If you have an existing affected source, you must comply with the emission limitations, operating limits, and work practice standards for existing affected sources no later than February 5, 2007, except as provided in paragraphs (b)(2) and (3) of this section.

(2) Floating roof storage tanks at existing affected sources must be in compliance with the work practice standards in Table 4 to this subpart, items 7 and 8, at all times after the next degassing and cleaning activity or within 10 years after February 3, 2004, whichever occurs first. If the first degassing and cleaning activity occurs during the 3 years following February 3, 2004, the compliance date is February 5, 2007.

(3)(i) If an addition or change other than reconstruction as defined in §63.2 is made to an existing affected facility that causes the total actual annual facility-level organic liquid loading volume to exceed the criteria for control in Table 2 to this subpart, items 7 and 8, the owner or operator must comply with the transfer rack requirements specified in §63.2346(b) immediately; that is, be in compliance the first day of the period following the end of the 3-year period triggering the control criteria.

(ii) If the owner or operator believes that compliance with the transfer rack emission limits cannot be achieved immediately, as specified in paragraph (b)(3)(i) of this section, the owner or operator may submit a request for a compliance extension, as specified in paragraphs (b)(3)(ii)(A) through (I) of this section. Subject to paragraph (b)(3)(ii)(B) of this section, until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph (b)(3)(ii), the owner or operator of the transfer rack subject to the requirements of this section shall comply with all applicable requirements of this subpart. Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(A) Submittal. The owner or operator shall submit a request for a compliance extension to the Administrator (or a State, when the State has an approved 40 CFR part 70 permit program and the source is required to obtain a 40 CFR part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) seeking an extension allowing the source up to 1 additional year to comply with the transfer rack standard, if such additional period is necessary for the installation of controls. The owner or operator of the affected source who has requested an extension of compliance under this paragraph (b)(3)(ii)(A) and who is otherwise required to obtain a title V permit shall apply for such permit, or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph (b)(3)(ii)(A) will be incorporated into the affected source's title V permit according to the provisions of 40 CFR part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) When to submit. (1) Any request submitted under paragraph (b)(3)(ii)(A) of this section must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraph (b)(3)(i) of this section), except as provided for in paragraph (b)(3)(ii)(B) of this section. Nonfrivolous
requests submitted under this paragraph (b)(3)(ii)(B)(1) will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial.

(2) An owner or operator may submit a compliance extension request after the date specified in paragraph (b)(3)(ii)(B)(1) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (b)(3)(ii)(C) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph (b)(3)(ii)(B)(2) will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(C) Information required. The request for a compliance extension under paragraph (b)(3)(ii)(A) of this section shall include the following information:

(1) The name and address of the owner or operator and the address of the existing source if it differs from the address of the owner or operator;

(2) The name, address, and telephone number of a contact person for further information;

(3) An identification of the organic liquid distribution operation and of the specific equipment for which additional compliance time is required;

(4) A description of the controls to be installed to comply with the standard;

(5) Justification for the length of time being requested; and

(6) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(i) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated;

(ii) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(iii) The date by which final compliance is to be achieved.

(D) Approval of request for extension of compliance. Based on the information provided in any request made under paragraph (b)(3)(ii)(C) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with the transfer rack emission standard, as specified in paragraph (b)(3)(ii) of this section. The extension will be in writing and will—

(1) Identify each affected source covered by the extension;

(2) Specify the termination date of the extension;

(3) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(4) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests);

(5) Specify the contents of the progress reports to be submitted and the dates by which such reports are to be submitted, if required pursuant to paragraph (b)(3)(ii)(E) of this section.
(6) Under paragraph (b)(3)(ii) of this section, specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period.

(E) Progress reports. The owner or operator of an existing source that has been granted an extension of compliance under paragraph (b)(3)(ii)(D) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached.

(F) Notification of approval or intention to deny. (1) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (b)(3)(ii) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application; that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. Failure by the Administrator to act within 30 calendar days to approve or disapprove a request submitted under paragraph (b)(3)(ii) of this section does not constitute automatic approval of the request.

(2) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with:

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(4) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(G) Termination of extension of compliance. The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (b)(3)(ii)(D)(3) or paragraph (b)(3)(ii)(D)(4) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(1) Notice of the reason for termination; and

(2) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(3) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.
(H) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the CAA.

(I) Limitation on use of compliance extension. The owner or operator may request an extension of compliance under the provisions specified in paragraph (b)(3)(ii) of this section only once for each facility.

(c) If you have an area source that does not commence reconstruction but increases its emissions or its potential to emit such that it becomes a major source of HAP emissions and an existing affected source subject to this subpart, you must be in compliance by 3 years after the area source becomes a major source.

(d) You must meet the notification requirements in §§ 63.2343 and 63.2382(a), as applicable, according to the schedules in § 63.2382(a) and (b)(1) through (3) and in subpart A of this part. Some of these notifications must be submitted before the compliance dates for the emission limitations, operating limits, and work practice standards in this subpart.


§ 63.2343 What are my requirements for emission sources not requiring control?

This section establishes the notification, recordkeeping, and reporting requirements for emission sources identified in § 63.2338 that do not require control under this subpart (i.e., under paragraphs (a) through (e) of § 63.2346). Such emission sources are not subject to any other notification, recordkeeping, or reporting sections in this subpart, including § 63.2350(c), except as indicated in paragraphs (a) through (d) of this section.

(a) For each storage tank subject to this subpart having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each storage tank and transfer rack identified in paragraph (a) of this section is not required to be controlled. The documentation must be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to § 63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in paragraph (a) of this section on a plant site plan or process and instrumentation diagram (P&ID).

(b) For each storage tank subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 to this subpart, items 1 through 6, you must comply with the requirements specified in paragraphs (b)(1) through (3) of this section.

(1)(i) You must submit the information in § 63.2386(c)(1), (2), (3), and (10)(i) in either the Notification of Compliance Status, according to the schedule specified in Table 12 to this subpart, or in your first Compliance report, according to the schedule specified in § 63.2386(b), whichever occurs first.

(ii)(A) If you submit your first Compliance report before your Notification of Compliance Status, the Notification of Compliance Status must contain the information specified in § 63.2386(d)(3) and (4) if any of the changes identified in paragraph (d) of this section have occurred since the filing of the first Compliance report. If none of the changes identified in paragraph (d) of this section have occurred since the filing of the first Compliance report, you do not need to report the information specified in § 63.2386(c)(10)(i) when you submit your Notification of Compliance Status.

(B) If you submit your Notification of Compliance Status before your first Compliance report, your first Compliance report must contain the information specified in § 63.2386(d)(3) and (4) if any of the changes specified in paragraph (d) of this section have occurred since the filing of the Notification of Compliance Status.

(iii) If you are already submitting a Notification of Compliance Status or a first Compliance report under § 63.2386(c), you do not need to submit a separate Notification of Compliance Status or first Compliance report for each storage tank that meets the conditions identified in paragraph (b) of this section (i.e., a single Notification of Compliance Status or first Compliance report should be submitted).
(2)(i) You must submit a subsequent Compliance report according to the schedule in § 63.2386(b) whenever any of the events in paragraph (d) of this section occur, as applicable.

(ii) Your subsequent Compliance reports must contain the information in § 63.2386(c)(1), (2), (3) and, as applicable, in § 63.2386(d)(3) and (4). If you are already submitting a subsequent Compliance report under § 63.2386(d), you do not need to submit a separate subsequent Compliance report for each storage tank that meets the conditions identified in paragraph (b) of this section (i.e., a single subsequent Compliance report should be submitted).

(3) For each storage tank that meets the conditions identified in paragraph (b) of this section, you must keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under this subpart. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to § 63.10(b)(1), including records stored in electronic form in a separate location.

(c) For each transfer rack subject to this subpart that loads organic liquids but is not subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must comply with the requirements specified in paragraphs (c)(1) through (3) of this section.

(1)(i) You must submit the information in § 63.2386(c)(1), (2), (3), and (10)(i) in either the Notification of Compliance Status, according to the schedule specified in Table 12 to this subpart, or a first Compliance report, according to the schedule specified in § 63.2386(b), whichever occurs first.

(ii)(A) If you submit your first Compliance report before your Notification of Compliance Status, the Notification of Compliance Status must contain the information specified in § 63.2386(d)(3) and (4) if any of the changes identified in paragraph (d) of this section have occurred since the filing of the first Compliance report. If none of the changes identified in paragraph (d) of this section have occurred since the filing of the first Compliance report, you do not need to report the information specified in § 63.2386(c)(10)(i) when you submit your Notification of Compliance Status.

(B) If you submit your Notification of Compliance Status before your first Compliance report, your first Compliance report must contain the information specified in § 63.2386(d)(3) and (4) if any of the changes specified in paragraph (d) of this section have occurred since the filing of the Notification of Compliance Status.

(iii) If you are already submitting a Notification of Compliance Status or a first Compliance report under § 63.2386(c), you do not need to submit a separate Notification of Compliance Status or first Compliance report for each transfer rack that meets the conditions identified in paragraph (b) of this section (i.e., a single Notification of Compliance Status or first Compliance report should be submitted).

(2)(i) You must submit a subsequent Compliance report according to the schedule in § 63.2386(b) whenever any of the events in paragraph (d) of this section occur, as applicable.

(ii) Your subsequent Compliance reports must contain the information in § 63.2386(c)(1), (2), (3) and, as applicable, in § 63.2386(d)(3) and (4). If you are already submitting a subsequent Compliance report under § 63.2386(d), you do not need to submit a separate subsequent Compliance report for each transfer rack that meets the conditions identified in paragraph (c) of this section (i.e., a single subsequent Compliance report should be submitted).

(3) For each transfer rack that meets the conditions identified in paragraph (c) of this section, you must keep documentation, including the records specified in § 63.2390(d), that verifies the transfer rack is not required to be controlled under this subpart. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to § 63.10(b)(1), including records stored in electronic form in a separate location.

(d) If one or more of the events identified in paragraphs (d)(1) through (4) of this section occur since the filing of the Notification of Compliance Status or the last Compliance report, you must submit a subsequent Compliance report as specified in paragraphs (b)(2) and (c)(2) of this section.

(1) Any storage tank or transfer rack became subject to control under this subpart EEEE; or
(2) Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of this subpart; or

(3) Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or

(4) Any of the information required in § 63.2386(c)(1), § 63.2386(c)(2), or § 63.2386(c)(3) has changed.

[71 FR 42906, July 28, 2006, as amended at 73 FR 21830, Apr. 23, 2008]

Emission Limitations, Operating Limits, and Work Practice Standards

§ 63.2346 What emission limitations, operating limits, and work practice standards must I meet?

(a) **Storage tanks.** For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, items 1 through 5, you must comply with paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section. For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, item 6, you must comply with paragraph (a)(1), (a)(2), or (a)(4) of this section.

(1) Meet the emission limits specified in Table 2 to this subpart and comply with the applicable requirements specified in 40 CFR part 63, subpart SS, for meeting emission limits, except substitute the term “storage tank” at each occurrence of the term “storage vessel” in subpart SS.

(2) Route emissions to fuel gas systems or back into a process as specified in 40 CFR part 63, subpart SS.

(3) Comply with 40 CFR part 63, subpart WW (control level 2).

(4) Use a vapor balancing system that complies with the requirements specified in paragraphs (a)(4)(i) through (vii) of this section and with the recordkeeping requirements specified in § 63.2390(e).

(i) The vapor balancing system must be designed and operated to route organic HAP vapors displaced from loading of the storage tank to the transport vehicle from which the storage tank is filled.

(ii) Transport vehicles must have a current certification in accordance with the United States Department of Transportation (U.S. DOT) pressure test requirements of 49 CFR part 180 for cargo tanks and 49 CFR 173.31 for tank cars.

(iii) Organic liquids must only be unloaded from cargo tanks or tank cars when vapor collection systems are connected to the storage tank’s vapor collection system.

(iv) No pressure relief device on the storage tank, or on the cargo tank or tank car, shall open during loading or as a result of diurnal temperature changes (breathing losses).

(v) Pressure relief devices must be set to no less than 2.5 pounds per square inch gauge (psig) at all times to prevent breathing losses. Pressure relief devices may be set at values less than 2.5 psig if the owner or operator provides rationale in the notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times. The owner or operator shall comply with paragraphs (a)(4)(v)(A) through (C) of this section for each pressure relief valve.

(A) The pressure relief valve shall be monitored quarterly using the method described in § 63.180(b).

(B) An instrument reading of 500 parts per million by volume (ppmv) or greater defines a leak.

(C) When a leak is detected, it shall be repaired as soon as practicable, but no later than 5 days after it is detected, and the owner or operator shall comply with the recordkeeping requirements of § 63.181(d)(1) through (4).
(vi) Cargo tanks and tank cars that deliver organic liquids to a storage tank must be reloaded or cleaned at a facility that utilizes the control techniques specified in paragraph (a)(4)(vi)(A) or (a)(4)(vi)(B) of this section.

(A) The cargo tank or tank car must be connected to a closed-vent system with a control device that reduces inlet emissions of total organic HAP by 95 percent by weight or greater or to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air.

(B) A vapor balancing system designed and operated to collect organic HAP vapor displaced from the cargo tank or tank car during reloading must be used to route the collected vapor to the storage tank from which the liquid being transferred originated or to another storage tank connected to a common header.

(vii) The owner or operator of the facility where the cargo tank or tank car is reloaded or cleaned must comply with paragraphs (a)(4)(vii)(A) through (D) of this section.

(A) Submit to the owner or operator of the storage tank and to the Administrator a written certification that the reloading or cleaning facility will meet the requirements of paragraph (a)(4)(vii)(A) through (C) of this section. The certifying entity may revoke the written certification by sending a written statement to the owner or operator of the storage tank giving at least 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the requirements of this paragraph (a)(4)(vii) of this section.

(B) If complying with paragraph (a)(4)(vi)(A) of this section, comply with the requirements for a closed vent system and control device as specified in this subpart EEEE. The notification requirements in §63.2382 and the reporting requirements in §63.2386 do not apply to the owner or operator of the offsite cleaning or reloading facility.

(C) If complying with paragraph (a)(4)(vi)(B) of this section, keep the records specified in §63.2390(e)(3) or equivalent recordkeeping approved by the Administrator.

(D) After the compliance dates specified in §63.2342, at an offsite reloading or cleaning facility subject to §63.2346(a)(4), compliance with the monitoring, recordkeeping, and reporting provisions of any other subpart of this part 63 that has monitoring, recordkeeping, and reporting provisions constitutes compliance with the monitoring, recordkeeping and reporting provisions of §63.2346(a)(4)(vii)(B) or §63.2346(a)(4)(vii)(C). You must identify in your notification of compliance status report required by §63.2382(d) the subpart of this part 63 with which the owner or operator of the offsite reloading or cleaning facility complies.

(b) Transfer racks. For each transfer rack that is part of the collection of transfer racks that meets the total actual annual facility-level organic liquid loading volume criterion for control in Table 2 to this subpart, items 7 through 10, you must comply with paragraph (b)(1), (b)(2), or (b)(3) of this section for each arm in the transfer rack loading an organic liquid whose organic HAP content meets the organic HAP criterion for control in Table 2 to this subpart, items 7 through 10. For existing affected sources, you must comply with paragraph (b)(1), (b)(2), or (b)(3)(i) of this section during the loading of organic liquids into transport vehicles. For new affected sources, you must comply with paragraph (b)(1), (b)(2), or (b)(3)(i) and (ii) of this section during the loading of organic liquids into transport vehicles and containers. If the total actual annual facility-level organic liquid loading volume at any affected source is equal to or greater than the loading volume criteria for control in Table 2 to this subpart, but at a later date is less than the loading volume criteria for control, compliance with paragraph (b)(1), (b)(2), or (b)(3) of this section is no longer required. For new sources and reconstructed sources, as defined in §63.2338(d) and (e), if at a later date, the total actual annual facility-level organic liquid loading volume again becomes equal to or greater than the loading volume criteria for control in Table 2 to this subpart, the owner or operator must comply with paragraph (b)(1), (b)(2), or (b)(3)(i) and (ii) of this section immediately, as specified in §63.2342(a)(3). For existing sources, as defined in §63.2338(f), if at a later date, the total actual annual facility-level organic liquid loading volume again becomes equal to or greater than the loading volume criteria for control in Table 2 to this subpart, the owner or operator must comply with paragraph (b)(1), (b)(2), or (b)(3)(i) of this section immediately, as specified in §63.2342(b)(3)(i), unless an alternative compliance schedule has been approved under §63.2342(b)(3)(ii) and subject to the use limitation specified in §63.2342(b)(3)(ii)(I).

(1) Meet the emission limits specified in Table 2 to this subpart and comply with the applicable requirements for transfer racks specified in 40 CFR part 63, subpart SS, for meeting emission limits.

(2) Route emissions to fuel gas systems or back into a process as specified in 40 CFR part 63, subpart SS.
(3)(i) Use a vapor balancing system that routes organic HAP vapors displaced from the loading of organic liquids into transport vehicles to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header.

(ii) Use a vapor balancing system that routes the organic HAP vapors displaced from the loading of organic liquids into containers directly (e.g., no intervening tank or containment area such as a room) to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header.

c) **Equipment leak components.** For each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, you must comply with the applicable requirements under 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H. Pumps, valves, and sampling connectors that are insulated to provide protection against persistent sub-freezing temperatures are subject to the “difficult to monitor” provisions in the applicable subpart selected by the owner or operator. This paragraph only applies if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 to this subpart.

d) **Transport vehicles.** For each transport vehicle equipped with vapor collection equipment that is loaded at a transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must comply with paragraph (d)(1) of this section. For each transport vehicle without vapor collection equipment that is loaded at a transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must comply with paragraph (d)(2) of this section.

1. Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles and comply with the provisions in 40 CFR 60.502(f) through (i), except substitute the term “transport vehicle” at each occurrence of the term “tank truck” or “gasoline tank truck” in those paragraphs.

2. Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

e) **Operating limits.** For each high throughput transfer rack, you must meet each operating limit in Table 3 to this subpart for each control device used to comply with the provisions of this subpart whenever emissions from the loading of organic liquids are routed to the control device. For each storage tank and low throughput transfer rack, you must comply with the requirements for monitored parameters as specified in subpart SS of this part for storage vessels and, during the loading of organic liquids, for low throughput transfer racks, respectively. Alternatively, you may comply with the operating limits in Table 3 to this subpart.

f) For noncombustion devices, if you elect to demonstrate compliance with a percent reduction requirement in Table 2 to this subpart using total organic compounds (TOC) rather than organic HAP, you must first demonstrate, subject to the approval of the Administrator, that TOC is an appropriate surrogate for organic HAP in your case; that is, for your storage tank(s) and/or transfer rack(s), the percent destruction of organic HAP is equal to or higher than the percent destruction of TOC. This demonstration must be conducted prior to or during the initial compliance test.

g) As provided in § 63.6(g), you may request approval from the Administrator to use an alternative to the emission limitations, operating limits, and work practice standards in this section. You must follow the procedures in § 63.177(b) through (e) in applying for permission to use such an alternative. If you apply for permission to use an alternative to the emission limitations, operating limits, and work practice standards in this section, you must submit the information described in § 63.6(g)(2).

(h) [Reserved]

(i) Opening of a safety device is allowed at any time that it is required to avoid unsafe operating conditions.

(j) If you elect to comply with this subpart by combining emissions from different emission sources subject to this subpart in a single control device, then you must comply with the provisions specified in § 63.982(f).

General Compliance Requirements

§ 63.2350 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limits, and work practice standards in this subpart at all times when the equipment identified in § 63.2338(b)(1) through (4) is in OLD operation.

(b) 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) Except for emission sources not required to be controlled as specified in § 63.2343, you must develop a written startup, shutdown, and malfunction (SSM) plan according to the provisions in § 63.6(e)(3).


Testing and Initial Compliance Requirements

§ 63.2354 What performance tests, design evaluations, and performance evaluations must I conduct?

(a)(1) For each performance test that you conduct, you must use the procedures specified in subpart SS of this part and the provisions specified in paragraph (b) of this section.

(2) For each design evaluation you conduct, you must use the procedures specified in subpart SS of this part.

(3) For each performance evaluation of a continuous emission monitoring system (CEMS) you conduct, you must follow the requirements in § 63.8(e).

(b)(1) For nonflare control devices, you must conduct each performance test according to the requirements in § 63.7(e)(1), and either § 63.988(b), § 63.990(b), or § 63.995(b), using the procedures specified in § 63.997(e).

(2) You must conduct three separate test runs for each performance test on a nonflare control device as specified in §§ 63.7(e)(3) and 63.997(e)(1)(v). Each test run must last at least 1 hour, except as provided in § 63.997(e)(1)(v)(A) and (B).

(3)(i) In addition to EPA Method 25 or 25A of 40 CFR part 60, appendix A, to determine compliance with the organic HAP or TOC emission limit, you may use EPA Method 18 of 40 CFR part 60, appendix A, as specified in paragraph (b)(3)(ii) of this section. As an alternative to EPA Method 18, you may use ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference, see § 63.14), under the conditions specified in paragraph (b)(3)(ii) of this section.

(A) If you use EPA Method 18 to measure compliance with the percentage efficiency limit, you must first determine which organic HAP are present in the inlet gas stream (i.e., uncontrolled emissions) using knowledge of the organic liquids or the screening procedure described in EPA Method 18. In conducting the performance test, you must analyze samples collected as specified in EPA Method 18, simultaneously at the inlet and outlet of the control device. Quantify the emissions for the same organic HAP identified as present in the inlet gas stream for both the inlet and outlet gas streams of the control device.

(B) If you use EPA Method 18 of 40 CFR part 60, appendix A, to measure compliance with the emission concentration limit, you must first determine which organic HAP are present in the inlet gas stream using knowledge of the organic liquids or the screening procedure described in EPA Method 18. In conducting the performance test, analyze samples collected as specified in EPA Method 18 at the outlet of the control device. Quantify the control device outlet emission concentration for the same organic HAP identified as present in the inlet or uncontrolled gas stream.
(ii) You may use ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference, see § 63.14), as an alternative to EPA Method 18 if the target concentration is between 150 parts per billion by volume and 100 ppmv and either of the conditions specified in paragraph (b)(2)(ii)(A) or (B) of this section exists. For target compounds not listed in Section 1.1 of ASTM D6420-99 (Reapproved 2004) and not amenable to detection by mass spectrometry, you may not use ASTM D6420-99 (Reapproved 2004).

(A) The target compounds are those listed in Section 1.1 of ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference, see § 63.14); or

(B) For target compounds not listed in Section 1.1 of ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference, see § 63.14), but potentially detected by mass spectrometry, the additional system continuing calibration check after each run, as detailed in ASTM D6420-99 (Reapproved 2004), Section 10.5.3, must be followed, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water-soluble.

(4) If a principal component of the uncontrolled or inlet gas stream to the control device is formaldehyde, you may use EPA Method 316 of appendix A of this part instead of EPA Method 18 of 40 CFR part 60, appendix A, for measuring the formaldehyde. If formaldehyde is the predominant organic HAP in the inlet gas stream, you may use EPA Method 316 alone to measure formaldehyde either at the inlet and outlet of the control device using the formaldehyde control efficiency as a surrogate for total organic HAP or TOC efficiency, or at the outlet of a combustion device for determining compliance with the emission concentration limit.

(5) You may not conduct performance tests during periods of SSM, as specified in § 63.7(e)(1).

(c) To determine the HAP content of the organic liquid, you may use EPA Method 311 of 40 CFR part 63, appendix A, or other method approved by the Administrator. In addition, you may use other means, such as voluntary consensus standards, material safety data sheets (MSDS), or certified product data sheets, to determine the HAP content of the organic liquid. If the method you select to determine the HAP content provides HAP content ranges, you must use the upper end of each HAP content range in determining the total HAP content of the organic liquid. The EPA may require you to test the HAP content of an organic liquid using EPA Method 311 or other method approved by the Administrator. If the results of the EPA Method 311 (or any other approved method) are different from the HAP content determined by another means, the EPA Method 311 (or approved method) results will govern.


§ 63.2358  By what date must I conduct performance tests and other initial compliance demonstrations?

(a) You must conduct initial performance tests and design evaluations according to the schedule in § 63.7(a)(2), or by the compliance date specified in any applicable State or Federal new source review construction permit to which the affected source is already subject, whichever is earlier.

(b)(1) For storage tanks and transfer racks at existing affected sources complying with the emission limitations listed in Table 2 to this subpart, you must demonstrate initial compliance with the emission limitations within 180 days after February 5, 2007, except as provided in paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(i) For storage tanks with an existing internal or external floating roof, complying with item 1.a.ii. in Table 2 to this subpart and item 1.a. in Table 4 to this subpart, you must conduct your initial compliance demonstration the next time the storage tank is emptied and degassed, but not later than February 3, 2014.

(ii) For storage tanks complying with item 1.a.ii. or 6.a.ii in Table 2 of this subpart and item 1.b., 1.c., or 2. in Table 4 of this subpart, you must comply within 180 days after April 25, 2011.

(2) For storage tanks and transfer racks at reconstructed or new affected sources complying with the emission limitations listed in Table 2 to this subpart, you must conduct your initial compliance demonstration with the emission limitations within 180 days after the initial startup date for the affected source or February 3, 2004, whichever is later.
(c)(1) For storage tanks at existing affected sources complying with the work practice standard in Table 4 to this subpart, you must conduct your initial compliance demonstration as specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section.

(i) For storage tanks with an existing internal or external floating roof, complying with item 1.a. in Table 4 of this subpart, you must conduct your initial compliance demonstration the next time the storage tank is emptied and degassed, but not later than February 3, 2014.

(ii) For other storage tanks not specified in paragraph (c)(1)(i) of this section, you must comply within 180 days after April 25, 2011.

(2) For transfer racks and equipment leak components at existing affected sources complying with the work practice standards in Table 4 to this subpart, you must conduct your initial compliance demonstration within 180 days after February 5, 2007.

(d) For storage tanks, transfer racks, and equipment leak components at reconstructed or new affected sources complying with the work practice standards in Table 4 to this subpart, you must conduct your initial compliance demonstration within 180 days after the initial startup date for the affected source.


§ 63.2362  When must I conduct subsequent performance tests?

(a) For nonflare control devices, you must conduct subsequent performance testing required in Table 5 to this subpart, item 1, at any time the EPA requests you to in accordance with section 114 of the CAA.

(b)(1) For each transport vehicle that you own that is equipped with vapor collection equipment and that is loaded with organic liquids at a transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must perform the vapor tightness testing required in Table 5 to this subpart, item 2, on that transport vehicle at least once per year.

(2) For transport vehicles that you own that do not have vapor collection equipment, you must maintain current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.


§ 63.2366  What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain a CMS on each control device required in order to comply with this subpart. If you use a continuous parameter monitoring system (CPMS) (as defined in § 63.981), you must comply with the applicable requirements for CPMS in subpart SS of this part for the control device being used. If you use a continuous emissions monitoring system (CEMS), you must comply with the requirements in § 63.8.

(b) For nonflare control devices controlling storage tanks and low throughput transfer racks, you must submit a monitoring plan according to the requirements in subpart SS of this part for monitoring plans.

§ 63.2370  How do I demonstrate initial compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate initial compliance with each emission limitation and work practice standard that applies to you as specified in tables 6 and 7 to this subpart.

(b) You demonstrate initial compliance with the operating limits requirements specified in § 63.2346(e) by establishing the operating limits during the initial performance test or design evaluation.
(c) You must submit the results of the initial compliance determination in the Notification of Compliance Status according to the requirements in § 63.2382(d).


Continuous Compliance Requirements

§ 63.2374 When do I monitor and collect data to demonstrate continuous compliance and how do I use the collected data?

(a) You must monitor and collect data according to subpart SS of this part and paragraphs (b) and (c) of this section.

(b) When using a control device to comply with this subpart, you must monitor continuously or collect data at all required intervals at all times that the emission source and control device are in OLD operation, except for CMS malfunctions (including any malfunction preventing the CMS from operating properly), associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments).

(c) Do not use data recorded during CMS malfunctions, associated repairs, required quality assurance or control activities, or periods when emissions from organic liquids are not routed to the control device in data averages and calculations used to report emission or operating levels. Do not use such data in fulfilling a minimum data availability requirement, if applicable. You must use all of the data collected during any other periods, including periods of SSM, in assessing the operation of the control device.

§ 63.2378 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate continuous compliance with each emission limitation, operating limit, and work practice standard in Tables 2 through 4 to this subpart that applies to you according to the methods specified in subpart SS of this part and in tables 8 through 10 to this subpart, as applicable.

(b) You must follow the requirements in § 63.6(e)(1) and (3) during periods of startup, shutdown, malfunction, or nonoperation of the affected source or any part thereof. In addition, the provisions of paragraphs (b)(1) through (3) of this section apply.

(1) The emission limitations in this subpart apply at all times except during periods of nonoperation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. The emission limitations of this subpart apply during periods of SSM, except as provided in paragraphs (b)(2) and (3) of this section. However, if a SSM, or period of nonoperation of one portion of the affected source does not affect the ability of a particular emission source to comply with the emission limitations to which it is subject, then that emission source is still required to comply with the applicable emission limitations of this subpart during the startup, shutdown, malfunction, or period of nonoperation.

(2) The owner or operator must not shut down control devices or monitoring systems that are required or utilized for achieving compliance with this subpart during periods of SSM while emissions are being routed to such items of equipment if the shutdown would contravene requirements of this subpart applicable to such items of equipment. This paragraph (b)(2) does not apply if the item of equipment is malfunctioning. This paragraph (b)(2) also does not apply if the owner or operator shuts down the compliance equipment (other than monitoring systems) to avoid damage due to a contemporaneous SSM of the affected source or portion thereof. If the owner or operator has reason to believe that monitoring equipment would be damaged due to a contemporaneous SSM of the affected source or portion thereof, the owner or operator must provide documentation supporting such a claim in the next Compliance report required in table 11 to this subpart, item 1. Once approved by the Administrator, the provision for ceasing to collect, during a SSM, monitoring data that would otherwise be required by the provisions of this subpart must be incorporated into the SSM plan.

(3) During SSM, you must implement, to the extent reasonably available, measures to prevent or minimize excess emissions. For purposes of this paragraph (b)(3), the term “excess emissions” means emissions greater than those allowed by the emission limits that apply during normal operational periods. The measures to be taken must be
identified in the SSM plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available.

(c) Periods of planned routine maintenance of a control device used to control storage tanks or transfer racks, during which the control device does not meet the emission limits in table 2 to this subpart, must not exceed 240 hours per year.

(d) If you elect to route emissions from storage tanks or transfer racks to a fuel gas system or to a process, as allowed by § 63.982(d), to comply with the emission limits in table 2 to this subpart, the total aggregate amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except SSM or product changeovers of flexible operation units and periods when a storage tank has been emptied and degassed), must not exceed 240 hours.


Notifications, Reports, and Records

§ 63.2382 What notifications must I submit and when and what information should be submitted?

(a) You must submit each notification in subpart SS of this part, table 12 to this subpart, and paragraphs (b) through (d) of this section that applies to you. You must submit these notifications according to the schedule in table 12 to this subpart and as specified in paragraphs (b) through (d) of this section.

(b)(1) Initial Notification. If you startup your affected source before February 3, 2004, you must submit the Initial Notification no later than 120 calendar days after February 3, 2004.

(2) If you startup your new or reconstructed affected source on or after February 3, 2004, you must submit the Initial Notification no later than 120 days after initial startup.

(c) If you are required to conduct a performance test, you must submit the Notification of Intent to conduct the test at least 60 calendar days before it is initially scheduled to begin as required in § 63.7(b)(1).

(d)(1) Notification of Compliance Status. If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in table 5, 6, or 7 to this subpart, you must submit a Notification of Compliance Status.

(2) The Notification of Compliance Status must include the information required in § 63.999(b) and in paragraphs (d)(2)(i) through (viii) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify organic HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to tables 6 and 7 to this subpart. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) Descriptions of worst-case operating and/or testing conditions for the control device(s).

(v) Identification of emission sources subject to overlapping requirements described in § 63.2396 and the authority under which you will comply.
(vi) The applicable information specified in § 63.1039(a)(1) through (3) for all pumps and valves subject to the work practice standards for equipment leak components in table 4 to this subpart, item 4.

(vii) If you are complying with the vapor balancing work practice standard for transfer racks according to table 4 to this subpart, item 3.a, include a statement to that effect and a statement that the pressure vent settings on the affected storage tanks are greater than or equal to 2.5 psig.

(viii) The information specified in § 63.2386(c)(10)(i), unless the information has already been submitted with the first Compliance report. If the information specified in § 63.2386(c)(10)(i) has already been submitted with the first Compliance report, the information specified in § 63.2386(d)(3) and (4), as applicable, shall be submitted instead.


§ 63.2386 What reports must I submit and when and what information is to be submitted in each?

(a) You must submit each report in subpart SS of this part, Table 11 to this subpart, table 12 to this subpart, and in paragraphs (c) through (e) of this section 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 according to table 11 to this subpart and by the dates shown in paragraphs (b)(1) through (3) of this section, by the dates shown in subpart SS of this part, and by the dates shown in table 12 to this subpart, whichever are applicable.

(i)(i) The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.2342 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 affected source in § 63.2342.

(ii) The first Compliance report must be postmarked 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 § 63.2342.

(ii) 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.

(ii) Each subsequent Compliance report must be postmarked no later than July 31 or January 31, whichever date follows the first date following the end of the semiannual reporting period.

(3) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, 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) and (2) of this section.

(c) First Compliance report. The first Compliance report must contain the information specified in paragraphs (c)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(3) Date of report and beginning and ending dates of the reporting period.

(4) Any changes to the information listed in § 63.2382(d)(2) that have occurred since the submittal of the Notification of Compliance Status.
(5) If you had a SSM during the reporting period and you took actions consistent with your SSM plan, the Compliance report must include the information described in § 63.10(d)(5)(i).

(6) If there are no deviations from any emission limitation or operating limit that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations, operating limits, or work practice standards during the reporting period.

(7) If there were no periods during which the CMS 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.

(8) For closed vent systems and control devices used to control emissions, the information specified in paragraphs (c)(8)(i) and (ii) of this section for those planned routine maintenance activities that would require the control device to not meet the applicable emission limit.

(i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(ii) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description must include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the applicable emission limit due to planned routine maintenance.

(9) A listing of all transport vehicles into which organic liquids were loaded at transfer racks that are subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, during the previous 6 months for which vapor tightness documentation as required in § 63.2390(c) was not on file at the facility.

(10)(i) A listing of all transfer racks (except those racks at which only unloading of organic liquids occurs) and of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that are part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart.

(ii) If the information specified in paragraph (c)(10)(i) of this section has already been submitted with the Notification of Compliance Status, the information specified in paragraphs (d)(3) and (4) of this section, as applicable, shall be submitted instead.

(d) Subsequent Compliance reports. Subsequent Compliance reports must contain the information in paragraphs (c)(1) through (9) of this section and, where applicable, the information in paragraphs (d)(1)(i) through (4) of this section.

(1) For each deviation from an emission limitation occurring at an affected source where you are using a CMS to comply with an emission limitation in this subpart, you must include in the Compliance report the applicable information in paragraphs (d)(1)(i) through (xii) of this section. This includes periods of SSM.

(i) The date and time that each malfunction started and stopped.

(ii) The dates and times that each CMS was inoperative, except for zero (low-level) and high-level checks.

(iii) For each CMS that was out of control, the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of SSM, or during another period.

(v) A summary of the total duration of the deviations during the reporting period, and the total duration as a percentage of the total emission source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
(vii) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percentage of the total emission source operating time during that reporting period.

(viii) An identification of each organic HAP that was potentially emitted during each deviation based on the known organic HAP contained in the liquid(s).

(ix) A brief description of the emission source(s) at which the CMS deviation(s) occurred.

(x) A brief description of each CMS that was out of control during the period.

(xi) The date of the latest certification or audit for each CMS.

(xii) A brief description of any changes in CMS, processes, or controls since the last reporting period.

(2) Include in the Compliance report the information in paragraphs (d)(2)(i) through (iii) of this section, as applicable.

(i) For each storage tank and transfer rack subject to control requirements, include periods of planned routine maintenance during which the control device did not comply with the applicable emission limits in table 2 to this subpart.

(ii) For each storage tank controlled with a floating roof, include a copy of the inspection record (required in § 63.1065(b)) when inspection failures occur.

(iii) If you elect to use an extension for a floating roof inspection in accordance with § 63.1063(c)(2)(iv)(B) or (e)(2), include the documentation required by those paragraphs.

(3)(i) A listing of any storage tank that became subject to controls based on the criteria for control specified in table 2 to this subpart, items 1 through 6, since the filing of the last Compliance report.

(ii) A listing of any transfer rack that became subject to controls based on the criteria for control specified in table 2 to this subpart, items 7 through 10, since the filing of the last Compliance report.

(4)(i) A listing of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that became part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, since the last Compliance report.

(ii) A listing of all transfer racks (except those racks at which only the unloading of organic liquids occurs) that became part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, since the last Compliance report.

(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 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to table 11 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission limitation in this subpart, we will consider submission of the Compliance report as satisfying any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report will not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the applicable title V permitting authority.


§ 63.2390 What records must I keep?

(a) For each emission source identified in § 63.2338 that does not require control under this subpart, you must keep all records identified in § 63.2343.
(b) For each emission source identified in § 63.2338 that does require control under this subpart:

1. You must keep all records identified in subpart SS of this part and in table 12 to this subpart that are applicable, including records related to notifications and reports, SSM, performance tests, CMS, and performance evaluation plans; and

2. You must keep the records required to show continuous compliance, as required in subpart SS of this part and in tables 8 through 10 to this subpart, with each emission limitation, operating limit, and work practice standard that applies to you.

(c) For each transport vehicle into which organic liquids are loaded at a transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, you must keep the applicable records in paragraphs (c)(1) and (2) of this section or alternatively the verification records in paragraph (c)(3) of this section.

1. For transport vehicles equipped with vapor collection equipment, the documentation described in 40 CFR 60.505(b), except that the test title is: Transport Vehicle Pressure Test-EPA Reference Method 27.

2. For transport vehicles without vapor collection equipment, current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

3. In lieu of keeping the records specified in paragraph (c)(1) or (2) of this section, as applicable, the owner or operator shall record that the verification of U.S. DOT tank certification or Method 27 of appendix A to 40 CFR part 60 testing, required in table 5 to this subpart, item 2, has been performed. Various methods for the record of verification can be used, such as: A check-off on a log sheet, a list of U.S. DOT serial numbers or Method 27 data, or a position description for gate security showing that the security guard will not allow any trucks on site that do not have the appropriate documentation.

(d) You must keep records of the total actual annual facility-level organic liquid loading volume as defined in § 63.2406 through transfer racks to document the applicability, or lack thereof, of the emission limitations in table 2 to this subpart, items 7 through 10.

(e) An owner or operator who elects to comply with § 63.2346(a)(4) shall keep the records specified in paragraphs (e)(1) through (3) of this section.

1. A record of the U.S. DOT certification required by § 63.2346(a)(4)(ii).

2. A record of the pressure relief vent setting specified in § 63.2346(a)(4)(v).

3. If complying with § 63.2346(a)(4)(vi)(B), keep the records specified in paragraphs (e)(3)(i) and (ii) of this section.

(i) A record of the equipment to be used and the procedures to be followed when reloading the cargo tank or tank car and displacing vapors to the storage tank from which the liquid originates.

(ii) A record of each time the vapor balancing system is used to comply with § 63.2346(a)(4)(vi)(B).


§ 63.2394 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 inspection and review according to § 63.10(b)(1), including records stored in electronic form at a separate location.

(b) As specified in § 63.10(b)(1), you must keep your files of all information (including all reports and notifications) for at least 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 may keep the records off site for the remaining 3 years.


Other Requirements and Information

§ 63.2396 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

(a) Compliance with other regulations for storage tanks. (1) After the compliance dates specified in § 63.2342, you are in compliance with the provisions of this subpart for any storage tank that is assigned to the OLD affected source and that is both controlled with a floating roof and is in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that records shall be kept for 5 years rather than 2 years for storage tanks that are assigned to the OLD affected source.

(2) After the compliance dates specified in § 63.2342, you are in compliance with the provisions of this subpart for any storage tank with a fixed roof that is assigned to the OLD affected source and that is both controlled with a closed vent system and control device and is in compliance with either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart.

(3) As an alternative to paragraphs (a)(1) and (2) of this section, if a storage tank assigned to the OLD affected source is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to comply only with the requirements of this subpart for storage tanks meeting the applicability criteria for control in table 2 to this subpart.

(b) Compliance with other regulations for transfer racks. After the compliance dates specified in § 63.2342, if you have a transfer rack that is subject to 40 CFR part 61, subpart BB, and that transfer rack is in OLD operation, you must meet all of the requirements of this subpart for that transfer rack when the transfer rack is in OLD operation during the loading of organic liquids.

(c) Compliance with other regulations for equipment leak components. (1) After the compliance dates specified in § 63.2342, if you have pumps, valves, or sampling connections that are subject to a 40 CFR part 60 subpart, and those pumps, valves, and sampling connections are in OLD operation and in organic liquids service, as defined in this subpart, you must comply with the provisions of each subpart for those equipment leak components.

(2) After the compliance dates specified in § 63.2342, if you have pumps, valves, or sampling connections subject to 40 CFR part 63, subpart GGG, and those pumps, valves, and sampling connections are in OLD operation and in organic liquids service, as defined in this subpart, you may elect to comply with the provisions of this subpart for all such equipment leak components. You must identify in the Notification of Compliance Status required by § 63.2382(b) the provisions with which you will comply.

(d) [Reserved]

(e) Overlap with other regulations for monitoring, recordkeeping, and reporting —(1) Control devices. After the compliance dates specified in § 63.2342, if any control device subject to this subpart is also subject to monitoring, recordkeeping, and reporting requirements of another 40 CFR part 63 subpart, the owner or operator must be in compliance with the monitoring, recordkeeping, and reporting requirements of this subpart EEEE. If complying with the monitoring, recordkeeping, and reporting requirements of the other subpart satisfies the monitoring, recordkeeping, and reporting requirements of this subpart, the owner or operator may elect to continue to comply with the monitoring, recordkeeping, and reporting requirements of the other subpart. In such instances, the owner or operator will be deemed to be in compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. The owner or operator must identify the other subpart being complied with in the Notification of Compliance Status required by § 63.2382(b).
(2) **Equipment leak components.** After the compliance dates specified in §63.2342, if you are applying the applicable recordkeeping and reporting requirements of another 40 CFR part 63 subpart to the valves, pumps, and sampling connection systems associated with a transfer rack subject to this subpart that only unloads organic liquids directly to or via pipeline to a non-tank process unit component or to a storage tank subject to the other 40 CFR part 63 subpart, the owner or operator must be in compliance with the recordkeeping and reporting requirements of this subpart EEEE. If complying with the recordkeeping and reporting requirements of the other subpart satisfies the recordkeeping and reporting requirements of this subpart, the owner or operator may elect to continue to comply with the recordkeeping and reporting requirements of the other subpart. In such instances, the owner or operator will be deemed to be in compliance with the recordkeeping and reporting requirements of this subpart. The owner or operator must identify the other subpart being complied with in the Notification of Compliance Status required by §63.2382(b).


§ 63.2398 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.2402 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (U.S. EPA) or a delegated authority such as your State, local, or eligible tribal agency. If the EPA Administrator has delegated authority to your State, local, or eligible 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 (see list in §63.13) to find out if this subpart is delegated to your State, local, or eligible tribal agency.

(b) In delegating implementation and enforcement authority for this subpart to a State, local, or eligible tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the EPA Administrator and are not delegated to the State, local, or eligible tribal agency.

1. Approval of alternatives to the nonopacity emission limitations, operating limits, and work practice standards in §63.2346(a) through (c) under §63.6(g).

2. Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) 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.


§ 63.2406 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in §63.2, 40 CFR part 63, subparts H, PP, SS, TT, UU, and WW, and in this section. If the same term is defined in another subpart and in this section, it will have the meaning given in this section for purposes of this subpart. Notwithstanding the introductory language in §63.921, the terms “container” and “safety device” shall have the meaning found in this subpart and not in §63.921.

*Actual annual average temperature,* for organic liquids, means the temperature determined using the following methods:

1. For heated or cooled storage tanks, use the calculated annual average temperature of the stored organic liquid as determined from a design analysis of the storage tank.

2. For ambient temperature storage tanks:
(i) Use the annual average of the local (nearest) normal daily mean temperatures reported by the National Climatic Data Center; or

(ii) Use any other method that the EPA approves.

Annual average true vapor pressure means the equilibrium partial pressure exerted by the total table 1 organic HAP in the stored or transferred organic liquid. For the purpose of determining if a liquid meets the definition of an organic liquid, the vapor pressure is determined using standard conditions of 77 degrees F and 29.92 inches of mercury. For the purpose of determining whether an organic liquid meets the applicability criteria in table 2, items 1 through 6, to this subpart, use the actual annual average temperature as defined in this subpart. The vapor pressure value in either of these cases is determined:

1. In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss from External Floating-Roof Tanks (incorporated by reference, see § 63.14);

2. Using standard reference texts;

3. By the American Society for Testing and Materials Method D2879-83, 96 (incorporated by reference, see § 63.14); or

4. Using any other method that the EPA approves.

Bottoms receiver means a tank that collects distillation bottoms before the stream is sent for storage or for further processing downstream.

Cargo tank means a liquid-carrying tank permanently attached and forming an integral part of a motor vehicle or truck trailer. This term also refers to the entire cargo tank motor vehicle or trailer. For the purpose of this subpart, vacuum trucks used exclusively for maintenance or spill response are not considered cargo tanks.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapors from an emission point to a control device. This system does not include the vapor collection system that is part of some transport vehicles or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors.

Combustion device means an individual unit of equipment, such as a flare, oxidizer, catalytic oxidizer, process heater, or boiler, used for the combustion of organic emissions.

Container means a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include, but are not limited to, drums and portable cargo containers known as “portable tanks” or “totes.”

Control device means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this subpart. Such equipment or devices include, but are not limited to, absorbers, adsorbers, condensers, and combustion devices. Primary condensers, steam strippers, and fuel gas systems are not considered control devices.

Crude oil means any of the naturally occurring liquids commonly referred to as crude oil, regardless of specific physical properties. Only those crude oils downstream of the first point of custody transfer after the production field are considered crude oils in this subpart.

Custody transfer means the transfer of hydrocarbon liquids after processing and/or treatment in the producing operations, or from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

Design evaluation means a procedure for evaluating control devices that complies with the requirements in § 63.985(b)(1)(i).
Deviation means any instance in which an affected source subject to this subpart, or portion thereof, 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 SSM.

Emission limitation means an emission limit, opacity limit, operating limit, or visible emission limit.

Equipment leak component means each pump, valve, and sampling connection system used in organic liquids service at an OLD operation. Valve types include control, globe, gate, plug, and ball. Relief and check valves are excluded.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals (4.0 pounds per square inch absolute (psia)) or greater which is used as a fuel for internal combustion engines. Aviation gasoline is included in this definition.

High throughput transfer rack means those transfer racks that transfer into transport vehicles (for existing affected sources) or into transport vehicles and containers (for new affected sources) a total of 11.8 million liters per year or greater of organic liquids.

In organic liquids service means that an equipment leak component contains or contacts organic liquids having 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart.

Low throughput transfer rack means those transfer racks that transfer into transport vehicles (for existing affected sources) or into transport vehicles and containers (for new affected sources) less than 11.8 million liters per year of organic liquids.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source to which the records pertain, storage in central files elsewhere at the major source, or electronically available at the site.

Organic liquid means:

1. Any non-crude oil liquid or liquid mixture that contains 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart, as determined using the procedures specified in § 63.2354(c).

2. Any crude oils downstream of the first point of custody transfer.

3. Organic liquids for purposes of this subpart do not include the following liquids:

   i. Gasoline (including aviation gasoline), kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oils and fuel oils;

   ii. Any fuel consumed or dispensed on the plant site directly to users (such as fuels for fleet refueling or for refueling marine vessels that support the operation of the plant);

   iii. Hazardous waste;

   iv. Wastewater;
(v) Ballast water: or

(vi) Any non-crude oil liquid with an annual average true vapor pressure less than 0.7 kilopascals (0.1 psia).

**Organic liquids distribution (OLD) operation** means the combination of activities and equipment used to store or transfer organic liquids into, out of, or within a plant site regardless of the specific activity being performed. Activities include, but are not limited to, storage, transfer, blending, compounding, and packaging.

**Permitting authority** means one of the following:

(1) The State Air Pollution Control Agency, local agency, or other agency authorized by the EPA Administrator to carry out a permit program under 40 CFR part 70; or

(2) The EPA Administrator, in the case of EPA-implemented permit programs under title V of the CAA (42 U.S.C. 7661) and 40 CFR part 71.

**Plant site** means all contiguous or adjoining surface property that is under common control, including surface properties that are separated only by a road or other public right-of-way. Common control includes surface properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination.

**Research and development facility** means laboratory and pilot plant operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and which are not engaged in the manufacture of products for commercial sale, except in a *de minimis* manner.

**Responsible official** means responsible official as defined in 40 CFR 70.2 and 40 CFR 71.2, as applicable.

**Safety device** means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device that functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event.

**Shutdown** means the cessation of operation of an OLD affected source, or portion thereof (other than as part of normal operation of a batch-type operation), including equipment required or used to comply with this subpart, or the emptying and degassing of a storage tank. Shutdown as defined here includes, but is not limited to, events that result from periodic maintenance, replacement of equipment, or repair.

**Startup** means the setting in operation of an OLD affected source, or portion thereof (other than as part of normal operation of a batch-type operation), for any purpose. Startup also includes the placing in operation of any individual piece of equipment required or used to comply with this subpart including, but not limited to, control devices and monitors.

**Storage tank** means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, or reinforced plastic) that provide structural support and is designed to hold a bulk quantity of liquid. Storage tanks do not include:

(1) Units permanently attached to conveyances such as trucks, trailers, rail cars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Bottoms receivers;

(4) Surge control vessels;

(5) Vessels storing wastewater; or
(6) Reactor vessels associated with a manufacturing process unit.

Surge control vessel means feed drums, recycle drums, and intermediate vessels. Surge control vessels are used within chemical manufacturing processes when in-process storage, mixing, or management of flow rates or volumes is needed to assist in production of a product.

Tank car means a car designed to carry liquid freight by rail, and including a permanently attached tank.

Total actual annual facility-level organic liquid loading volume means the total facility-level actual volume of organic liquid loaded for transport within or out of the facility through transfer racks that are part of the affected source into transport vehicles (for existing affected sources) or into transport vehicles and containers (for new affected sources) based on a 3-year rolling average, calculated annually.

(1) For existing affected sources, each 3-year rolling average is based on actual facility-level loading volume during each calendar year (January 1 through December 31) in the 3-year period. For calendar year 2004 only (the first year of the initial 3-year rolling average), if an owner or operator of an affected source does not have actual loading volume data for the time period from January 1, 2004, through February 2, 2004 (the time period prior to the effective date of the OLD NESHAP), the owner or operator shall compute a facility-level loading volume for this time period as follows: At the end of the 2004 calendar year, the owner or operator shall calculate a daily average facility-level loading volume (based on the actual loading volume for February 3, 2004, through December 31, 2004) and use that daily average to estimate the facility-level loading volume for the period of time from January 1, 2004, through February 2, 2004. The owner or operator shall then sum the estimated facility-level loading volume from January 1, 2004, through February 2, 2004, and the actual facility-level loading volume from February 3, 2004, through December 31, 2004, to calculate the annual facility-level loading volume for calendar year 2004.

(2)(i) For new affected sources, the 3-year rolling average is calculated as an average of three 12-month periods. An owner or operator must select as the beginning calculation date with which to start the calculations as either the initial startup date of the new affected source or the first day of the calendar month following the month in which startup occurs. Once selected, the date with which the calculations begin cannot be changed.

(ii) The initial 3-year rolling average is based on the projected maximum facility-level annual loading volume for each of the 3 years following the selected beginning calculation date. The second 3-year rolling average is based on actual facility-level loading volume for the first year of operation plus a new projected maximum facility-level annual loading volume for second and third years following the selected beginning calculation date. The third 3-year rolling average is based on actual facility-level loading volume for the first 2 years of operation plus a new projected maximum annual facility-level loading volume for the third year following the beginning calculation date. Subsequent 3-year rolling averages are based on actual facility-level loading volume for each year in the 3-year rolling average.

Transfer rack means a single system used to load organic liquids into, or unload organic liquids out of, transport vehicles or containers. It includes all loading and unloading arms, pumps, meters, shutoff valves, relief valves, and other piping and equipment necessary for the transfer operation. Transfer equipment and operations that are physically separate (i.e., do not share common piping, valves, and other equipment) are considered to be separate transfer racks.

Transport vehicle means a cargo tank or tank car.

Vapor balancing system means:

(1) A piping system that collects organic HAP vapors displaced from transport vehicles or containers during loading and routes the collected vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header. For containers, the piping system must route the displaced vapors directly to the appropriate storage tank or to another storage tank connected to a common header in order to qualify as a vapor balancing system; or

(2) A piping system that collects organic HAP vapors displaced from the loading of a storage tank and routes the collected vapors to the transport vehicle from which the storage tank is filled.
Vapor collection system means any equipment located at the source (i.e., at the OLD operation) that is not open to the atmosphere; that is composed of piping, connections, and, if necessary, flow-inducing devices; and that is used for:

(1) Containing and conveying vapors displaced during the loading of transport vehicles to a control device;

(2) Containing and directly conveying vapors displaced during the loading of containers; or

(3) Vapor balancing. This does not include any of the vapor collection equipment that is installed on the transport vehicle.

Vapor-tight transport vehicle means a transport vehicle that has been demonstrated to be vapor-tight. To be considered vapor-tight, a transport vehicle equipped with vapor collection equipment must undergo a pressure change of no more than 250 pascals (1 inch of water) within 5 minutes after it is pressurized to 4,500 pascals (18 inches of water). This capability must be demonstrated annually using the procedures specified in EPA Method 27 of 40 CFR part 60, appendix A. For all other transport vehicles, vapor tightness is demonstrated by performing the U.S. DOT pressure test procedures for tank cars and cargo tanks.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.


Table 1 to Subpart EEEE of Part 63—Organic Hazardous Air Pollutants

Table: | Compound name | CAS No. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-D salts and esters</td>
<td>94-75-7</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>75-07-0</td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>75-05-8</td>
</tr>
<tr>
<td>Acetophenone</td>
<td>98-86-2</td>
</tr>
<tr>
<td>Acrolein</td>
<td>107-02-8</td>
</tr>
<tr>
<td>Acrylamide</td>
<td>79-06-1</td>
</tr>
<tr>
<td>Acrylic acid</td>
<td>79-10-7</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>107-13-1</td>
</tr>
<tr>
<td>Allyl chloride</td>
<td>107-05-1</td>
</tr>
<tr>
<td>Aniline</td>
<td>62-53-3</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
</tr>
<tr>
<td>Biphenyl</td>
<td>92-52-4</td>
</tr>
<tr>
<td>Butadiene (1,3-)</td>
<td>106-99-0</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>56-23-5</td>
</tr>
<tr>
<td>Chloroacetic acid</td>
<td>79-11-8</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>108-90-7</td>
</tr>
<tr>
<td>2-Chloro-1,3-butadiene (Chloroprene)</td>
<td>126-99-8</td>
</tr>
<tr>
<td>Chloroform</td>
<td>67-66-3</td>
</tr>
<tr>
<td>m-Cresol</td>
<td>108-39-4</td>
</tr>
<tr>
<td>o-Cresol</td>
<td>95-48-7</td>
</tr>
<tr>
<td>p-Cresol</td>
<td>106-44-5</td>
</tr>
<tr>
<td>Cresols/cresylic acid</td>
<td>1319-77-3</td>
</tr>
<tr>
<td>Compound name</td>
<td>CAS No.¹</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Cumene</td>
<td>98-82-8</td>
</tr>
<tr>
<td>Dibenzofurans</td>
<td>132-64-9</td>
</tr>
<tr>
<td>Dibutylphthalate</td>
<td>84-74-2</td>
</tr>
<tr>
<td>Dichloroethane (1,2-) (Ethylene dichloride) (EDC)</td>
<td>107-06-2</td>
</tr>
<tr>
<td>Dichloropropene (1,3-)</td>
<td>542-75-6</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>111-42-2</td>
</tr>
<tr>
<td>Diethyl aniline (N,N-)</td>
<td>121-69-7</td>
</tr>
<tr>
<td>Diethylene glycol monobutyl ether</td>
<td>112-34-5</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>111-77-3</td>
</tr>
<tr>
<td>Diethyl sulfate</td>
<td>64-67-5</td>
</tr>
<tr>
<td>Dimethyl formamide</td>
<td>68-12-2</td>
</tr>
<tr>
<td>Dimethylhydrazine (1,1-)</td>
<td>57-14-7</td>
</tr>
<tr>
<td>Dioxane (1,4-) (1,4-Diethyleneoxide)</td>
<td>123-91-1</td>
</tr>
<tr>
<td>Epichlorohydrin (1-Chloro-2,3-epoxypropane)</td>
<td>106-89-8</td>
</tr>
<tr>
<td>Epoxbutane (1,2-)</td>
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</tr>
<tr>
<td>Ethyl acrylate</td>
<td>140-88-5</td>
</tr>
<tr>
<td>Ethylenbenzene</td>
<td>100-41-4</td>
</tr>
<tr>
<td>Ethyl chloride (Chloroethane)</td>
<td>75-00-3</td>
</tr>
<tr>
<td>Ethylene dibromide (Dibromomethane)</td>
<td>106-93-4</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>107-21-1</td>
</tr>
<tr>
<td>Ethylene glycol dimethyl ether</td>
<td>110-71-4</td>
</tr>
<tr>
<td>Ethylene glycol monomethyl ether</td>
<td>109-86-4</td>
</tr>
<tr>
<td>Ethylene glycol monomethyl ether acetate</td>
<td>110-49-6</td>
</tr>
<tr>
<td>Ethylene glycol monophenyl ether</td>
<td>122-99-6</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>75-21-8</td>
</tr>
<tr>
<td>Ethylenedichloride (1,1-Dichloroethane)</td>
<td>75-34-3</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
</tr>
<tr>
<td>Hexachloroethane</td>
<td>67-72-1</td>
</tr>
<tr>
<td>Hexane</td>
<td>110-54-3</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>123-31-9</td>
</tr>
<tr>
<td>Isophorone</td>
<td>78-59-1</td>
</tr>
<tr>
<td>Maleic anhydride</td>
<td>108-31-6</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
</tr>
<tr>
<td>Methyl chloride (Chloromethane)</td>
<td>74-87-3</td>
</tr>
<tr>
<td>Methylene chloride (Dichloromethane)</td>
<td>75-09-2</td>
</tr>
<tr>
<td>Methyleneanilinilene (4,4')</td>
<td>101-77-9</td>
</tr>
<tr>
<td>Methylene diphenyl diisocyanate</td>
<td>101-68-8</td>
</tr>
<tr>
<td>Methyl hydrazine</td>
<td>60-34-4</td>
</tr>
<tr>
<td>Methyl isobutyl ketone (Hexone) (MIBK)</td>
<td>108-10-1</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>80-62-6</td>
</tr>
<tr>
<td>Methyl tert-butyl ether (MTBE)</td>
<td>1634-04-4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
</tr>
<tr>
<td>Nitrobenzene</td>
<td>98-95-3</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-9-52</td>
</tr>
<tr>
<td>Compound name</td>
<td>CAS No.</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Phthalic anhydride</td>
<td>85-44-9</td>
</tr>
<tr>
<td>Polycyclic organic matter</td>
<td>50-32-8</td>
</tr>
<tr>
<td>Propionaldehyde</td>
<td>123-38-6</td>
</tr>
<tr>
<td>Propylene dichloride (1,2-Dichloropropane)</td>
<td>78-87-5</td>
</tr>
<tr>
<td>Propylene oxide</td>
<td>75-56-9</td>
</tr>
<tr>
<td>Quinoline</td>
<td>91-22-5</td>
</tr>
<tr>
<td>Styrene</td>
<td>100-42-5</td>
</tr>
<tr>
<td>Styrene oxide</td>
<td>96-09-3</td>
</tr>
<tr>
<td>Tetrachloroethane (1,1,2,2-)</td>
<td>79-34-5</td>
</tr>
<tr>
<td>Tetrachloroethylene (Perchloroethylene)</td>
<td>127-18-4</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
</tr>
<tr>
<td>Toluene diisocyanate (2,4-)</td>
<td>584-84-9</td>
</tr>
<tr>
<td>o-Toluidine</td>
<td>95-53-4</td>
</tr>
<tr>
<td>Trichlorobenzene (1,2,4-)</td>
<td>120-82-1</td>
</tr>
<tr>
<td>Trichloroethane (1,1,1-) (Methyl chloroform)</td>
<td>71-55-6</td>
</tr>
<tr>
<td>Trichloroethane (1,1,2-) (Vinyl trichloride)</td>
<td>79-00-5</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>79-01-6</td>
</tr>
<tr>
<td>Triethylamine</td>
<td>121-44-8</td>
</tr>
<tr>
<td>Trimethylpentane (2,2,4-)</td>
<td>540-84-1</td>
</tr>
<tr>
<td>Vinyl acetate</td>
<td>108-05-4</td>
</tr>
<tr>
<td>Vinyl chloride (Chloroethylene)</td>
<td>75-01-4</td>
</tr>
<tr>
<td>Vinylidene chloride (1,1-Dichloroethylene)</td>
<td>75-35-4</td>
</tr>
<tr>
<td>Xylene (m-)</td>
<td>108-38-3</td>
</tr>
<tr>
<td>Xylene (o-)</td>
<td>95-47-6</td>
</tr>
<tr>
<td>Xylene (p-)</td>
<td>106-42-3</td>
</tr>
<tr>
<td>Xylenes (isomers and mixtures)</td>
<td>1330-20-7</td>
</tr>
</tbody>
</table>

1 CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.


**Table 2 to Subpart EEEE of Part 63—Emission Limits**

As stated in § 63.2346, you must comply with the emission limits for the organic liquids distribution emission sources as follows:

<table>
<thead>
<tr>
<th>If you own or operate . . .</th>
<th>And if . . .</th>
<th>Then you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A storage tank at an existing affected source with a capacity ≥18.9 cubic meters (5,000 gallons) and &lt;189.3 cubic meters (50,000 gallons).</td>
<td>a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥27.6 kilopascals (4.0 psia) and &lt;76.6 kilopascals (11.1 psia).</td>
<td>i. Reduce emissions of total organic HAP (or, upon approval, TOC) by at least 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS; OR</td>
</tr>
</tbody>
</table>
If you own or operate . . . | And if . . . | Then you must . . .
---|---|---
| b. The stored organic liquid is crude oil. | i. Comply with the work practice standards specified in table 4 to this subpart, items 1.a, 1.b, or 1.c for tanks storing liquids described in that table. | 
2. A storage tank at an existing affected source with a capacity ≥189.3 cubic meters (50,000 gallons). | a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is <76.6 kilopascals (11.1 psia). | i. See the requirement in item 1.a.i or 1.a.ii of this table. |
| b. The stored organic liquid is crude oil. | i. See the requirement in item 1.a.i or 1.a.ii of this table. | 
3. A storage tank at a reconstructed or new affected source with a capacity ≥18.9 cubic meters (5,000 gallons) and <37.9 cubic meters (10,000 gallons). | a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥27.6 kilopascals (4.0 psia) and <76.6 kilopascals (11.1 psia). | i. See the requirement in item 1.a.i or 1.a.ii of this table. |
| b. The stored organic liquid is crude oil. | i. See the requirement in item 1.a.i or 1.a.ii of this table. | 
4. A storage tank at a reconstructed or new affected source with a capacity ≥37.9 cubic meters (10,000 gallons) and <189.3 cubic meters (50,000 gallons). | a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥0.7 kilopascals (0.1 psia) and <76.6 kilopascals (11.1 psia). | i. See the requirement in item 1.a.i or 1.a.ii of this table. |
| b. The stored organic liquid is crude oil. | i. See the requirement in item 1.a.i or 1.a.ii of this table. | 
5. A storage tank at a reconstructed or new affected source with a capacity ≥189.3 cubic meters (50,000 gallons). | a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is <76.6 kilopascals (11.1 psia). | i. See the requirement in item 1.a.i or 1.a.ii of this table. |
| b. The stored organic liquid is crude oil. | i. See the requirement in item 1.a.i or 1.a.ii of this table. | 
6. A storage tank at an existing, reconstructed, or new affected source meeting the capacity criteria specified in table 2 of this subpart, items 1 through 5. | a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥76.6 kilopascals (11.1 psia). | i. Reduce emissions of total organic HAP (or, upon approval, TOC) by at least 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS; OR |
<table>
<thead>
<tr>
<th>If you own or operate . . .</th>
<th>And if . . .</th>
<th>Then you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. A transfer rack at an existing facility where the total annual facility-level organic liquid loading volume through transfer racks is equal to or greater than 800,000 gallons and less than 10 million gallons.</td>
<td>a. The total table 1 organic HAP content of the organic liquid being loaded through one or more of the transfer rack's arms is at least 98 percent by weight and is being loaded into a transport vehicle.</td>
<td>ii. Comply with the work practice standards specified in table 4 to this subpart, item 2.a, for tanks storing the liquids described in that table.</td>
</tr>
<tr>
<td></td>
<td>i. For all such loading arms at the rack, reduce emissions of total organic HAP (or, upon approval, TOC) from the loading of organic liquids either by venting the emissions that occur during loading through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS, achieving at least 98 weight-percent HAP reduction, OR, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air; OR</td>
<td></td>
</tr>
<tr>
<td>8. A transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks is ≥10 million gallons.</td>
<td>a. One or more of the transfer rack's arms is loading an organic liquid into a transport vehicle.</td>
<td>ii. During the loading of organic liquids, comply with the work practice standards specified in item 3 of table 4 to this subpart.</td>
</tr>
<tr>
<td></td>
<td>i. See the requirements in items 7.a.i and 7.a.ii of this table.</td>
<td></td>
</tr>
<tr>
<td>9. A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks is less than 800,000 gallons</td>
<td>a. The total Table 1 organic HAP content of the organic liquid being loaded through one or more of the transfer rack's arms is at least 25 percent by weight and is being loaded into a transport vehicle</td>
<td>i. See the requirements in items 7.a.i and 7.a.ii of this table.</td>
</tr>
<tr>
<td></td>
<td>b. One or more of the transfer rack's arms is filling a container with a capacity equal to or greater than 55 gallons</td>
<td>ii. For all such loading arms at the rack during the loading of organic liquids, comply with the provisions of §§ 63.924 through 63.927 of 40 CFR part 63, Subpart PP—National Emission Standards for Containers, Container Level 3 controls; OR</td>
</tr>
<tr>
<td></td>
<td>i. During the loading of organic liquids, comply with the work practice standards specified in item 3.a of Table 4 to this subpart.</td>
<td></td>
</tr>
<tr>
<td>10. A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks is equal to or greater than 800,000 gallons.</td>
<td>a. One or more of the transfer rack's arms is loading an organic liquid into a transport vehicle.</td>
<td>i. See the requirements in items 7.a.i and 7.a.ii of this table.</td>
</tr>
<tr>
<td></td>
<td>b. One or more of the transfer rack's arms is filling a container with a capacity equal to or greater than 55 gallons.</td>
<td>ii. During the loading of organic liquids, comply with the work practice standards specified in item 3.a of table 4 to this subpart.</td>
</tr>
</tbody>
</table>

Table 3 to Subpart EEEE of Part 63—Operating Limits—High Throughput Transfer Racks

As stated in § 63.2346(e), you must comply with the operating limits for existing, reconstructed, or new affected sources as follows:

<table>
<thead>
<tr>
<th>For each existing, each reconstructed, and each new affected source using . . .</th>
<th>You must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A thermal oxidizer to comply with an emission limit in table 2 to this subpart</td>
<td>Maintain the daily average fire box or combustion zone temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
</tr>
<tr>
<td>2. A catalytic oxidizer to comply with an emission limit in table 2 to this subpart</td>
<td>a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</td>
</tr>
<tr>
<td></td>
<td>b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</td>
</tr>
<tr>
<td></td>
<td>c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
</tr>
<tr>
<td>3. An absorber to comply with an emission limit in table 2 to this subpart</td>
<td>a. Maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR</td>
</tr>
<tr>
<td></td>
<td>b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</td>
</tr>
<tr>
<td></td>
<td>Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
</tr>
<tr>
<td>4. A condenser to comply with an emission limit in table 2 to this subpart</td>
<td>a. Maintain the daily average concentration level of organic compounds at the condenser exit less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR</td>
</tr>
<tr>
<td></td>
<td>b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
</tr>
<tr>
<td>5. An adsorption system with adsorbent regeneration to comply with an emission limit in table 2 to this subpart</td>
<td>a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR</td>
</tr>
<tr>
<td></td>
<td>b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</td>
</tr>
<tr>
<td></td>
<td>Before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</td>
</tr>
<tr>
<td></td>
<td>Achieve a pressure reduction during each adsorption bed regeneration cycle greater than or equal to the pressure reduction established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
</tr>
</tbody>
</table>
For each existing, each reconstructed, and each new affected source using . . . You must . . .

6. An adsorption system without adsorbent regeneration to comply with an emission limit in table 2 to this subpart
   a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
   b. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
   c. Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test.

7. A flare to comply with an emission limit in table 2 to this subpart
   a. Comply with the equipment and operating requirements in § 63.987(a); AND
   b. Conduct an initial flare compliance assessment in accordance with § 63.987(b); AND
   c. Install and operate monitoring equipment as specified in § 63.987(c).

8. Another type of control device to comply with an emission limit in table 2 to this subpart
   Submit a monitoring plan as specified in §§ 63.995(c) and 63.2366(b), and monitor the control device in accordance with that plan.


Table 4 to Subpart EEEE of Part 63—Work Practice Standards

As stated in § 63.2346, you may elect to comply with one of the work practice standards for existing, reconstructed, or new affected sources in the following table. If you elect to do so, . . .

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must . . .</th>
</tr>
</thead>
</table>
| 1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and organic HAP vapor pressure criteria specified in table 2 to this subpart, items 1 through 5 | a. Comply with the requirements of 40 CFR part 63, subpart WW (control level 2), if you elect to meet 40 CFR part 63, subpart WW (control level 2) requirements as an alternative to the emission limit in table 2 to this subpart, items 1 through 5; OR  
  b. Comply with the requirements of § 63.984 for routing emissions to a fuel gas system or back to a process; OR  
  c. Comply with the requirements of § 63.2346(a)(4) for vapor balancing emissions to the transport vehicle from which the storage tank is filled. |
| 2. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and organic HAP vapor pressure criteria specified in table 2 to this subpart, item 6 | a. Comply with the requirements of § 63.984 for routing emissions to a fuel gas system or back to a process; OR  
  b. Comply with the requirements of § 63.2346(a)(4) for vapor balancing emissions to the transport vehicle from which the storage tank is filled. |
| 3. Transfer rack subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source | a. If the option of a vapor balancing system is selected, install and, during the loading of organic liquids, operate a system that meets the requirements in table 7 to this subpart, item 3.b.i and item 3.b.ii, as applicable; OR  
  b. Comply with the requirements of § 63.984 during the loading of organic liquids, for routing emissions to a fuel gas system or back to a process. |
4. Pump, valve, and sampling connection that operates in organic liquids service at least 300 hours per year at an existing, reconstructed, or new affected source

**You must**

Comply with the requirements for pumps, valves, and sampling connections in 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H.

5. Transport vehicles equipped with vapor collection equipment that are loaded at transfer racks that are subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10

**You must**

Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles, and comply with the provisions in 40 CFR 60.502(f), (g), (h), and (i), except substitute the term transport vehicle at each occurrence of tank truck or gasoline tank truck in those paragraphs.

6. Transport vehicles equipped without vapor collection equipment that are loaded at transfer racks that are subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10

**You must**

Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR 180 (cargo tanks) or 49 CFR 173.31 (tank cars).

**[71 FR 42915, July 28, 2006]**

**Table 5 to Subpart EEEE of Part 63—Requirements for Performance Tests and Design Evaluations**

As stated in §§ 63.2354(a) and 63.2362, you must comply with the requirements for performance tests and design evaluations for existing, reconstructed, or new affected sources as follows:

<table>
<thead>
<tr>
<th>For . . .</th>
<th>You must conduct . . .</th>
<th>According to . . .</th>
<th>Using . . .</th>
<th>To determine . . .</th>
<th>According to the following requirements . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Each existing, each reconstructed, and each new affected source using a nonflare control device to comply with an emission limit in Table 2 to this subpart, items 1 through 10</td>
<td>a. A performance test to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, OR the exhaust concentration of each combustion device; OR</td>
<td>i. § 63.985(b)(1)(ii), § 63.988(b), § 63.990(b), or § 63.995(b)</td>
<td>(1) EPA Method 1 or 1A in appendix A-1 of 40 CFR part 60, as appropriate</td>
<td>(A) Sampling port locations and the required number of traverse points</td>
<td>(i) Sampling sites must be located at the inlet and outlet of each control device if complying with the control efficiency requirement or at the outlet of the control device if complying with the exhaust concentration requirement; AND (ii) the outlet sampling site must be located at each control device prior to any releases to the atmosphere.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2) EPA Method 2, 2A, 2C, 2D, or 2F in appendix A-1 of 40 CFR part 60, or EPA Method 2G in appendix A-2 of 40 CFR part 60, as appropriate</td>
<td>(A) Stack gas velocity and volumetric flow rate</td>
<td>See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.</td>
</tr>
<tr>
<td>For . . .</td>
<td>You must conduct . . .</td>
<td>According to . . .</td>
<td>Using . . .</td>
<td>To determine . . .</td>
<td>According to the following requirements . . .</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------</td>
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<td>-------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3) EPA Method 3 or 3B in appendix A-2 of 40 CFR part 60, as appropriate</td>
<td>(A) Concentration of CO₂ and O₂ and dry molecular weight of the stack gas</td>
<td>See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4) EPA Method 4 in appendix A-3 of 40 CFR part 60</td>
<td>(A) Moisture content of the stack gas</td>
<td>See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5) EPA Method 18 in appendix A-6 of 40 CFR part 60, or EPA Method 25 or 25A in appendix A-7 of 40 CFR part 60, as appropriate, or EPA Method 316 in appendix A of 40 CFR part 63 for measuring formaldehyde</td>
<td>(A) Total organic HAP (or, upon approval, TOC), or formaldehyde emissions</td>
<td>(i) The organic HAP used for the calibration gas for EPA Method 25A in appendix A-7 of 40 CFR part 60 must be the single organic HAP representing the largest percent by volume of emissions; AND (ii) During the performance test, you must establish the operating parameter limits within which total organic HAP (or, upon approval, TOC) emissions are reduced by the required weight-percent or, as an option for nonflare combustion devices, to 20 ppmv exhaust concentration.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. A design evaluation (for nonflare control devices) to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, or the exhaust concentration of each combustion control device</td>
<td>§ 63.985(b)(1)(i)</td>
<td></td>
<td>During a design evaluation, you must establish the operating parameter limits within which total organic HAP, (or, upon approval, TOC) emissions are reduced by at least 95 weight-percent for storage tanks or 98 weight-percent for transfer racks, or, as an option for nonflare combustion devices, to 20 ppmv exhaust concentration.</td>
<td></td>
</tr>
</tbody>
</table>
For . . . | You must conduct . . . | According to . . . | Using . . . | To determine . . . | According to the following requirements . . .
---|---|---|---|---|---
2. Each transport vehicle that you own that is equipped with vapor collection equipment and is loaded with organic liquids at a transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source | A performance test to determine the vapor tightness of the tank and then repair as needed until it passes the test. | [EPA Method 27 in appendix A of 40 CFR part 60](#) | Vapor tightness | The pressure change in the tank must be no more than 250 pascals (1 inch of water) in 5 minutes after it is pressurized to 4,500 pascals (18 inches of water). |

[71 FR 42916, July 28, 2006, as amended at 73 FR 21831, Apr. 23, 2008]

## Table 6 to Subpart EEEE of Part 63—Initial Compliance With Emission Limits

As stated in §§ 63.2370(a) and 63.2382(b), you must show initial compliance with the emission limits for existing, reconstructed, or new affected sources as follows:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>For the following emission limit . . .</th>
<th>You have demonstrated initial compliance if . . .</th>
</tr>
</thead>
</table>
1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6 | Reduce total organic HAP (or, upon approval, TOC) emissions by at least 95 weight-percent, or as an option for nonflare combustion devices to an exhaust concentration of ≤20 ppmv | Total organic HAP (or, upon approval, TOC) emissions, based on the results of the performance testing or design evaluation specified in Table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 95 weight-percent or as an option for nonflare combustion devices to an exhaust concentration ≤20 ppmv. |
2. Transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source | Reduce total organic HAP (or, upon approval, TOC) emissions from the loading of organic liquids by at least 98 weight-percent, or as an option for nonflare combustion devices to an exhaust concentration of ≤20 ppmv | Total organic HAP (or, upon approval, TOC) emissions from the loading of organic liquids, based on the results of the performance testing or design evaluation specified in table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 98 weight-percent or as an option for nonflare combustion devices to an exhaust concentration ≤20 ppmv. |

[71 FR 42918, July 28, 2006, as amended at 73 FR 21832, Apr. 23, 2008]
Table 7 to Subpart EEEE of Part 63—Initial Compliance With Work Practice Standards

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>If you . . .</th>
<th>You have demonstrated initial compliance if . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Storage tank at an existing affected source meeting either set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 or 2</td>
<td>a. Install a floating roof or equivalent control that meets the requirements in Table 4 to this subpart, item 1.a</td>
<td>i. After emptying and degassing, you visually inspect each internal floating roof before the refilling of the storage tank and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the refilling of the storage tank.</td>
</tr>
<tr>
<td></td>
<td>b. Route emissions to a fuel gas system or back to a process</td>
<td>i. You meet the requirements in § 63.984(b) and submit the statement of connection required by § 63.984(c).</td>
</tr>
<tr>
<td></td>
<td>c. Install and, during the filling of the storage tank with organic liquids, operate a vapor balancing system</td>
<td>i. You meet the requirements in § 63.2346(a)(4).</td>
</tr>
<tr>
<td>2. Storage tank at a reconstructed or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 3 through 5</td>
<td>a. Install a floating roof or equivalent control that meets the requirements in Table 4 to this subpart, item 1.a</td>
<td>i. You visually inspect each internal floating roof before the initial filling of the storage tank, and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the initial filling of the storage tank.</td>
</tr>
<tr>
<td></td>
<td>b. Route emissions to a fuel gas system or back to a process</td>
<td>i. See item 1.b.i of this table.</td>
</tr>
<tr>
<td></td>
<td>c. Install and, during the filling of the storage tank with organic liquids, operate a vapor balancing system</td>
<td>i. See item 1.c.i of this table.</td>
</tr>
<tr>
<td>3. Transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source</td>
<td>a. Load organic liquids only into transport vehicles having current vapor tightness certification as described in table 4 to this subpart, item 5 and item 6</td>
<td>i. You comply with the provisions specified in table 4 to this subpart, item 5 or item 6, as applicable.</td>
</tr>
<tr>
<td></td>
<td>b. Install and, during the loading of organic liquids, operate a vapor balancing system</td>
<td>i. You design and operate the vapor balancing system to route organic HAP vapors displaced from loading of organic liquids into transport vehicles to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header.</td>
</tr>
<tr>
<td></td>
<td>c. Route emissions to a fuel gas system or back to a process</td>
<td>i. You design and operate the vapor balancing system to route organic HAP vapors displaced from loading of organic liquids into containers directly (e.g., no intervening tank or containment area such as a room) to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header.</td>
</tr>
<tr>
<td>4. Equipment leak component, as defined in § 63.2406, that operates in organic liquids service ≥300 hours per year at an existing, reconstructed, or new affected source</td>
<td>a. Carry out a leak detection and repair program or equivalent control according to one of the subparts listed in table 4 to this subpart, item 4.a</td>
<td>i. You specify which one of the control programs listed in table 4 to this subpart you have selected, OR</td>
</tr>
<tr>
<td></td>
<td>c. Route emissions to a fuel gas system or back to a process</td>
<td>i. See item 1.b.i of this table.</td>
</tr>
<tr>
<td></td>
<td>ii. Provide written specifications for your equivalent control approach.</td>
<td></td>
</tr>
</tbody>
</table>
Table 8 to Subpart EEEE of Part 63—Continuous Compliance With Emission Limits

As stated in §§ 63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the emission limits for existing, reconstructed, or new affected sources according to the following table:

<table>
<thead>
<tr>
<th>For each existing, reconstructed, or new affected source</th>
<th>For the following emission limit</th>
<th>You must demonstrate continuous compliance by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in table 2 to this subpart, items 1 through 6</td>
<td>a. Reduce total organic HAP (or, upon approval, TOC) emissions from the closed vent system and control device by 95 weight-percent or greater, or as an option to 20 ppmv or less of total organic HAP (or, upon approval, TOC) in the exhaust of combustion devices</td>
<td>i. Performing CMS monitoring and collecting data according to §§ 63.2366, 63.2374, and 63.2378; AND ii. Maintaining the operating limits established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
</tr>
<tr>
<td>2. Transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source</td>
<td>a. Reduce total organic HAP (or, upon approval, TOC) emissions during the loading of organic liquids from the closed vent system and control device by 98 weight-percent or greater, or as an option to 20 ppmv or less of total organic HAP (or, upon approval, TOC) in the exhaust of combustion devices</td>
<td>i. Performing CMS monitoring and collecting data according to §§ 63.2366, 63.2374, and 63.2378 during the loading of organic liquids; AND ii. Maintaining the operating limits established during the design evaluation or performance test that demonstrated compliance with the emission limit during the loading of organic liquids.</td>
</tr>
</tbody>
</table>

Table 9 to Subpart EEEE of Part 63—Continuous Compliance With Operating Limits—High Throughput Transfer Racks

As stated in §§ 63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:

<table>
<thead>
<tr>
<th>For each existing, reconstructed, and each new affected source using</th>
<th>For the following operating limit</th>
<th>You must demonstrate continuous compliance by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A thermal oxidizer to comply with an emission limit in table 2 to this subpart.</td>
<td>a. Maintain the daily average fire box or combustion zone, as applicable, temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
<td>i. Continuously monitoring and recording fire box or combustion zone, as applicable, temperature every 15 minutes and maintaining the daily average fire box temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td>For each existing, reconstructed, and each new affected source using . . .</td>
<td>For the following operating limit . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2. A catalytic oxidizer to comply with an emission limit in table 2 to this subpart.</td>
<td>a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</td>
<td>i. Replacing the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td></td>
<td>b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</td>
<td>i. Continuously monitoring and recording the temperature at the inlet of the catalyst bed at least every 15 minutes and maintaining the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td></td>
<td>c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
<td>i. Continuously monitoring and recording the temperature at the outlet of the catalyst bed every 15 minutes and maintaining the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td>3. An absorber to comply with an emission limit in table 2 to this subpart.</td>
<td>a. Maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR</td>
<td>i. Continuously monitoring the organic concentration in the absorber exhaust and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td></td>
<td>b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
<td>i. Continuously monitoring the scrubbing liquid temperature and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Maintaining the difference between the specific gravities greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iii. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td>For each existing, reconstructed, and each new affected source using . . .</td>
<td>For the following operating limit . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>4. A condenser to comply with an emission limit in table 2 to this subpart.</td>
<td>a. Maintain the daily average concentration level of organic compounds at the exit of the condenser less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR</td>
<td>i. Continuously monitoring the organic concentration at the condenser exit and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td></td>
<td>b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
<td></td>
</tr>
<tr>
<td>5. An adsorption system with adsorbent regeneration to comply with an emission limit in table 2 to this subpart.</td>
<td>a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR</td>
<td>i. Continuously monitoring the daily average organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td></td>
<td>b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test; AND Achieve greater than or equal to the pressure reduction during the adsorption bed regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
<td>i. Maintaining the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Maintaining the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iii. Achieving greater than or equal to the pressure reduction during the regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iv. Keeping the applicable records required in § 63.998.</td>
</tr>
<tr>
<td>For each existing, reconstructed, and each new affected source using . . .</td>
<td>For the following operating limit . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>6. An adsorption system without adsorbent regeneration to comply with an emission limit in table 2 to this subpart.</td>
<td>a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR</td>
<td>i. Continuously monitoring the organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.</td>
</tr>
<tr>
<td></td>
<td>b. Replace the existing adsorbent in each segment of the bed before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.</td>
<td>i. Replacing the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Maintaining the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iii. Keeping the applicable records required in §63.998.</td>
</tr>
<tr>
<td>7. A flare to comply with an emission limit in table 2 to this subpart.</td>
<td>a. Maintain a pilot flame in the flare at all times that vapors may be vented to the flare (§63.11(b)(5)); AND</td>
<td>i. Continuously operating a device that detects the presence of the pilot flame; AND ii. Keeping the applicable records required in §63.998.</td>
</tr>
<tr>
<td></td>
<td>b. Maintain a flare flame at all times that vapors are being vented to the flare (§63.11(b)(5)); AND</td>
<td>i. Maintaining a flare flame at all times that vapors are being vented to the flare; AND ii. Keeping the applicable records required in §63.998.</td>
</tr>
<tr>
<td></td>
<td>c. Operate the flare with no visible emissions, except for up to 5 minutes in any 2 consecutive hours (§63.11(b)(4)); AND EITHER</td>
<td>i. Operating the flare with no visible emissions exceeding the amount allowed; AND ii. Keeping the applicable records required in §63.998.</td>
</tr>
<tr>
<td></td>
<td>d.1. Operate the flare with an exit velocity that is within the applicable limits in §63.11(b)(7) and (8) and with a net heating value of the gas being combusted greater than the applicable minimum value in §63.11(b)(6)(ii); OR</td>
<td>i. Operating the flare within the applicable exit velocity limits; AND ii. Operating the flare with the gas heating value greater than the applicable minimum value; AND iii. Keeping the applicable records required in §63.998.</td>
</tr>
<tr>
<td></td>
<td>d.2. Adhere to the requirements in §63.11(b)(6)(i).</td>
<td>i. Operating the flare within the applicable limits in 63.11(b)(6)(i); AND ii. Keeping the applicable records required in §63.998.</td>
</tr>
<tr>
<td>8. Another type of control device to comply with an emission limit in table 2 to this subpart.</td>
<td>Submit a monitoring plan as specified in §§63.995(c) and 63.2366(c), and monitor the control device in accordance with that plan.</td>
<td>Submitting a monitoring plan and monitoring the control device according to that plan.</td>
</tr>
</tbody>
</table>
Table 10 to Subpart EEEE of Part 63—Continuous Compliance With Work Practice Standards

As stated in §§ 63.2378(a) and (b) and 63.2386(c)(6), you must show continuous compliance with the work practice standards for existing, reconstructed, or new affected sources according to the following table:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>For the following standard . . .</th>
<th>You must demonstrate continuous compliance by . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internal floating roof (IFR) storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity, and vapor pressure criteria specified in table 2 to this subpart, items 1 through 5.</td>
<td>a. Install a floating roof designed and operated according to the applicable specifications in § 63.1063(a) and (b).</td>
<td>i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR once per year (§ 63.1063(d)(2)); AND ii. Visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR either each time the storage tank is completely emptied and degassed or every 10 years, whichever occurs first (§ 63.1063(c)(1), (d)(1), and (e)); AND iii. Keeping the tank records required in § 63.1065.</td>
</tr>
<tr>
<td>2. External floating roof (EFR) storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and vapor pressure criteria specified in table 2 to this subpart, items 1 through 5.</td>
<td>a. Install a floating roof designed and operated according to the applicable specifications in § 63.1063(a) and (b).</td>
<td>i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each EFR either each time the storage tank is completely emptied and degassed or every 10 years, whichever occurs first (§ 63.1063(c)(2), (d), and (e)); AND ii. Performing seal gap measurements on the secondary seal of each EFR at least once every year, and on the primary seal of each EFR at least every 5 years (§ 63.1063(c)(2), (d), and (e)); AND iii. Keeping the tank records required in § 63.1065.</td>
</tr>
<tr>
<td>3. IFR or EFR tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and vapor pressure criteria specified in table 2 to this subpart, items 1 through 5.</td>
<td>a. Repair the conditions causing storage tank inspection failures (§ 63.1063(e)).</td>
<td>i. Repairing conditions causing inspection failures: before refilling the storage tank with organic liquid, or within 45 days (or up to 105 days with extensions) for a tank containing organic liquid; AND ii. Keeping the tank records required in § 63.1065(b).</td>
</tr>
<tr>
<td>4. Transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source.</td>
<td>a. Ensure that organic liquids are loaded into transport vehicles in accordance with the requirements in table 4 to this subpart, items 5 or 6, as applicable.</td>
<td>i. Ensuring that organic liquids are loaded into transport vehicles in accordance with the requirements in table 4 to this subpart, items 5 or 6, as applicable.</td>
</tr>
<tr>
<td></td>
<td>b. Install and, during the loading of organic liquids, operate a vapor balancing system.</td>
<td>i. Monitoring each potential source of vapor leakage in the system quarterly during the loading of a transport vehicle or the filling of a container using the methods and procedures described in the rule requirements selected for the work practice standard for equipment leak components as specified in table 4 to this subpart, item 4. An instrument reading of 500 ppmv defines a leak. Repair of leaks is performed according to the repair requirements specified in your selected equipment leak standards.</td>
</tr>
<tr>
<td></td>
<td>c. Route emissions to a fuel gas system or back to a process.</td>
<td>i. Continuing to meet the requirements specified in § 63.984(b).</td>
</tr>
</tbody>
</table>
For each . . .

5. Equipment leak component, as defined in § 63.2406, that operates in organic liquids service at least 300 hours per year.

<table>
<thead>
<tr>
<th>For the following standard . . .</th>
<th>You must demonstrate continuous compliance by . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Comply with the requirements of 40 CFR part 63, subpart TT, UU, or H.</td>
<td>i. Carrying out a leak detection and repair program in accordance with the subpart selected from the list in item 5.a of this table.</td>
</tr>
</tbody>
</table>

6. Storage tank at an existing, reconstructed, or new affected source meeting any of the tank capacity and vapor pressure criteria specified in table 2 to this subpart, items 1 through 6.

<table>
<thead>
<tr>
<th>a. Route emissions to a fuel gas system or back to the process.</th>
<th>i. Continuing to meet the requirements specified in § 63.984(b).</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Install and, during the filling of the storage tank with organic liquids, operate a vapor balancing system.</td>
<td>i. Except for pressure relief devices, monitoring each potential source of vapor leakage in the system, including, but not limited to pumps, valves, and sampling connections, quarterly during the loading of a storage tank using the methods and procedures described in the rule requirements selected for the work practice standard for equipment leak components as specified in Table 4 to this subpart, item 4. An instrument reading of 500 ppmv defines a leak. Repair of leaks is performed according to the repair requirements specified in your selected equipment leak standards. For pressure relief devices, comply with § 63.2346(a)(4)(v). If no loading of a storage tank occurs during a quarter, then monitoring of the vapor balancing system is not required.</td>
</tr>
</tbody>
</table>


Table 11 to Subpart EEEE of Part 63—Requirements for Reports

As stated in § 63.2386(a), (b), and (f), you must submit compliance reports and startup, shutdown, and malfunction reports according to the following table:

<table>
<thead>
<tr>
<th>You must submit a(n) . . .</th>
<th>The report must contain . . .</th>
<th>You must submit the report . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compliance report or Periodic Report</td>
<td>a. The information specified in § 63.2386(c), (d), (e). If you had a SSM during the reporting period and you took actions consistent with your SSM plan, the report must also include the information in § 63.10(d)(5)(i); AND</td>
<td>Semiannually, and it must be postmarked by January 31 or July 31, in accordance with § 63.2386(b).</td>
</tr>
<tr>
<td></td>
<td>b. The information required by 40 CFR part 63, subpart TT, UU, or H, as applicable, for pumps, valves, and sampling connections; AND</td>
<td>See the submission requirement in item 1.a of this table.</td>
</tr>
<tr>
<td></td>
<td>c. The information required by § 63.999(c); AND</td>
<td>See the submission requirement in item 1.a of this table.</td>
</tr>
<tr>
<td></td>
<td>d. The information specified in § 63.1066(b) including: Notification of inspection, inspection results, requests for alternate devices, and requests for extensions, as applicable.</td>
<td>See the submission requirement in item 1.a. of this table.</td>
</tr>
</tbody>
</table>
You must submit a(n) . . .  

<table>
<thead>
<tr>
<th>The report must contain . . .</th>
<th>You must submit the report . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Immediate SSM report if you had a SSM that resulted in an applicable emission standard in the relevant standard being exceeded, and you took an action that was not consistent with your SSM plan</td>
<td>i. The information required in § 63.10(d)(5)(ii)</td>
</tr>
<tr>
<td>i. 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)).</td>
<td></td>
</tr>
</tbody>
</table>

[71 FR 42923, July 28, 2006]

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE

As stated in §§ 63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:

<table>
<thead>
<tr>
<th>Citation</th>
<th>Subject</th>
<th>Brief description</th>
<th>Applies to subpart EEEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 63.1</td>
<td>Applicability</td>
<td>Initial applicability determination; Applicability after standard established; Permit requirements; Extensions, Notifications</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.2</td>
<td>Definitions</td>
<td>Definitions for part 63 standards</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.3</td>
<td>Units and Abbreviations</td>
<td>Units and abbreviations for part 63 standards</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.4</td>
<td>Prohibited Activities and Circumvention</td>
<td>Prohibited activities; Circumvention, Severability</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.5</td>
<td>Construction/Reconstruction</td>
<td>Applicability; Applications; Approvals</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(a)</td>
<td>Compliance with Standards/O&amp;M Applicability</td>
<td>GP apply unless compliance extension; GP apply to area sources that become major</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(b)(1)-(4)</td>
<td>Compliance Dates for New and Reconstructed Sources</td>
<td>Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for section 112(f)</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(b)(5)</td>
<td>Notification</td>
<td>Must notify if commenced construction or reconstruction after proposal</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(b)(6)</td>
<td>[Reserved].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(b)(7)</td>
<td>Compliance Dates for New and Reconstructed Area Sources That Become Major</td>
<td>Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(c)(1)-(2)</td>
<td>Compliance Dates for Existing Sources</td>
<td>Comply according to date in this subpart, which must be no later than 3 years after effective date; for section 112(f) standards, comply within 90 days of effective date unless compliance extension</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(c)(3)-(4)</td>
<td>[Reserved].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart EEEE</td>
</tr>
<tr>
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<td>-------------------------</td>
</tr>
<tr>
<td>§ 63.6(c)(5)</td>
<td>Compliance Dates for Existing Area Sources That Become Major</td>
<td>Area sources that become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(d)</td>
<td>[Reserved].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(e)(1)</td>
<td>Operation &amp; Maintenance</td>
<td>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</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(e)(2)</td>
<td>[Reserved].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(e)(3)</td>
<td>SSM Plan</td>
<td>Requirement for SSM plan; content of SSM plan; actions during SSM</td>
<td>Yes; however, (1) the 2-day reporting requirement in paragraph § 63.6(e)(3)(iv) does not apply and (2) § 63.6(e)(3) does not apply to emissions sources not requiring control.</td>
</tr>
<tr>
<td>§ 63.6(f)(1)</td>
<td>Compliance Except During SSM</td>
<td>You must comply with emission standards at all times except during SSM</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(f)(2)-(3)</td>
<td>Methods for Determining Compliance</td>
<td>Compliance based on performance test, operation and maintenance plans, records, inspection</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(g)(1)-(3)</td>
<td>Alternative Standard</td>
<td>Procedures for getting an alternative standard</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(h)</td>
<td>Opacity/Visible Emission Standards</td>
<td>Requirements for compliance with opacity and visible emission standards</td>
<td>No; except as it applies to flares for which Method 22 observations are required as part of a flare compliance assessment.</td>
</tr>
<tr>
<td>§ 63.6(i)(1)-(14)</td>
<td>Compliance Extension</td>
<td>Procedures and criteria for Administrator to grant compliance extension</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(j)</td>
<td>Presidential Compliance Exemption</td>
<td>President may exempt any source from requirement to comply with this subpart</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(a)(2)</td>
<td>Performance Test Dates</td>
<td>Dates for conducting initial performance testing; must conduct 180 days after compliance date</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(a)(3)</td>
<td>Section 114 Authority</td>
<td>Administrator may require a performance test under CAA section 114 at any time</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(b)(1)</td>
<td>Notification of Performance Test</td>
<td>Must notify Administrator 60 days before the test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(b)(2)</td>
<td>Notification of Rescheduling</td>
<td>If you have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart EEEE</td>
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</tr>
<tr>
<td>§ 63.7(c)</td>
<td>Quality Assurance (QA)/Test Plan</td>
<td>Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing</td>
<td>Yes</td>
</tr>
<tr>
<td>§ 63.7(d)</td>
<td>Testing Facilities</td>
<td>Requirements for testing facilities</td>
<td>Yes</td>
</tr>
<tr>
<td>§ 63.7(e)(1)</td>
<td>Conditions for Conducting Performance Tests</td>
<td>Performance tests must be conducted under representative conditions; cannot conduct performance tests during SSM</td>
<td>Yes</td>
</tr>
<tr>
<td>§ 63.7(e)(2)</td>
<td>Conditions for Conducting Performance Tests</td>
<td>Must conduct according to this subpart and EPA test methods unless Administrator approves alternative</td>
<td>Yes</td>
</tr>
<tr>
<td>§ 63.7(e)(3)</td>
<td>Test Run Duration</td>
<td>Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used</td>
<td>Yes; however, for transfer racks per §§ 63.987(b)(3)(i)(A)-(B) and 63.997(e)(1)(v)(A)-(B) provide exceptions to the requirement for test runs to be at least 1 hour each.</td>
</tr>
<tr>
<td>§ 63.7(f)</td>
<td>Alternative Test Method</td>
<td>Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method</td>
<td>Yes</td>
</tr>
<tr>
<td>§ 63.7(g)</td>
<td>Performance Test Data Analysis</td>
<td>Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years</td>
<td>Yes; however, performance test data is to be submitted with the Notification of Compliance Status according to the schedule specified in § 63.9(h)(1)-(6) below.</td>
</tr>
<tr>
<td>§ 63.7(h)</td>
<td>Waiver of Tests</td>
<td>Procedures for Administrator to waive performance test</td>
<td>Yes</td>
</tr>
<tr>
<td>§ 63.8(a)(1)</td>
<td>Applicability of Monitoring Requirements</td>
<td>Subject to all monitoring requirements in standard</td>
<td>Yes</td>
</tr>
<tr>
<td>§ 63.8(a)(2)</td>
<td>Performance Specifications</td>
<td>Performance Specifications in appendix B of 40 CFR part 60 apply</td>
<td>Yes</td>
</tr>
<tr>
<td>§ 63.8(a)(3)</td>
<td>[Reserved].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.8(a)(4)</td>
<td>Monitoring of Flares</td>
<td>Monitoring requirements for flares in § 63.11</td>
<td>Yes; however, monitoring requirements in § 63.987(c) also apply.</td>
</tr>
<tr>
<td>§ 63.8(b)(1)</td>
<td>Monitoring</td>
<td>Must conduct monitoring according to standard unless Administrator approves alternative</td>
<td>Yes</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart EEEE</td>
</tr>
<tr>
<td>------------------</td>
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</tr>
<tr>
<td>§ 63.8(b)(2)-(3)</td>
<td>Multiple Effluents and Multiple Monitoring Systems</td>
<td>Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(c)(1)</td>
<td>Monitoring System Operation and Maintenance</td>
<td>Maintain monitoring system in a manner consistent with good air pollution control practices</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(c)(1)(i)-(iii)</td>
<td>Routine and Predictable SSM</td>
<td>Keep parts for routine repairs readily available; reporting requirements for SSM when action is described in SSM plan.</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(c)(2)-(3)</td>
<td>Monitoring System Installation</td>
<td>Must install to get representative emission or parameter measurements; must verify operational status before or at performance test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(c)(4)</td>
<td>CMS Requirements</td>
<td>CMS must be operating except during breakdown, out-of control, repair, maintenance, and high-level calibration drifts; COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period; CEMS must have a minimum of one cycle of operation for each successive 15-minute period</td>
<td>Yes; however, COMS are not applicable.</td>
</tr>
<tr>
<td>§ 63.8(c)(5)</td>
<td>COMS Minimum Procedures</td>
<td>COMS minimum procedures</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(c)(6)-(8)</td>
<td>CMS Requirements</td>
<td>Zero and high level calibration check requirements. Out-of-control periods</td>
<td>Yes, but only applies for CEMS. 40 CFR part 63, subpart SS provides requirements for CPMS.</td>
</tr>
<tr>
<td>§ 63.8(d)</td>
<td>CMS Quality Control</td>
<td>Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions</td>
<td>Yes, but only applies for CEMS. 40 CFR part 63, subpart SS provides requirements for CPMS.</td>
</tr>
<tr>
<td>§ 63.8(e)</td>
<td>CMS Performance Evaluation</td>
<td>Notification, performance evaluation test plan, reports</td>
<td>Yes, but only applies for CEMS.</td>
</tr>
<tr>
<td>§ 63.8(f)(1)-(5)</td>
<td>Alternative Monitoring Method</td>
<td>Procedures for Administrator to approve alternative monitoring</td>
<td>Yes, but 40 CFR part 63, subpart SS also provides procedures for approval of CPMS.</td>
</tr>
<tr>
<td>§ 63.8(f)(6)</td>
<td>Alternative to Relative Accuracy Test</td>
<td>Procedures for Administrator to approve alternative relative accuracy tests for CEMS</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart EEEE</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>§ 63.8(g)</td>
<td>Data Reduction</td>
<td>COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average</td>
<td>Yes; however, COMS are not applicable.</td>
</tr>
<tr>
<td>§ 63.9(a)</td>
<td>Notification Requirements</td>
<td>Applicability and State delegation</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(b)(1)-(2), (4)-(5)</td>
<td>Initial Notifications</td>
<td>Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(c)</td>
<td>Request for Compliance Extension</td>
<td>Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate (BACT/LAER)</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(d)</td>
<td>Notification of Special Compliance Requirements for New Sources</td>
<td>For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(e)</td>
<td>Notification of Performance Test</td>
<td>Notify Administrator 60 days prior</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(f)</td>
<td>Notification of VE/Opacity Test</td>
<td>Notify Administrator 30 days prior</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.9(g)</td>
<td>Additional Notifications When Using CMS</td>
<td>Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative</td>
<td>Yes; however, there are no opacity standards.</td>
</tr>
<tr>
<td>§ 63.9(h)(1)-(6)</td>
<td>Notification of Compliance Status</td>
<td>Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/visible emissions, which are due 30 days after; when to submit to Federal vs. State authority</td>
<td>Yes; however, (1) there are no opacity standards and (2) all initial Notification of Compliance Status, including all performance test data, are to be submitted at the same time, either within 240 days after the compliance date or within 60 days after the last performance test demonstrating compliance has been completed, whichever occurs first.</td>
</tr>
<tr>
<td>§ 63.9(i)</td>
<td>Adjustment of Submittal Deadlines</td>
<td>Procedures for Administrator to approve change in when notifications must be submitted</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(j)</td>
<td>Change in Previous Information</td>
<td>Must submit within 15 days after the change</td>
<td>No. These changes will be reported in the first and subsequent compliance reports.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart EEEE</td>
</tr>
<tr>
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</tr>
<tr>
<td>§ 63.10(a)</td>
<td>Recordkeeping/Reporting</td>
<td>Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(1)</td>
<td>Recordkeeping/Reporting</td>
<td>General requirements; keep all records readily available; keep for 5 years</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(i)-(iv)</td>
<td>Records Related to Startup, Shutdown, and Malfunction</td>
<td>Occurrence of each for operations (process equipment); occurrence of each malfunction of air pollution control equipment; maintenance on air pollution control equipment; actions during SSM</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(vi)-(xi)</td>
<td>CMS Records</td>
<td>Malfunctions, inoperative, out-of-control periods</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xii)</td>
<td>Records</td>
<td>Records when under waiver</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xiii)</td>
<td>Records</td>
<td>Records when using alternative to relative accuracy test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xiv)</td>
<td>Records</td>
<td>All documentation supporting initial notification and notification of compliance status</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(3)</td>
<td>Records</td>
<td>Applicability determinations</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(c)</td>
<td>Records</td>
<td>Additional records for CMS</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(d)(1)</td>
<td>General Reporting Requirements</td>
<td>Requirement to report</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(d)(2)</td>
<td>Report of Performance Test Results</td>
<td>When to submit to Federal or State authority</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(d)(3)</td>
<td>Reporting Opacity or VE Observations</td>
<td>What to report and when</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(d)(4)</td>
<td>Progress Reports</td>
<td>Must submit progress reports on schedule if under compliance extension</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(d)(5)</td>
<td>SSM Reports</td>
<td>Contents and submission</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(e)(1)-(2)</td>
<td>Additional CMS Reports</td>
<td>Must report results for each CEMS on a unit; written copy of CMS performance evaluation; 2-3 copies of COMS performance evaluation</td>
<td>Yes; however, COMS are not applicable.</td>
</tr>
<tr>
<td>§ 63.10(e)(3)(i)-(iii)</td>
<td>Reports</td>
<td>Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations)</td>
<td>Yes; however, note that the title of the report is the compliance report; deviations include excess emissions and parameter exceedances.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart EEEE</td>
</tr>
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</tr>
<tr>
<td>§ 63.10(e)(3)(iv)-(v)</td>
<td>Excess Emissions Reports</td>
<td>Requirement to revert to quarterly submission if there is an excess emissions or parameter monitoring exceedance (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(e)(3)(vi)-(viii)</td>
<td>Excess Emissions Report and Summary Report</td>
<td>Requirements for reporting excess emissions for CMS (now called deviations); requires all of the information in §§ 63.10(c)(5)-(13) and 63.8(c)(7)-(8)</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(e)(4)</td>
<td>Reporting COMS Data</td>
<td>Must submit COMS data with performance test data</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(f)</td>
<td>Waiver for Recordkeeping/Reporting</td>
<td>Procedures for Administrator to waive</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.11(b)</td>
<td>Flares</td>
<td>Requirements for flares</td>
<td>Yes; § 63.987 requirements apply, and the section references § 63.11(b).</td>
</tr>
<tr>
<td>§ 63.11(c), (d), and (e)</td>
<td>Control and work practice requirements</td>
<td>Alternative work practice for equipment leaks</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.12</td>
<td>Delegation</td>
<td>State authority to enforce standards</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.13</td>
<td>Addresses</td>
<td>Addresses where reports, notifications, and requests are sent</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.14</td>
<td>Incorporation by Reference</td>
<td>Test methods incorporated by reference</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.15</td>
<td>Availability of Information</td>
<td>Public and confidential information</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

What This Subpart Covers

§63.3080  What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for facilities which surface coat new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks. This subpart also establishes NESHAP for facilities which surface coat new other motor vehicle bodies or body parts for new other motor vehicles which you choose to include in your affected source pursuant to §63.3082(c). This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§63.3081  Am I subject to this subpart?

(a) Except as provided in paragraph (c) of this section, the source category to which this subpart applies is automobile and light-duty truck surface coating.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.3082, that, except as noted in paragraph (b)(1) of this section, is located at a facility which applies topcoat to new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks, and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.3082, in which you choose to include, pursuant to §63.3082(c), any coating operations which apply coatings to new other motor vehicle bodies or body parts for new other motor vehicles; parts intended for use in new automobiles, new light-duty trucks, or new other motor vehicles; or aftermarket repair or replacement parts for automobiles, light-duty trucks, or other motor vehicles; and the affected source is located at a facility that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

(1) You are not subject to this subpart if you meet all of the criteria of paragraphs (b)(1)(i) through (iii) of this section:

(i) Your coating operation is located at a plastic or composites molding facility;

(ii) All of the body parts topcoated at your facility for use in new automobiles or new light-duty trucks were fabricated (molded, stamped, formed, etc.) at your facility or at another plastic or composites molding facility which you own or operate, and none of the new vehicles in which these body parts are used are assembled at your facility; and
(iii) You do not topcoat all of the body parts for any single new automobile or new light-duty truck at your facility.

(2) [Reserved]

c) This subpart does not apply to surface coating, surface preparation, or cleaning activities that meet the criteria of paragraph (c)(1) or (2) of this section.

(1) Surface coating subject to any other NESHAP in this part as of June 25, 2004 except as provided in §63.3082(c).

(2) Surface coating that occurs during research or laboratory activities or that is part of janitorial, building, and facility maintenance operations, including maintenance spray booths used for painting production equipment, furniture, signage, etc., for use within the plant.


§63.3082 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks:

(1) All coating operations as defined in §63.3176.

(2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed.

(3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials.

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) In addition, you may choose to include in your affected source, and thereby make subject to the requirements of this subpart, any coating operations, as defined in §63.3176, which would otherwise be subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (subpart MMMM of this part) or the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (subpart PPPP of this part) which apply coatings to new other motor vehicle bodies or body parts for new other motor vehicles, parts intended for use in new automobiles, new light-duty trucks, or new other motor vehicles, or aftermarket repair or replacement parts for automobiles, light-duty trucks, or other motor vehicles.

(d) For all coating operations which you choose to add to your affected source pursuant to paragraph (c) of this section:

(1) All associated storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed; manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and storage containers and manual and automated equipment and containers used for conveying waste materials are also included in your affected source and are subject to the requirements of this subpart.

(2) All cleaning and purging of equipment associated with the added surface coating operations is subject to the requirements of this subpart.

(3) You must identify and describe all additions to the affected source made pursuant to paragraph (c) of this section in the initial notification required in §63.3110(b).
(e) An affected source is a new affected source if:

(1) You commenced its construction after December 24, 2002; and

(2) The construction is of a completely new automobile and light-duty truck assembly plant, automobile and light-duty truck paint shop, automobile and light-duty truck topcoat operation, other motor vehicle assembly plant, other motor vehicle paint shop, or other motor vehicle topcoat operation where previously no automobile and light-duty truck assembly plant, automobile and light-duty truck assembly paint shop, or automobile and light-duty truck assembly topcoat operation had existed; and

(i) No other motor vehicle assembly plant, other motor vehicle paint shop, or other motor vehicle topcoat operation had existed previously; or

(ii) No previously existing other motor vehicle assembly plant, other motor vehicle paint shop, or other motor vehicle topcoat operation is subject to this subpart; or

(iii) If the facility was previously not a major source for HAP, no previously existing other motor vehicle assembly plant, other motor vehicle paint shop, or other motor vehicle topcoat operation is made part of the affected source under this subpart.

(f) An affected source is reconstructed if its paint shop undergoes replacement of components to such an extent that:

(1) The fixed capital cost of the new components exceeded 50 percent of the fixed capital cost that would be required to construct a new paint shop; and

(2) It was technologically and economically feasible for the reconstructed source to meet the relevant standards established by the Administrator pursuant to section 112 of the Clean Air Act (CAA).

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


§63.3083 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstrations described in §§63.3150, 63.3160, and 63.3170.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before June 25, 2004, the compliance date is June 25, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after June 25, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is April 26, 2007.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or June 25, 2004, whichever is later.
(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or April 26, 2007, whichever is later.

(d) You must meet the notification requirements in §63.3110 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§63.3090 What emission limits must I meet for a new or reconstructed affected source?

(a) Except as provided in paragraph (b) of this section, you must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.036 kilogram (kg)/liter (0.30 pound (lb)/gallon (gal)) of coating solids deposited during each month, determined according to the requirements in §63.3161.

(b) If you meet the operating limits of §63.3092(a) or (b), you must either meet the emission limits of paragraph (a) of this section or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.060 kg/liter (0.50 lb/gal) of applied coating solids used during each month, determined according to the requirements in §63.3171. If you do not have an electrodeposition primer system, you must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.060 kg/liter (0.50 lb/gal) of applied coating solids used during each month, determined according to the requirements in §63.3171.

(c) You must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month.

(d) You must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month.

(e) For coatings and thinners used in coating operations added to the affected source pursuant to §63.3082(c):

(1) Adhesive and sealer materials that are not components of glass bonding systems are subject to and must be included in your demonstration of compliance for paragraph (c) of this section.

(2) Deadener materials are subject to and must be included in your demonstration of compliance for paragraph (d) of this section.

(3) All other coatings and thinners are subject to and must be included in your demonstration of compliance for paragraphs (a) or (b) of this section.

(f) If your facility has multiple paint lines (e.g., two or more totally distinct paint lines each serving a distinct assembly line, or a facility with two or more paint lines sharing the same paint kitchen or mix room), then for the operations addressed in paragraphs (a) and (b) of this section:

(1) You may choose to use a single grouping under paragraph (a) of this section for all of your electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations.
(2) You may choose to use a single grouping under paragraph (b) of this section for all of your primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations as long as each of your electrodeposition primer systems meets the operating limits of §63.3092(a) or (b).

(3) You may choose to use one or more groupings under paragraph (a) of this section for the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from one or more of your paint lines; and one or more groupings under paragraph (b) of this section for the primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from the remainder of your paint lines, as long as each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section meets the operating limits of §63.3092(a) or (b). For example, if your facility has three paint lines, you may choose to use one grouping under paragraph (a) of this section for two of the paint lines; and a separate grouping under paragraph (b) of this section for the third paint line, as long as the electrodeposition primer system associated with the paint line you include in the grouping under paragraph (b) of this section meets the operating limits of §63.3092(a) or (b). Alternatively, you may choose to use one grouping for two of the paint lines and a separate grouping of the same type for the third paint line. Again, each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section must meet the operating limits of §63.3092(a) or (b).

(4) You may choose to consider the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from each of your paint lines as a separate grouping under either paragraph (a) or paragraph (b) of this section. The electrodeposition primer system associated with each paint line you choose to consider in a grouping under paragraph (b) of this section must meet the operating limits of §63.3092(a) or (b). For example, if your facility has two paint lines, you may choose to use the grouping under paragraph (a) of this section for one paint line and the grouping under paragraph (b) of this section for the other paint line.

§63.3091  What emission limits must I meet for an existing affected source?

(a) Except as provided in paragraph (b) of this section, you must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.072 kg/liter (0.60 lb/gal) of coating solids deposited during each month, determined according to the requirements in §63.3161.

(b) If you meet the operating limits of §63.3092(a) or (b), you must either meet the emission limits of paragraph (a) of this section or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in §63.3171. If you do not have an electrodeposition primer system, you must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in §63.3171.

(c) You must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month.

(d) You must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month.

(e) For coatings and thinners used in coating operations added to the affected source pursuant to §63.3082(c):

(1) Adhesive and sealer materials that are not components of glass bonding systems are subject to and must be included in your demonstration of compliance for paragraph (c) of this section.
(2) Deadener materials are subject to and must be included in your demonstration of compliance for paragraph (d) of this section.

(3) All other coatings and thinners are subject to and must be included in your demonstration of compliance for paragraphs (a) or (b) of this section.

(f) If your facility has multiple paint lines (e.g., two or more totally distinct paint lines each serving a distinct assembly line, or a facility with two or more paint lines sharing the same paint kitchen or mix room), then for the operations addressed in paragraphs (a) and (b) of this section:

(1) You may choose to use a single grouping under paragraph (a) of this section for all of your electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations.

(2) You may choose to use a single grouping under paragraph (b) of this section for all of your primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations, as long as each of your electrodeposition primer systems meets the operating limits of §63.3092(a) or (b).

(3) You may choose to use one or more groupings under paragraph (a) of this section for the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from one or more of your paint lines; and one or more groupings under paragraph (b) of this section for the primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from the remainder of your paint lines, as long as each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section meets the operating limits of §63.3092(a) or (b). For example, if your facility has three paint lines, you may choose to use one grouping under paragraph (a) of this section for two of the paint lines and a separate grouping under paragraph (b) of this section for the third paint line, as long as the electrodeposition primer system associated with the paint line you include in the grouping under paragraph (b) of this section meets the operating limits of §63.3092(a) or (b). Alternatively, you may choose to use one grouping for two of the paint lines and a separate grouping of the same type for the third paint line. Again, each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section must meet the operating limits of §63.3092(a) or (b).

(4) You may choose to consider the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from each of your paint lines as a separate grouping under either paragraph (a) or paragraph (b) of this section. The electrodeposition primer system associated with each paint line you choose to consider in a grouping under paragraph (b) of this section must meet the operating limits of §63.3092(a) or (b). For example, if your facility has two paint lines, you may choose to use the grouping under paragraph (a) of this section for one paint line and the grouping under paragraph (b) of this section for the other paint line.

§63.3092 How must I control emissions from my electrodeposition primer system if I want to comply with the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive emission limit?

If your electrodeposition primer system meets the requirements of either paragraph (a) or (b) of this section, you may choose to comply with the emission limits of §63.3090(b) or §63.3091(b) instead of the emission limits of §63.3090(a) or §63.3091(a).

(a) Each individual material added to the electrodeposition primer system contains no more than:

(1) 1.0 percent by weight of any organic HAP; and

(2) 0.10 percent by weight of any organic HAP which is an Occupational Safety and Health Administration (OSHA)-defined carcinogen as specified in 29 CFR 1910.1200(d)(4).

(b) Emissions from all bake ovens used to cure electrodeposition primers must be captured and ducted to a control device having a destruction or removal efficiency of at least 95 percent.
§63.3093   What operating limits must I meet?

(a) You are not required to meet any operating limits for any coating operation(s) without add-on controls.

(b) Except as provided in paragraph (d) of this section, for any controlled coating operation(s), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and add-on control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in §63.3167. You must meet the operating limits at all times after you establish them.

(c) If you choose to meet the emission limitations of §63.3092(b) and the emission limits of §63.3090(b) or §63.3091(b), then except as provided in paragraph (d) of this section, you must operate the capture system and add-on control device used to capture and control emissions from your electrodeposition primer bake oven(s) so that they meet the operating limits specified in Table 1 to this subpart.

(d) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).

§63.3094   What work practice standards must I meet?

(a) [Reserved]

(b) You must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established under §63.3090(a) through (d) or §63.3091(a) through (d). The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.

(2) The risk of spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) You must develop and implement a work practice plan to minimize organic HAP emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are established under §63.3090(a) through (d) or §63.3091(a) through (d).

(1) The plan shall, at a minimum, address each of the operations listed in paragraphs (c)(1)(i) through (viii) of this section in which you use organic-HAP-containing materials or in which there is a potential for emission of organic HAP.

(i) The plan must address vehicle body wipe emissions through one or more of the techniques listed in paragraphs (c)(1)(i)(A) through (E) of this section, or an approved alternative.

(A) Use of solvent-moistened wipes.
(B) Keeping solvent containers closed when not in use.

(C) Keeping wipe disposal/recovery containers closed when not in use.

(D) Use of tack-wipes.

(E) Use of solvents containing less than 1 percent organic HAP by weight.

(ii) The plan must address coating line purging emissions through one or more of the techniques listed in paragraphs (c)(1)(ii)(A) through (D) of this section, or an approved alternative.

(A) Air/solvent push-out.

(B) Capture and reclaim or recovery of purge materials (excluding applicator nozzles/tips).

(C) Block painting to the maximum extent feasible.

(D) Use of low-HAP or no-HAP solvents for purge.

(iii) The plan must address emissions from flushing of coating systems through one or more of the techniques listed in paragraphs (c)(1)(iii)(A) through (D) of this section, or an approved alternative.

(A) Keeping solvent tanks closed.

(B) Recovering and recycling solvents.

(C) Keeping recovered/recycled solvent tanks closed.

(D) Use of low-HAP or no-HAP solvents.

(iv) The plan must address emissions from cleaning of spray booth grates through one or more of the techniques listed in paragraphs (c)(1)(iv)(A) through (E) of this section, or an approved alternative.

(A) Controlled burn-off.

(B) Rinsing with high-pressure water (in place).

(C) Rinsing with high-pressure water (off line).

(D) Use of spray-on masking or other type of liquid masking.

(E) Use of low-HAP or no-HAP content cleaners.

(v) The plan must address emissions from cleaning of spray booth walls through one or more of the techniques listed in paragraphs (c)(1)(v)(A) through (E) of this section, or an approved alternative.

(A) Use of masking materials (contact paper, plastic sheet, or other similar type of material).

(B) Use of spray-on masking.

(C) Use of rags and manual wipes instead of spray application when cleaning walls.

(D) Use of low-HAP or no-HAP content cleaners.
(E) Controlled access to cleaning solvents.

(vi) The plan must address emissions from cleaning of spray booth equipment through one or more of the techniques listed in paragraphs (c)(1)(vi)(A) through (E) of this section, or an approved alternative.

(A) Use of covers on equipment (disposable or reusable).

(B) Use of parts cleaners (off-line submersion cleaning).

(C) Use of spray-on masking or other protective coatings.

(D) Use of low-HAP or no-HAP content cleaners.

(E) Controlled access to cleaning solvents.

(vii) The plan must address emissions from cleaning of external spray booth areas through one or more of the techniques listed in paragraphs (c)(1)(vii)(A) through (F) of this section, or an approved alternative.

(A) Use of removable floor coverings (paper, foil, plastic, or similar type of material).

(B) Use of manual and/or mechanical scrubbers, rags, or wipes instead of spray application.

(C) Use of shoe cleaners to eliminate coating track-out from spray booths.

(D) Use of booties or shoe wraps.

(E) Use of low-HAP or no-HAP content cleaners.

(F) Controlled access to cleaning solvents.

(viii) The plan must address emissions from housekeeping measures not addressed in paragraphs (c)(1)(i) through (vii) of this section through one or more of the techniques listed in paragraphs (c)(1)(viii)(A) through (C) of this section, or an approved alternative.

(A) Keeping solvent-laden articles (cloths, paper, plastic, rags, wipes, and similar items) in covered containers when not in use.

(B) Storing new and used solvents in closed containers.

(C) Transferring of solvents in a manner to minimize the risk of spills.

(2) Notwithstanding the requirements of paragraphs (c)(1)(i) through (viii) of this section, if the type of coatings used in any facility with surface coating operations subject to the requirements of this section are of such a nature that the need for one or more of the practices specified under paragraphs (c)(1)(i) through (viii) is eliminated, then the plan may include approved alternative or equivalent measures that are applicable or necessary during cleaning of storage, conveying, and application equipment.

(d) As provided in §63.6(g), we, the Environmental Protection Agency (EPA), may choose to grant you permission to use an alternative to the work practice standards in this section.

(e) The work practice plans developed in accordance with paragraphs (b) and (c) of this section are not required to be incorporated in your title V permit. Any revisions to the work practice plans developed in accordance with paragraphs (b) and (c) of this section do not constitute revisions to your title V permit.
(f) Copies of the current work practice plans developed in accordance with paragraphs (b) and (c) of this section, as well as plans developed within the preceding 5 years must be available on-site for inspection and copying by the permitting authority.

General Compliance Requirements

§63.3100 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in §§63.3090 and 63.3091 at all times, as determined on a monthly basis.

(b) The coating operations must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.3093 at all times except during periods of startup, shutdown, and malfunction.

(c) You must be in compliance with the work practice standards in §63.3094 at all times.

(d) You must always operate and maintain your affected source including all air pollution control and monitoring equipment you use for purposes of complying with this subpart according to the provisions in §63.6(e)(1)(i).

(e) You must maintain a log detailing the operation and maintenance of the emission capture systems, add-on control devices, and continuous parameter monitoring systems (CPMS) during the period between the compliance date specified for your affected source in §63.3083 and the date when the initial emission capture system and add-on control device performance tests have been completed, as specified in §63.3160.

(f) If your affected source uses emission capture systems and add-on control devices, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3). The SSMP must address startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control devices.


§63.3101 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§63.3110 What notifications must I submit?

(a) General. You must submit the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) You must submit the Initial Notification required by §63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after June 25, 2004, whichever is later. For an existing affected source, you must submit the Initial Notification no later than 1 year after April 26, 2004. Existing sources that have previously submitted notifications of applicability of this rule pursuant to §112(j) of the CAA are not required to submit an Initial Notification under §63.9(b) except to identify and describe all additions to the affected source made pursuant to §63.3082(c). If you elect to include the surface coating of new other motor vehicle bodies, body parts for new other motor vehicles, parts for new other motor vehicles, or aftermarket repair or replacement parts for other motor vehicles in your affected source pursuant to §63.3082(c) and your affected source has an initial startup before February 20, 2007, then you must submit an Initial Notification of this election no later than 120 days after initial startup or February 20, 2007, whichever is later.

(c) Notification of compliance status. If you have an existing source, you must submit the Notification of Compliance Status required by §63.9(h) no later than 30 days following the end of the initial compliance period described in §63.3160. If you have a new source, you must submit the Notification of Compliance Status required by §63.9(h) no
later than 60 days after the first day of the first full month following completion of all applicable performance tests. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (12) of this section and in §63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §63.3160 that applies to your affected source.

(4) Identification of the compliance option specified in §63.3090(a) or (b) or §63.3091(a) or (b) that you used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet any of the applicable emission limits in §63.3090 or §63.3091, include all the calculations you used to determine the applicable emission rate or applicable average organic HAP content for the emission limit(s) that you failed to meet. You do not need to submit information provided by the materials suppliers or manufacturers, or test reports.

(7) All data and calculations used to determine the monthly average mass of organic HAP emitted per volume of applied coating solids from:

(i) The combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) if you were eligible for and chose to comply with the emission limits of §63.3090(b) or §63.3091(b); or

(ii) The combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c).

(8) All data and calculations used to determine compliance with the separate limits for electrodeposition primer in §63.3092(a) or (b) if you were eligible for and chose to comply with the emission limits of §63.3090(b) or §63.3091(b).

(9) All data and calculations used to determine the monthly mass average HAP content of materials subject to the emission limits of §63.3090(c) or (d) or the emission limits of §63.3091(c) or (d).

(10) All data and calculations used to determine the transfer efficiency for primer-surfacer and topcoat coatings, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c).

(11) You must include the information specified in paragraphs (c)(11)(i) through (iii) of this section.

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the
emission capture system efficiency. Include a description of the procedure followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports unless requested.

(iii) A list of each emission capture system’s and add-on control device’s operating limits and a summary of the data used to calculate those limits.

(12) A statement of whether or not you developed and implemented the work practice plans required by §63.3094(b) and (c).


§63.3120  What reports must I submit?

(a) Semiannual compliance reports. You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (9) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (a)(2) of this section.

(1) Dates. Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in §63.3160 that applies to your affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual 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.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(ii)(A) or 40 CFR 71.6(a)(3)(ii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (a)(1)(iii) of this section.

(2) Inclusion with title V report. If you have obtained a title V operating permit 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)(ii)(A) or 40 CFR 71.6(a)(3)(ii)(A). If you submit a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(ii)(A) or 40 CFR 71.6(a)(3)(ii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice in this subpart, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permitting authority.

(3) General requirements. The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (iv) of this section, and the information specified in paragraphs (a)(4) through (9) and (c)(1) of this section that are applicable to your affected source.
(i) Company name and address.

(ii) 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.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31.

(iv) Identification of the compliance option specified in §63.3090(b) or §63.3091(b) that you used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) in the affected source during the initial compliance period.

(4) No deviations. If there were no deviations from the emission limitations, operating limits, or work practices in §§63.3090, 63.3091, 63.3092, 63.3093, and 63.3094 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used control devices to comply with the emission limits, and there were no periods during which the CPMS were out of control as specified in §63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out of control during the reporting period.

(5) Deviations: adhesive, sealer, and deadener. If there was a deviation from the applicable emission limits in §63.3090(c) and (d) or §63.3091(c) and (d), the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) The beginning and ending dates of each month during which the monthly average organic HAP content exceeded the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d).

(ii) The volume and organic HAP content of each material used that is subject to the applicable organic HAP content limit.

(iii) The calculation used to determine the average monthly organic HAP content for the month in which the deviation occurred.

(iv) The reason for the deviation.

(6) Deviations: combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive, or combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c). If there was a deviation from the applicable emission limits in §63.3090(a) or (b) or §63.3091(a) or (b), the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (xiv) of this section.

(i) The beginning and ending dates of each month during which the monthly organic HAP emission rate from combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) exceeded the applicable emission limit in §63.3090(a) or §63.3091(a); or the monthly organic HAP emission rate from combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) exceeded the applicable emission limit in §63.3090(b) or §63.3091(b).

(ii) The calculation used to determine the monthly organic HAP emission rate in accordance with §63.3161 or §63.3171. You do not need to submit the background data supporting these calculations, for example information provided by materials suppliers or manufacturers, or test reports.
(iii) The date and time that any malfunctions of the capture system or add-on control devices used to control emissions from these operations started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date and time period that each CPMS was out of control, including the information in §63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of each bypass of an add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to this subpart and the bypass of each add-on control device during the semiannual reporting period.

(x) A breakdown of the total duration of the deviations from each operating limit in Table 1 to this subpart and bypasses of each add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control devices since the last semiannual reporting period.

(xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(7) Deviations: separate electrodeposition primer organic HAP content limit. If you used the separate electrodeposition primer organic HAP content limits in §63.3092(a), and there was a deviation from these limits, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (iii) of this section.

(i) Identification of each material used that deviated from the emission limit, and the dates and time periods each was used.

(ii) The determination of mass fraction of each organic HAP for each material identified in paragraph (a)(7)(i) of this section. You do not need to submit background data supporting this calculation, for example, information provided by material suppliers or manufacturers, or test reports.

(iii) A statement of the cause of each deviation.

(8) Deviations: separate electrodeposition primer bake oven capture and control limitations. If you used the separate electrodeposition primer bake oven capture and control limitations in §63.3092(b), and there was a deviation from these limitations, the semiannual compliance report must contain the information in paragraphs (a)(8)(i) through (xii) of this section.

(i) The beginning and ending dates of each month during which there was a deviation from the separate electrodeposition primer bake oven capture and control limitations in §63.3092(b).
(ii) The date and time that any malfunctions of the capture systems or control devices used to control emissions from the electrodeposition primer bake oven started and stopped.

(iii) A brief description of the CPMS.

(iv) The date of the latest CPMS certification or audit.

(v) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vi) The date, time, and duration that each CPMS was out of control, including the information in §63.8(c)(8).

(vii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of each bypass of an add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(viii) A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to this subpart and the bypasses of each add-on control device during the semiannual reporting period.

(ix) A breakdown of the total duration of the deviations from each operating limit in Table 1 to this subpart and bypasses of each add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(x) A summary of the total duration and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.

(xi) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control devices since the last semiannual reporting period.

(xii) A statement of the cause of each deviation.

(9) Deviations: work practice plans. If there was a deviation from an applicable work practice plan developed in accordance with §63.3094(b) or (c), the semiannual compliance report must contain the information in paragraphs (a)(9)(i) through (iii) of this section.

(i) The time period during which each deviation occurred.

(ii) The nature of each deviation.

(iii) The corrective action(s) taken to bring the applicable work practices into compliance with the work practice plan.

(b) Performance test reports. If you use add-on control devices, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in §63.10(d)(2). You must submit reports of transfer efficiency tests no later than 60 days after completing the tests as specified in §63.10(d)(2).

(c) Startup, shutdown, and malfunction reports. If you used add-on control devices and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your SSMP, you must include the information specified in §63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your SSMP, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.
(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in §63.10(d)(5)(ii). The letter must contain the information specified in §63.10(d)(5)(ii).

§63.3130 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP, the density and the volume fraction of coating solids for each coating, the mass fraction of organic HAP and the density for each thinner, and the mass fraction of organic HAP for each cleaning material. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. If you use the results of an analysis conducted by an outside testing lab, you must keep a copy of the test report. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each month, the records specified in paragraphs (c)(1) through (6) of this section.

(1) For each coating used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations and for each coating, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c), a record of the volume used in each month, the mass fraction organic HAP content, the density, and the volume fraction of solids.

(2) For each thinner used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive primer, and glass bonding adhesive operations and for each thinner, except for thinner used for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c), a record of the volume used in each month, the mass fraction organic HAP content, and the density.

(3) For each deadener material and for each adhesive and sealer material, a record of the mass used in each month and the mass organic HAP content.

(4) A record of the calculation of the organic HAP emission rate for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) for each month if subject to the emission limit of §63.3090(a) or §63.3091(a). This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in the “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22), are used, you must keep records of all data input to this protocol. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.

(5) A record of the calculation of the organic HAP emission rate for primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) for each month if subject to the emission limit of §63.3090(b) or §63.3091(b), and a record of the weight fraction of each organic HAP in each material added to the electrodeposition
primer system if subject to the limitations of §63.3092(a). This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in the "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-016 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22), are used, you must keep records of all data input to this protocol. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.

(6) A record, for each month, of the calculation of the average monthly mass organic HAP content of:

(i) Sealers and adhesives; and

(ii) Deadeners.

(d) A record of the name and volume of each cleaning material used during each month.

(e) A record of the mass fraction of organic HAP for each cleaning material used during each month.

(f) A record of the density for each cleaning material used during each month.

(g) A record of the date, time, and duration of each deviation, and for each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(h) The records required by §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(i) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in §63.3165(a).

(j) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§63.3164 and 63.3165(b) through (g), including the records specified in paragraphs (j)(1) through (4) of this section that apply to you.

(1) Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure. Records of the mass of total volatile hydrocarbon (TVH), as measured by Method 204A or F of appendix M to 40 CFR part 51, for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(2) Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure. Records of the mass of TVH emissions captured by the emission capture system, as measured by Method 204B or C of appendix M to 40 CFR part 51, at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(3) Records for panel tests. Records needed to document a capture efficiency determination using a panel test as described in §63.3165(e) and (g), including a copy of the test report and calculations performed to convert the panel test results to percent capture efficiency values.

(4) Records for an alternative protocol. Records needed to document a capture efficiency determination using an alternative method or protocol, as specified in §63.3165(f), if applicable.
(k) The records specified in paragraphs (k)(1) and (2) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.3166.

(1) Records of each add-on control device performance test conducted according to §§63.3164 and 63.3166.

(2) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(l) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.3167 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(m) Records of the data and calculations you used to determine the transfer efficiency for primer-surfacer and topcoat coatings and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c).

(n) A record of the work practice plans required by §63.3094(b) and (c) and documentation that you are implementing the plans on a continuous basis. Appropriate documentation may include operational and maintenance records, records of documented inspections, and records of internal audits.

(o) For each add-on control device and for each continuous parameter monitoring system, a copy of the equipment operating instructions must be maintained on-site for the life of the equipment in a location readily available to plant operators and inspectors. You may prepare your own equipment operating instructions, or they may be provided to you by the equipment supplier or other third party.


§63.3131 In what form and for 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). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) Except as provided in §63.3130(o), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record, as specified in §63.10(b)(1).

(c) Except as provided in §63.3130(o), 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 may keep the records off site for the remaining 3 years.

Compliance Requirements for Adhesive, Sealer, and Deadener

§63.3150 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3151. The initial compliance period begins on the applicable compliance date specified in §63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass average organic HAP content of the materials used each month for each group of materials for which an emission limitation is established in §63.3090(c) and (d) or §63.3091(c) and (d). The initial compliance demonstration includes the calculations according to §63.3151 and supporting documentation showing that during the initial compliance period, the mass average organic HAP content for each group of materials was equal to or less than the applicable emission limits in §63.3090(c) and (d) or §63.3091(c) and (d).
§63.3151 How do I demonstrate initial compliance with the emission limitations?

You must separately calculate the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in §63.3090(c) and (d) or §63.3091(c) and (d). If every individual material used within a group of materials meets the emission limit for that group of materials, you may demonstrate compliance with that emission limit by documenting the name and the organic HAP content of each material used during the initial compliance period. If any individual material used within a group of materials exceeds the emission limit for that group of materials, you must determine the mass average organic HAP content according to the procedures of paragraph (d) of this section.

(a) Determine the mass fraction of organic HAP for each material used. You must determine the mass fraction of organic HAP for each material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) Method 311 (appendix A to 40 CFR part 63). You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (e.g., 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (e.g., 0.7638 truncates to 0.763).

(2) Method 24 (appendix A to 40 CFR part 60). For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP.

(3) Alternative method. You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(4) Information from the supplier or manufacturer of the material. You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence, unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(5) Solvent blends. Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When neither test data nor manufacturer's data for solvent blends are available, you may use the default values for the mass fraction of organic HAP in the solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries, and you may only use Table 4 if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence, unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the data from Table 3 or 4 are correct.

(b) Determine the density of each material used. Determine the density of each material used during the compliance period from test results using ASTM Method D1475-98 (Reapproved 2003), “Standard Test Method for Density of Liquid Coatings, Inks, and Related Products” (incorporated by reference, see §63.14), or for powder coatings, test method A or test method B of ASTM Method D5965-02, “Standard Test Methods for Specific Gravity of Coating Powders,” (incorporated by reference, see §63.14), or information from the supplier or manufacturer of the material.
there is disagreement between ASTM Method D1475-98 (Reapproved 2003) test results or ASTM Method D5965-02, test method A or test method B test results and the supplier's or manufacturer's information, the test results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(c) **Determine the volume of each material used.** Determine the volume (liters) of each material used during each month by measurement or usage records.

(d) **Determine the mass average organic HAP content for each group of materials.** Determine the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in §63.3090(c) and (d) or §63.3091(c) and (d), using Equations 1 and 2 of this section.

(1) Calculate the mass average organic HAP content of adhesive and sealer materials other than components of the glass bonding system used in the initial compliance period using Equation 1 of this section:

\[
c_{avg, as} = \frac{\sum_{j=1}^{r} (\text{Vol}_{as,j})(D_{as,j})(W_{as,j})}{\sum_{j=1}^{r} (\text{Vol}_{as,j})(D_{as,j})} \quad (Eq. 1)
\]

Where:

- \(C_{avg, as}\) = Mass average organic HAP content of adhesives and sealer materials used, kg/kg.
- \(\text{Vol}_{as,j}\) = Volume of adhesive or sealer material, \(j\), used, liters.
- \(D_{as,j}\) = Density of adhesive or sealer material, \(j\), used, kg per liter.
- \(W_{as,j}\) = Mass fraction of organic HAP in adhesive or sealer material, \(j\), kg/kg.
- \(r\) = Number of adhesive and sealer materials used.

(2) Calculate the mass average organic HAP content of deadener materials used in the initial compliance period using Equation 2 of this section:

\[
c_{avg, d} = \frac{\sum_{m=1}^{5} (\text{Vol}_{d,m})(D_{d,m})(W_{d,m})}{\sum_{m=1}^{5} (\text{Vol}_{d,m})(D_{d,m})} \quad (Eq. 2)
\]

Where:

- \(C_{avg, d}\) = Mass average organic HAP content of deadener material used, kg/kg.
- \(\text{Vol}_{d,m}\) = Volume of deadener material, \(m\), used, liters.
- \(D_{d,m}\) = Density of deadener material, \(m\), used, kg per liter.
- \(W_{d,m}\) = Mass fraction of organic HAP in deadener material, \(m\), kg/kg.
(e) Compliance demonstration. The mass average organic HAP content for the compliance period must be less than or equal to the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must submit a statement that the coating operations were in compliance with the emission limitations during the initial compliance period because the mass average organic HAP content was less than or equal to the applicable emission limits in §63.3090(c) and (d) or §63.3091(c) and (d), determined according to this section.

§63.3152 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the mass average organic HAP content for each compliance period, determined according to §63.3151(a) through (d), must be less than or equal to the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in §63.3150 is a compliance period consisting of that month.

(b) If the mass average organic HAP emission content for any compliance period exceeds the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d), this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(5).

(c) You must maintain records as specified in §§63.3130 and 63.3131.

Compliance Requirements for the Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations

§63.3160 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) New and reconstructed affected sources. For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.3083. You must conduct a performance test of each capture system and add-on control device according to §§63.3164 through 63.3166 and establish the operating limits required by §63.3093 no later than 180 days after the applicable compliance date specified in §63.3083.

(2) You must develop and begin implementing the work practice plans required by §63.3094(b) and (c) no later than the compliance date specified in §63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3161. The initial compliance period begins on the applicable compliance date specified in §63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass of organic HAP emissions and volume of coating solids deposited in the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.3164 through 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limit in §63.3090(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3168; and documentation of whether you developed and implemented the work practice plans required by §63.3094(b) and (c).

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.3093 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and CPMS during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section.
(b) Existing affected sources. For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.3083. You must conduct a performance test of each capture system and add-on control device according to the procedures in §§63.3164 through 63.3166 and establish the operating limits required by §63.3093 no later than the compliance date specified in §63.3083.

(2) You must develop and begin implementing the work practice plans required by §63.3094(b) and (c) no later than the compliance date specified in §63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3161. The initial compliance period begins on the applicable compliance date specified in §63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass of organic HAP emissions and volume of coating solids deposited during the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.3164 through 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limits in §63.3091(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3168; and documentation of whether you developed and implemented the work practice plans required by §63.3094(b) and (c).

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system (either a previous stack test or a previous panel test) or control device. You are not required to conduct an initial test to determine transfer efficiency if you receive approval to use the results of a test that has been previously conducted. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section.

(1) The previous test must have been conducted using the methods and conditions specified in this subpart.

(2) Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test reliably demonstrate compliance despite process or equipment changes.

(3) Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.

§63.3161 How do I demonstrate initial compliance?

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(a) or §63.3091(a).

(b) Compliance with operating limits. Except as provided in §63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.3093, using the procedures specified in §§63.3167 and 63.3168.

(c) Compliance with work practice requirements. You must develop, implement, and document your implementation of the work practice plans required by §63.3094(b) and (c) during the initial compliance period, as specified in §63.3130.

(d) Compliance with emission limits. You must follow the procedures in paragraphs (e) through (o) of this section to demonstrate compliance with the applicable emission limit in §63.3090(a) or §63.3091(a). You may also use the
(e) **Determine the mass fraction of organic HAP, density, and volume used.** Follow the procedures specified in §63.3151(a) through (c) to determine the mass fraction of organic HAP and the density and volume of each coating and thinner used during each month. For electrodeposition primer operations, the mass fraction of organic HAP, density, and volume must be determined for each material added to the tank or system during each month.

(f) **Determine the volume fraction of coating solids for each coating.** You must determine the volume fraction of coating solids (liter of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material, as specified in paragraphs (f)(1) and (2) of this section. For electrodeposition primer operations, the volume fraction of solids must be determined for each material added to the tank or system during each month. If test results obtained according to paragraph (f)(1) of this section do not agree with the information obtained under paragraph (f)(2) of this section, the test results will take precedence unless, after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.


2. **Information from the supplier or manufacturer of the material.** You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(g) **Determine the transfer efficiency for each coating.** You must determine the transfer efficiency for each primer-surfacer and topcoat coating, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) using ASTM Method D5066-91 (Reapproved 2001), “Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis” (incorporated by reference, see §63.14), or the guidelines presented in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You may conduct transfer efficiency testing on representative coatings and for representative spray booths as described in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You may assume 100 percent transfer efficiency for electrodeposition primer coatings, glass bonding primers, and glass bonding adhesives. For final repair coatings, you may assume 40 percent transfer efficiency for air atomized spray and 55 percent transfer efficiency for electrostatic spray and high volume, low pressure spray. For blackout, chip resistant edge primer, interior color, in-line repair, lower body anti-chip coatings, or underbody anti-chip coatings, you may assume 40 percent transfer efficiency for air atomized spray, 55 percent transfer efficiency for electrostatic spray and high volume-low pressure spray, and 80 percent transfer efficiency for airless spray.

(h) **Calculate the total mass of organic HAP emissions before add-on controls.** Calculate the total mass of organic HAP emissions before consideration of add-on controls from all coatings and thinners used during each month in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) using Equation 1 of this section:

\[ H_{2C} = A + B \quad (Eq. 1) \]

Where:
H_{BC} = \text{Total mass of organic HAP emissions before consideration of add-on controls during the month, kg.}

A = \text{Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.}

B = \text{Total mass of organic HAP in the thinners used during the month, kg, as calculated in Equation 1B of this section.}

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

\[ A = \sum_{i=1}^{m} (V_{oi,j})(D_{c,i})(W_{c,i}) \quad \text{(Eq. 1A)} \]

Where:

A = \text{Total mass of organic HAP in the coatings used during the month, kg.}

Vol_{c,i} = \text{Total volume of coating, i, used during the month, liters.}

D_{c,i} = \text{Density of coating, i, kg coating per liter coating.}

W_{c,i} = \text{Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.}

m = \text{Number of different coatings used during the month.}

(2) Calculate the kg of organic HAP in the thinners used during the month using Equation 1B of this section:

\[ B = \sum_{j=1}^{n} (V_{ol,j})(D_{t,j})(W_{t,j}) \quad \text{(Eq. 1B)} \]

Where:

B = \text{Total mass of organic HAP in the thinners used during the month, kg.}

Vol_{t,j} = \text{Total volume of thinner, j, used during the month, liters.}

D_{t,j} = \text{Density of thinner, j, kg per liter.}

W_{t,j} = \text{Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.}

n = \text{Number of different thinners used during the month.}

(i) Calculate the organic HAP emission reduction for each controlled coating operation. Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions captured by the emission capture system and destroyed or removed by the add-on control device. Use the procedures in paragraph (j) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (k) of this section to calculate the organic HAP emission reduction.

(j) Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balances. For each controlled coating operation using an emission capture system and add-on control device other
than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the mass of organic HAP emission reduction for the controlled coating operation, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, during the month using Equation 2 of this section. The calculation of mass of organic HAP emission reduction for the controlled coating operation during the month applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation served by the emission capture system and add-on control device during each month. Except as provided in paragraph (p) of this section, for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement of the capture system or control device serving the controlled coating operation occurred, you must assume zero efficiency for the emission capture system and add-on control device. Equation 2 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

\[
H_{Cr} = (A_C + B_C - A_{unc} - B_{unc}) \left( \frac{CE \times DRE}{100} \right) 
\]  
(Eq. 2)

Where:

- \(H_{Cr}\) = Mass of organic HAP emission reduction, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, kg.
- \(A_C\) = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 2A of this section.
- \(B_C\) = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg, as calculated in Equation 2B of this section.
- \(A_{unc}\) = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2C of this section.
- \(B_{unc}\) = Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2D of this section.
- \(CE\) = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§63.3164 and 63.3165 to measure and record capture efficiency.
- \(DRE\) = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§63.3164 and 63.3166 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg, using Equation 2A of this section.

\[
A_C = \sum_{i=1}^{n} \left( V_{C_{i,j}} \right) \left( D_{C_{i,j}} \right) \left( W_{C_{i,j}} \right) 
\]  
(Eq. 2A)

Where:

- \(A_C\) = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.
Vol_c,i = Total volume of coating, i, used during the month, liters.

Dc,i = Density of coating, i, kg per liter.

Wc,i = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, kg, using Equation 2B of this section.

\[ B_c = \sum_{j=1}^{n} \left( Vol_{t,j} \right) \left( D_{t,j} \right) \left( W_{t,j} \right) \]  \hspace{2cm} (Eq. 2B)

Where:

Bc = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg.

Vol_{t,j} = Total volume of thinner, j, used during the month, liters.

D_{t,j} = Density of thinner, j, kg per liter.

W_{t,j} = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(3) Calculate the mass of organic HAP in the coatings used in the controlled coating operation during deviations specified in §63.3163(c) and (d), using Equation 2C of this section:

\[ A_{unc} = \sum_{i=1}^{m} \left( VOLD_{i} \right) \left( D_{i} \right) \left( W_{i} \right) \]  \hspace{2cm} (Eq. 2C)

Where:

A_{unc} = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg.

VOLD_{i} = Total volume of coating, i, used in the controlled coating operation during deviations, liters.

D_{i} = Density of coating, i, kg per liter.

W_{i} = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings.

(4) Calculate the mass of organic HAP in the thinners used in the controlled coating operation during deviations specified in §63.3163(c) and (d), using Equation 2D of this section:
Where:

\[ B_{\text{unc}} = \sum_{j=1}^{n} \left( \text{VOLD}_j \right) \left( D_j \right) \left( W_j \right) \]  
(Eq. 2D)

\[ B_{\text{unc}} = \text{Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg.} \]

\[ \text{VOLD}_j = \text{Total volume of thinner, } j, \text{ used in the controlled coating operation during deviations, liters.} \]

\[ D_j = \text{Density of thinner, } j, \text{ kg per liter.} \]

\[ W_h = \text{Mass fraction of organic HAP in thinner, } j, \text{ kg organic HAP per kg coating.} \]

\[ n = \text{Number of different thinners.} \]

(k) Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings and thinners used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (k)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (k)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer’s specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ±2.0 percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, kg, based on measurement with the device required in paragraph (k)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will govern unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility’s data are correct.

(4) Determine the density of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to §63.3151(b).

(5) Measure the volume of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system’s volatile organic matter collection and recovery efficiency, using Equation 3 of this section:
Where:

\( R_V \) = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

\( M_{VR} \) = Mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

\( Vol_i \) = Volume of coating, \( i \), used in the coating operation controlled by the solvent recovery system during the month, liters.

\( D_i \) = Density of coating, \( i \), kg per liter.

\( WV_{i} \) = Mass fraction of volatile organic matter for coating, \( i \), kg volatile organic matter per kg coating.

\( Vol_j \) = Volume of thinner, \( j \), used in the coating operation controlled by the solvent recovery system during the month, liters.

\( D_j \) = Density of thinner, \( j \), kg per liter.

\( WV_{j} \) = Mass fraction of volatile organic matter for thinner, \( j \), kg volatile organic matter per kg thinner.

\( m \) = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

\( n \) = Number of different thinners used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 4 of this section:

\[
H_{CSR} = \left( A_{CSR} + B_{CSR} \right) \left( \frac{R_V}{100} \right) \quad (Eq. \ 4)
\]

Where:

\( H_{CSR} \) = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg.

\( A_{CSR} \) = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4A of this section.

\( B_{CSR} \) = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4B of this section.

\( R_V \) = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 3 of this section.
(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 4A of this section.

\[ A_{CSR} = \sum_{i=1}^{m} \left( V_{o,i} \right) \left( D_{c,i} \right) \left( W_{c,i} \right) \quad (Eq. \ 4A) \]

Where:

- \( A_{CSR} \) = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.
- \( V_{o,i} \) = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.
- \( D_{c,i} \) = Density of coating, i, kg per liter.
- \( W_{c,i} \) = Mass fraction of organic HAP in coating, i, kg per kg.
- \( m \) = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, using Equation 4B of this section.

\[ B_{CSR} = \sum_{j=1}^{n} \left( V_{l,j} \right) \left( D_{t,j} \right) \left( W_{t,j} \right) \quad (Eq. \ 4B) \]

Where:

- \( B_{CSR} \) = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system during the month, kg.
- \( V_{l,j} \) = Total volume of thinner, j, used during the month in the coating operation controlled by the solvent recovery system, liters.
- \( D_{t,j} \) = Density of thinner, j, kg per liter.
- \( W_{t,j} \) = Mass fraction of organic HAP in thinner, j, kg per kg.
- \( n \) = Number of different thinners used.

(i) Calculate the total volume of coating solids deposited. Determine the total volume of coating solids deposited, liters, in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems used in coating operations added to the affected source pursuant to §63.3082(c) using Equation 5 of this section:

\[ V_{sdep} = \sum_{k=1}^{p} \left( V_{o,k} \right) \left( V_{l,k} \right) \left( T_{E,k} \right) \quad (Eq. \ 5) \]

Where:

\( V_{sdep} \) = Total volume of coating solids deposited during the month, liters.
Vol$_{i}$ = Total volume of coating, $i$, used during the month, liters.

$V_{s,i}$ = Volume fraction of coating solids for coating, $i$, liter solids per liter coating, determined according to §63.3161(f).

TE$_{i}$ = Transfer efficiency of coating, $i$, determined according to §63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60.

M = Number of coatings used during the month.

(m) **Calculate the mass of organic HAP emissions for each month.** Determine the mass of organic HAP emissions, kg, during each month, using Equation 6 of this section.

\[
H_{\text{HAP}} = H_{\text{BC}} - \sum_{i=1}^{q} \left[ H_{\text{OH},i} - \sum_{j=1}^{r} H_{\text{CSR},j} - \sum_{k=1}^{S_k} \sum_{m=1}^{S_k} H_{\text{DEV},k,m} \right] \quad (\text{Eq. 6})
\]

Where:

$H_{\text{HAP}}$ = Total mass of organic HAP emissions for the month, kg.

$H_{\text{BC}}$ = Total mass of organic HAP emissions before add-on controls from all the coatings and thinners used during the month, kg, determined according to paragraph (h) of this section.

$H_{\text{OH},i}$ = Total mass of organic HAP emission reduction for controlled coating operation, $i$, not using a liquid-liquid material balance, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, from Equation 2 of this section.

$H_{\text{CSR},j}$ = Total mass of organic HAP emission reduction for coating operation, $j$, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 4 of this section.

$H_{\text{DEV},k,m}$ = Mass of organic HAP emission reduction, based on the capture system and control device efficiency approved under paragraph (p) of this section for period of deviation, $m$, for controlled coating operation, $k$, kg, as determined using Equation 8 of this section.

$q$ = Number of controlled coating operations not using a liquid-liquid material balance.

$r$ = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

$S_k$ = Number of periods of deviation in the month for which non-zero capture and control device efficiencies have been approved for controlled coating operation, $k$.

(n) **Calculate the organic HAP emission rate for the month.** Determine the organic HAP emission rate for the month, kg organic HAP per liter coating solids deposited, using Equation 7 of this section:

\[
H_{\text{rate}} = \frac{H_{\text{HAP}}}{V_{\text{seq}}} \quad (\text{Eq. 7})
\]

Where:

$H_{\text{rate}}$ = Organic HAP emission rate for the month compliance period, kg organic HAP per liter coating solids deposited.

$H_{\text{HAP}}$ = Mass of organic HAP emissions for the month, kg, determined according to Equation 6 of this section.
Vsdep = Total volume of coating solids deposited during the month, liters, from Equation 5 of this section.

(o) Compliance demonstration. To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must be less than or equal to the applicable emission limitation in §63.3090(a) or §63.3091(a). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.3090(a) or §63.3091(a) and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094.

(p) You may request approval from the Administrator to use non-zero capture efficiencies and add-on control device efficiencies for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation occurred.

(1) If you have manually collected parameter data indicating that a capture system or add-on control device was operating normally during a CPMS malfunction, a CPMS out-of-control period, or associated repair, then these data may be used to support and document your request to use the normal capture efficiency or add-on control device efficiency for that period of deviation.

(2) If you have data indicating the actual performance of a capture system or add-on control device (e.g., capture efficiency measured at a reduced flow rate or add-on control device efficiency measured at a reduced thermal oxidizer temperature) during a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation, then these data may be used to support and document your request to use these values for that period of deviation.

(3) The organic HAP emission reduction achieved during each period of deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation for which the Administrator has approved the use of non-zero capture efficiency and add-on control device efficiency values is calculated using Equation 8 of this section.

\[
H_{DEV} = \left( A_{DEV} + B_{DEV} \right) \left( \frac{CE_{DEV}}{100} \right) \left( \frac{DRE_{DEV}}{100} \right)
\]  
(Eq. 8)

Where:

\( H_{DEV} \) = Mass of organic HAP emission reduction achieved during a period of deviation for the controlled coating operation, kg.

\( A_{DEV} \) = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8A of this section.

\( B_{DEV} \) = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8B of this section.

\( CE_{DEV} \) = Capture efficiency of the emission capture system vented to the add-on control device, approved for the period of deviation, percent.

\( DRE_{DEV} \) = Organic HAP destruction or removal efficiency of the add-on control device approved for the period of deviation, percent.
(4) Calculate the total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation using equation 8A of this section:

\[ A_{\text{DEV}} = \sum_{i=1}^{m} (VOL_{C_{\text{DEV}},i})(D_{c,i})(W_{c,i}) \]  
\( (\text{Eq. } 8A) \)

Where:

- \( A_{\text{DEV}} \) = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg.
- \( VOL_{C_{\text{DEV}},i} \) = total volume of coating, i, used in the controlled coating operation during the period of deviation, liters.
- \( D_{c,i} \) = Density of coating, i, kg per liter.
- \( W_{c,i} \) = Mass fraction of organic HAP in coating, i, kg per kg.
- \( m \) = Number of different coatings used.

(5) Calculate the total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation using equation 8B of this section:

\[ B_{\text{DEV}} = \sum_{j=1}^{n} (VOL_{T_{\text{DEV}},j})(D_{t,j})(W_{t,j}) \]  
\( (\text{Eq. } 8B) \)

Where:

- \( B_{\text{DEV}} \) = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg.
- \( VOL_{T_{\text{DEV}},j} \) = total volume of thinner, j, used in the controlled coating operation during the period of deviation, liters.
- \( D_{t,j} \) = Density of thinner, j, kg per liter.
- \( W_{t,j} \) = Mass fraction of organic HAP in thinner, j, kg per kg.
- \( n \) = Number of different thinners used.


§63.3162 [Reserved]

§63.3163 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in §63.3090(a) or §63.3091(a), the organic HAP emission rate for each compliance period, determined according to the procedures in §63.3161, must be equal to or less than the applicable emission limit in §63.3090(a) or §63.3091(a). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in §63.3160 is a compliance period consisting of that month. You must perform the calculations in §63.3161 on a monthly basis.
(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in §63.3090(a) or §63.3091(a), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(c) You must demonstrate continuous compliance with each operating limit required by §63.3093 that applies to you, as specified in Table 1 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation except as provided in §63.3161(p).

(d) You must meet the requirements for bypass lines in §63.3168(b) for control devices other than solvent recovery systems for which you conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §63.3110(c)(6) and 63.3120(a)(6). For the purposes of completing the compliance calculations specified in §63.3161(k), you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation.

(e) You must demonstrate continuous compliance with the work practice standards in §63.3094. If you did not develop a work practice plan, if you did not implement the plan, or if you did not keep the records required by §63.3130(n), this is a deviation from the work practice standards that must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(f) If there were no deviations from the emission limitations, submit a statement as part of the semiannual compliance report that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.3090(a) or §63.3091(a), and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094 during each compliance period.

(g) [Reserved]

(h) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations according to the provisions in §63.6(e).

(i) [Reserved]

(j) You must maintain records as specified in §§63.3130 and 63.3131.


§63.3164 What are the general requirements for performance tests?

(a) You must conduct each performance test required by §63.3160 according to the requirements in §63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in §63.7(h).

(1) Representative coating operation operating conditions. You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction, and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.
(2) **Representative emission capture system and add-on control device operating conditions.** You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in §63.3165. You must conduct each performance test of an add-on control device according to the requirements in §63.3166.

### §63.3165 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by §63.3160. For purposes of this subpart, a spray booth air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate that the direction of air movement across the interface between the spray booth air seal and the spray booth is into the spray booth. For purposes of this subpart, a bake oven air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. You may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations as part of showing that your capture system is a PTE or conducting a capture efficiency test using a temporary total enclosure. You cannot count air flowing from a spray booth air seal into a spray booth as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless you elect to treat that spray booth air seal as a natural draft opening. You cannot count air flowing from a bake oven air seal into a bake oven as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless you elect to treat that bake oven air seal as a natural draft opening.

(a) **Assuming 100 percent capture efficiency.** You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off and coating curing and drying occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) **Measuring capture efficiency.** If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the five procedures described in paragraphs (c) through (g) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time.

(c) **Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.** The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied, and all areas where emissions from these applied coatings and thinners subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.
(2) Use Method 204A or F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating and thinner used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings and thinners used in the coating operation during each capture efficiency test run.

\[ TVH_{used} = \sum_{i=1}^{n} (TVH_i) (Vol_i) (D_i) \]  \hspace{1cm} (Eq. 1)

Where:

- \( TVH_i \) = Mass fraction of TVH in coating or thinner, \( i \), used in the coating operation during the capture efficiency test run, kg TVH per kg material.
- \( Vol_i \) = Total volume of coating or thinner, \( i \), used in the coating operation during the capture efficiency test run, liters.
- \( D_i \) = Density of coating or thinner, \( i \), kg material per liter material.
- \( n \) = Number of different coatings and thinners used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:

\[ CE = \frac{TVH_{used} - TVH_{uncaptured}}{TVH_{used}} \times 100 \]  \hspace{1cm} (Eq. 2)

Where:

- \( CE \) = Capture efficiency of the emission capture system vented to the add-on control device, percent.
- \( TVH_{used} \) = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.
- \( TVH_{uncaptured} \) = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) Gas-to-gas protocol using a temporary total enclosure or a building enclosure. The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured.
Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied, and all areas where emissions from these applied coatings and thinners subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously or sequentially measured in each duct, and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

\[
\text{CE} = \frac{TVH_{\text{captured}}}{TVH_{\text{captured}} + TVH_{\text{uncaptured}}} \times 100 \quad \text{(Eq. 3)}
\]

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH\text{captured} = \text{Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.}

TVH\text{uncaptured} = \text{Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.}

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) Panel testing to determine the capture efficiency of flash-off or bake oven emissions. You may conduct panel testing to determine the capture efficiency of flash-off or bake oven emissions using ASTM Method D5087-02, “Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)” (incorporated by reference,
see §63.14), ASTM Method D6266-00a, “Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)” (incorporated by reference, see §63.14), or the guidelines presented in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You may conduct panel testing on representative coatings as described in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). The results of these panel testing procedures are in units of mass of VOC per volume of coating solids deposited and must be converted to a percent value for use in this subpart. If you panel test representative coatings, then you may convert the panel test result for each representative coating either to a unique percent capture efficiency for that coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of this section; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the volume of coating solids deposited per volume of coating used and for the mass of VOC per volume of coating, and average values for the group of coatings for volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of this section. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density, and mass fraction VOC in Equations 4 through 6 of this section. Panel test results expressed in units of mass of VOC per volume of coating solids deposited must be converted to percent capture efficiency using Equation 4 of this section. (An alternative for using panel test results expressed in units of mass of VOC per mass of coating solids deposited is presented in paragraph (e)(3) of this section.)

\[
CE_i = \left(\frac{P_{v,i}}{Vs_{dep,i}}\right) \left(\frac{100}{\text{VOC}_i}\right) \quad (\text{Eq. 4})
\]

Where:

- \(CE_i\) = Capture efficiency for coating, i, or for the group of coatings, including coating, i, for the flash-off area or bake oven for which the panel test is conducted, percent.
- \(P_{v,i}\) = Panel test result for coating, i, or for the coating representing coating, i, in the panel test, kg of VOC per liter of coating solids deposited.
- \(Vs_{dep,i}\) = Volume of coating solids deposited per volume of coating used for coating, i, or composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, liter of coating solids deposited per liter of coating used.
- \(\text{VOC}_i\) = Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, kg per liter, from Equation 6 of this section.

(1) Calculate the volume of coating solids deposited per volume of coating used for coating, i, or the composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 5 of this section:

\[
Vs_{dep,i} = \left(V_{s,i}\right) \left(TE_{f,i}\right) \quad (\text{Eq. 5})
\]

Where:

- \(Vs_{dep,i}\) = Volume of coating solids deposited per volume of coating used for coating, i, or composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, liter of coating solids deposited per liter of coating used.
Vs,i = Volume fraction of coating solids for coating, i, or average volume fraction of coating solids for the group of coatings including coating, i, liter coating solids per liter coating, determined according to §63.3161(f).

TEc,i = Transfer efficiency of coating, i, or average transfer efficiency for the group of coatings including coating, i, in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to §63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)

(2) Calculate the mass of VOC per volume of coating for coating, i, or the composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg, using Equation 6 of this section:

\[ \text{VOC}_i = \left( \frac{D_{c,i}}{W_{\text{VOC},i}} \right) \left( \frac{W_{\text{VOC},i}}{\text{VOC}_i} \right) \quad (\text{Eq. 6}) \]

Where:

\( \text{VOC}_i \) = Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg VOC per liter coating.

\( D_{c,i} \) = Density of coating, i, or average density of the group of coatings, including coating, i, kg coating per liter coating, density determined according to §63.3151(b).

\( W_{\text{VOC},i} \) = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings, including coating, i, kg VOC per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in Section 9 of “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

(3) As an alternative, you may choose to express the results of your panel tests in units of mass of VOC per mass of coating solids deposited and convert such results to a percent using Equation 7 of this section. If you panel test representative coatings, then you may convert the panel test result for each representative coating either to a unique percent capture efficiency for each coating grouped with that representative coating by using coating specific values for the mass of coating solids deposited per mass of coating used, mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the mass of coating solids deposited per mass of coating used and average values for the mass of VOC per volume of coating, average values for the group of coatings for mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the mass of coating solids deposited per mass of coating used, mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section. Panel test results expressed in units of mass of VOC per mass of coating solids deposited must be converted to percent capture efficiency using Equation 7 of this section:

\[ \text{CE}_i = \left( \frac{P_{m,i}}{W_{\text{VOC},i}} \right) \left( \frac{100}{W_{\text{VOC},i}} \right) \quad (\text{Eq. 7}) \]

Where:

\( \text{CE}_i \) = Capture efficiency for coating, i, or for the group of coatings including coating, i, for the flash-off area or bake oven for which the panel test is conducted, percent.

\( P_{m,i} \) = Panel test result for coating, i, or for the coating representing coating, i, in the panel test, kg of VOC per kg of coating solids deposited.
\[ W_{\text{sdep},i} = \text{Mass of coating solids deposited per mass of coating used for coating, } i, \text{ or composite mass of coating solids deposited per mass of coating used for the group of coatings, including coating, } i, \text{ in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg of solids deposited per kg of coating used, from Equation 8 of this section.} \]

\[ W_{\text{voc},i} = \text{Mass fraction of VOC in coating, } i, \text{ or average mass fraction of VOC for the group of coatings, including coating, } i, \text{ kg VOC per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in Section 9 of "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).} \]

(4) Calculate the mass of coating solids deposited per mass of coating used for each coating or the composite mass of coating solids deposited per mass of coating used for each group of coatings used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 8 of this section:

\[ W_{\text{sdep},i} = \left( W_{s,i} \right) \left( TE_{c,i} \right) \quad \text{(Eq. 8)} \]

Where:

\[ W_{\text{sdep},i} = \text{Mass of coating solids deposited per mass of coating used for coating, } i, \text{ or composite mass of coating solids deposited per mass of coating used for the group of coatings including coating, } i, \text{ in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg coating solids deposited per kg coating used.} \]

\[ W_{s,i} = \text{Mass fraction of coating solids for coating, } i, \text{ or average mass fraction of coating solids for the group of coatings including coating, } i, \text{ kg coating solids per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).} \]

\[ TE_{c,i} = \text{Transfer efficiency of coating, } i, \text{ or average transfer efficiency for the group of coatings including coating, } i, \text{ in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to §63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)} \]

(f) Alternative capture efficiency procedure. As an alternative to the procedures specified in paragraphs (c) through (e) and (g) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

(g) Panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings. You may conduct panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings using the procedure in appendix A to this subpart.


§63.3166 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by §63.3160. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.
(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. The ANSI/ASME PTC 19.10-1981, “Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]” (incorporated by reference, see §63.14), may be used as an alternative to Method 3B.

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million by volume (ppmv) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppmv or less at the control device outlet.

(3) Use Method 25A if the add-control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume, dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

\[
M_f = Q_{sd} C_c (12) (0.0416)(10^{-6})
\]  
(Eq. 1)

Where:

\(M_f\) = Total gaseous organic emissions mass flow rate, kg per hour (kg/h).

\(C_c\) = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmv, dry basis.

\(Q_{sd}\) = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters per hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m³) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency using Equation 2 of this section:
Where:

\[ DRE = \frac{M_{fr} - M_{fo}}{M_{fr}} \times 100 \]  \hspace{1cm} (Eq. 2)

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

\( M_{fr} \) = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

\( M_{fo} \) = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§63.3167 How do I establish the add-on control device operating limits during the performance test?

During the performance test required by §63.3160 and described in §§63.3164 and 63.3166, you must establish the operating limits required by §63.3093 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.3093.

(a) Thermal oxidizers. If your add-on control device is a thermal oxidizer, establish the operating limit according to paragraphs (a)(1) through (3) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use all valid data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum 3-hour average operating limit for your thermal oxidizer.

(3) As an alternative, if the latest operating permit issued before April 26, 2007, for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you do not have an operating permit for the thermal oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the combustion temperature maintained during the performance test as the minimum operating limit for a thermal oxidizer, then you must keep the combustion temperature set point on that thermal oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that thermal oxidizer and the average combustion temperature maintained during the performance test for that thermal oxidizer.

(b) Catalytic oxidizers. If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) through (3) or paragraphs (b)(4) through (6) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.
(2) Use all valid data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The minimum 3-hour average operating limits for your catalytic oxidizer are the average temperature just before the catalyst bed maintained during the performance test of that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test of that catalytic oxidizer, except during periods of low production, the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test of that catalytic oxidizer.

(3) As an alternative, if the latest operating permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limits for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test for that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limits for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test for that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test as the minimum operating limits for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed on that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer.

(4) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(6) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use all valid data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(5) If the latest operating permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test as the minimum operating limit for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed on that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer.

(6) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(4) or (b)(5) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(6)(i) through (iii) of this section.
(i) Annual sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

(ii) Monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst, then you must conduct a new performance test to determine destruction efficiency according to §63.3166. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(c) Regenerative carbon adsorbers. If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) Condensers. If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use all valid data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum 3-hour average operating limit for your condenser.

(e) Concentrators. If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the desorption gas inlet temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use all valid data collected during the performance test to calculate and record the average desorption gas inlet temperature. The minimum operating limit for the concentrator is 8 degrees Celsius (15 degrees Fahrenheit) below the average desorption gas inlet temperature maintained during the performance test for that concentrator. You must keep the set point for the desorption gas inlet temperature no lower than 6 degrees Celsius (10 degrees Fahrenheit) below the lower of that set point during the performance test for that concentrator and the average desorption gas inlet temperature maintained during the performance test for that concentrator.

(f) Emission capture systems. For each capture device that is not part of a PTE that meets the criteria of §63.3165(a) and that is not capturing emissions from a downdraft spray booth or from a flash-off area or bake oven associated with a downdraft spray booth, establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by §63.3160 and described in §§63.3164 and 63.3165, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.
(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device, using all valid data. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.


§63.3168 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) General. You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally-spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) Capture system bypass line. You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) Flow control position indicator. Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) Car-seal or lock-and-key valve closures. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month.
(iii) **Valve closure monitoring.** Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) **Automatic shutdown system.** Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in §63.3120.

(c) **Thermal oxidizers and catalytic oxidizers.** If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used to treat desorbed concentrate streams from concentrators or carbon adsorbers), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor upstream of the catalyst bed. If you establish the operating parameters for a catalytic oxidizer under §63.3167(b)(1) through (3), you must also install a gas temperature monitor downstream of the catalyst bed. The temperature monitors must be in the gas stream immediately before and after the catalyst bed to measure the temperature difference across the bed. If you establish the operating parameters for a catalytic oxidizer under §63.3167(b)(4) through (6), you need not install a gas temperature monitor downstream of the catalyst bed.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a)(1) through (6) and (c)(3)(i) through (vii) of this section for each gas temperature monitoring device.

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

(ii) Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.

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

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

(v) 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 nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.

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

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

(d) **Regenerative carbon adsorbers.** If you are using a regenerative carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.
(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent, capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a measurement sensitivity of 1 percent of the temperature (as expressed in degrees Fahrenheit) recorded or 1 degree Fahrenheit, whichever is greater, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) **Condensers.** If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a)(1) through (6) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a measurement sensitivity of 1 percent of the temperature (expressed in degrees Fahrenheit) recorded or 1 degree Fahrenheit, whichever is greater.

(2) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(f) **Concentrators.** If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a)(1) through (6) and (c)(3) of this section.

(g) **Emission capture systems.** The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (6) and (g)(1)(i) through (iv) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a)(1) through (6) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure tap(s) in a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Check pressure tap pluggage daily.

(iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer’s specified maximum operating pressure range or install a new pressure sensor.

(vi) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.
§63.3169 What are the requirements for a capture system or add-on control device which is not taken into account when demonstrating compliance with the applicable emission limitations?

You may have capture systems or add-on control devices which you choose not to take into account when demonstrating compliance with the applicable emission limitations. For any such capture system or add-on control device, you are not required to comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, or removal efficiency. If, at a later date, you decide to take any such capture system or add-on control device into account when demonstrating compliance with the emission limitations, then at that time you must comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, and removal efficiency, as applicable, for that capture system or add-on control device.

[72 FR 20235, Apr. 24, 2007]

Compliance Requirements for the Combined Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations and the Separate Electrodeposition Primer Emission Limitations

§63.3170 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) New and reconstructed affected sources. For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of §63.3160.

(b) Existing affected sources. For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of §63.3160.

§63.3171 How do I demonstrate initial compliance?

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(b) or §63.3091(b); and the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in §63.3092(a) or (b).

(b) Compliance with operating limits. Except as provided in §63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.3093, using the procedures specified in §§63.3167 and 63.3168.

(c) Compliance with work practice requirements. You must develop, implement, and document your implementation of the work practice plans required by §63.3094(b) and (c) during the initial compliance period, as specified in §63.3130.

(d) Compliance with emission limits. You must follow the procedures in §63.3161(e) through (n), excluding materials used in electrodeposition primer operations, to demonstrate compliance with the applicable emission limit in §63.3090(b) or §63.3091(b). You must follow the procedures in paragraph (e) of this section to demonstrate compliance with the emission limit in §63.3092(a), or paragraphs (f) through (g) of this section to demonstrate compliance with the emission limitations in §63.3092(b).

(e) Determine the mass fraction of each organic HAP in each material used in the electrodeposition primer operation. You must determine the mass fraction of each organic HAP for each material used in the electrodeposition primer operation during the compliance period by using one of the options in paragraphs (e)(1) through (3) of this section.
(1) **Method 311 (appendix A to 40 CFR part 63).** You may use Method 311 for determining the mass fraction of each organic HAP.

(2) **Alternative method.** You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(3) **Information from the supplier or manufacturer of the material.** You may rely on information other than that generated by the test methods specified in paragraphs (e)(1) and (2) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. If there is a disagreement between such information and results of a test conducted according to paragraph (e)(1) or (2) of this section, then the test method results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(f) **Capture of electrodeposition bake oven emissions.** You must show that the electrodeposition bake oven meets the criteria in sections 5.3 through 5.5 of Method 204 of appendix M to 40 CFR part 51 and directs all of the exhaust gases from the bake oven to an add-on control device. For purposes of this showing, an electrodeposition bake oven air seal is not considered a natural draft opening provided you demonstrate that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. You may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations. You cannot count air flowing from an electrodeposition bake oven air seal into an electrodeposition bake oven as air flowing through a natural draft opening unless you elect to treat that electrodeposition bake oven air seal as a natural draft opening.

(g) **Control of electrodeposition bake oven emissions.** Determine the efficiency of each control device on each electrodeposition bake oven using the procedures in §§63.3164 and 63.3166.

(h) **Compliance demonstration.** To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(b) or §63.3091(b); the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in §63.3092(a) or (b). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) was less than or equal to the applicable emission limit in §63.3090(b) or §63.3091(b), and the organic HAP emissions from the electrodeposition primer operation met the applicable emissions limitations in §63.3092(a) or (b), and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094.


§63.3172  [Reserved]

§63.3173  **How do I demonstrate continuous compliance with the emission limitations?**

(a) To demonstrate continuous compliance with the applicable emission limit in §63.3090(b) or §63.3091(b), the organic HAP emission rate for each compliance period determined according to the procedures in §63.3171 must be equal to or less than the applicable emission limit in §63.3090(b) or §63.3091(b). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in §63.3170 is a compliance period consisting of that month. You must perform the calculations in §63.3171 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in §63.3090(b) or §63.3091(b), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).
(c) You must meet the requirements of §63.3163(c) through (j).

§63.3174 What are the requirements for a capture system or add-on control device which is not taken into account when demonstrating compliance with the applicable emission limitations?

You may have capture systems or add-on control devices which you choose not to take into account when demonstrating compliance with the applicable emission limitations. For any such capture system or add-on control device, you are not required to comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, or removal efficiency. If, at a later date, you decide to take any such capture system or add-on control device into account when demonstrating compliance with the emission limitations, then at that time you must comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, and removal efficiency, as applicable, for that capture system or add-on control device.

[72 FR 20236, Apr. 24, 2007]

Other Requirements and Information

§63.3175 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, EPA, or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your 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 subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the work practice standards in §63.3094 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.

§63.3176 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in the General Provisions of this part, and in this section as follows:

Add-on control device means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Add-on control device efficiency means the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced into the control device, expressed as a percentage.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together.
Adhesive and sealer material means adhesives, sealers and thinners added to adhesives or sealers.

Anti-chip coating means a specialty type of coating designed to reduce stone chipping damage. Anti-chip coating may be applied to broad areas of the vehicle or to selected vehicle surfaces that are most vulnerable to impingement by stones and other road debris. Anti-chip coating is typically applied after the electrodeposition primer and before the topcoat. Anti-chip coating is a type of primer-surfacer.

Automobile means a motor vehicle designed to carry up to eight passengers, excluding vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property. See also Light-duty truck.

Automobile and light-duty truck assembly plant means a facility which assembles automobiles or light-duty trucks, including coating facilities and processes.

Bake oven air seal means an entry or entry vestibule to or an exit or exit vestibule from a bake oven which isolates the bake oven from the area immediately preceding (for an entry or entry vestibule) or immediately following (for an exit or exit vestibule) the bake oven. No significant VOC generating activity takes place in a bake oven air seal. Fresh air is supplied into a bake oven air seal and is then directed in part into the bake oven and in part into the area immediately preceding or immediately following the bake oven. All types of bake ovens, including ovens associated with spray booths and electrodeposition primer bake ovens, may have bake oven air seals.

Basecoat/clearcoat means a topcoat system applied to exterior and selected interior vehicle surfaces primarily to provide an aesthetically pleasing appearance and acceptable durability performance. It consists of a layer of pigmented basecoat color coating, followed directly by a layer of a clear or semitransparent coating. It may include multiple layers of color coats or tinted clear materials.

Blackout coating means a type of specialty coating applied on selected vehicle surfaces (including areas of the engine compartment visible through the grill, and window and pillar trim) to provide a cosmetic appearance. Typically black or dark gray color. Blackout coating may be included in either the primer-surfacer or topcoat operations.

Body part means exterior parts such as hoods, fenders, doors, roof, quarter panels, decklids, tail gates, and cargo beds. Body parts were traditionally made of sheet metal, but now are also made of plastic. Bumpers, fascia, and cladding are not body parts.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or capture system efficiency means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings, both at the point of application and at subsequent points where emissions from the coatings occur, such as flash-off, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Catalytic oxidizer means a device for oxidizing pollutants or waste materials via flame and heat incorporating a catalyst to aid the combustion at lower operating temperature.

Chip resistant edge primer means an anti-chip coating applied to the leading edge of parts such as the hood or roof.

Cleaning material means a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried (e.g., depainting) or wet coating from a substrate before or after coating application; or from equipment associated with a coating operation, such as spray booths, spray guns, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, primers, deadeners, and maskants.
Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

*Coating operation* means equipment used to apply coating to a substrate (coating application) and to dry or cure the coating after application. A single coating operation always includes at least the point at which a coating is applied and all subsequent points in the affected source where organic HAP emissions from that coating occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touchup bottles, touchup markers, marking pens, or pinstriping equipment is not a coating operation for the purposes of this subpart. The application of temporary materials such as protective oils and “travel waxes” that are designed to be removed from the vehicle before it is delivered to a retail purchaser is not a coating operation for the purposes of this subpart.

*Coating solids* means the nonvolatile portion of the coating.

*Container* means a receptacle, such as a can, vessel, tote, or tank, in which coatings, solvents or cleaning materials are held, stored, mixed, or carried.

*Continuous parameter monitoring system (CPMS)* means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart; used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

*Controlled coating operation* means a coating operation from which some or all of the organic HAP emissions are routed through a *capture system* and an *add-on control device* which are taken into account when demonstrating compliance with an emission limitation in this subpart.

*Day tank* means tank with agitation and pumping system used for mixing and continuous circulation of coatings from the paint storage area to the spray booth area of the paint shop.

*Deadener* means a specialty coating applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment.

*Deadener material* means deadener and thinner added to deadener.

* Deposited solids* means the coating solids which remain on the substrate or object being painted.

*Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; 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 fails to meet any emission limit or 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. A deviation is not always a violation.

*Electrodeposition primer or electrocoating primer* means a process of applying a protective, corrosion-resistant waterborne primer on exterior and interior surfaces that provides thorough coverage of recessed areas. It is a dip coating method that uses an electrical field to apply or deposit the conductive coating onto the part. The object being painted acts as an electrode that is oppositely charged from the particles of paint in the dip tank. Also referred to as E-Coat, Uni-Prime, and ELPO Primer.

*Emission limitation* means an emission limit, operating limit, or work practice standard.

*Final repair* means the operations performed and coating(s) applied to completely-assembled motor vehicles or to parts that are not yet on a completely assembled motor vehicle to correct damage or imperfections in the coating. The curing of the coatings applied in these operations is accomplished at a lower temperature than that used for curing primer-surfacer and topcoat. This lower temperature cure avoids the need to send parts that are not yet on a completely assembled vehicle through the same type of curing process used for primer-surfacer and topcoat and is necessary to protect heat sensitive components on completely assembled motor vehicles.
Flash-off area means the portion of a coating process between the coating application station and the next coating application station or drying oven where solvent begins to evaporate from the coated vehicle.

Glass bonding adhesive means an adhesive used to bond windshield or other glass to an automobile or light-duty truck body.

Glass bonding primer means a primer applied to windshield or other glass, or to body openings to prepare the glass or body openings for the application of glass bonding adhesive, or the installation of adhesive bonded glass.

Guide coat means Primer-surfacer.

In-line repair means the operation performed and coating(s) applied to correct damage or imperfections in the topcoat on parts that are not yet on a completely assembled motor vehicle. The curing of the coatings applied in these operations is accomplished at essentially the same temperature as that used for curing the previously applied topcoat. Also referred to as high bake repair or high bake reprocess. In-line repair is considered part of the topcoat operation.

Light-duty truck means vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property with gross vehicle weight rating of 8,500 lbs or less.

Lower body anti-chip coating means an anti-chip coating applied to lower body surfaces such as rocker panels, valence panels, lower portions of doors, or lower portions of fenders.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §§63.3151 and 63.3161. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Organic HAP content means the mass of organic HAP per mass of coating material.

Other motor vehicle means a self-propelled vehicle designed for transporting persons or property on a street or highway that has a gross vehicle weight rating over 8,500 pounds. You may choose to make the coating of other motor vehicles subject to this subpart pursuant to §63.3082(c).

Other motor vehicle assembly plant means a facility which assembles other motor vehicles, including coating facilities and processes.

Paint line means a set of coating operations which includes a topcoat operation and, if present, includes electrodeposition primer, primer-surfacer, final repair, glass bonding primer and glass bonding adhesive operations in which the same new automobile or new light-duty truck bodies, or body parts for new automobiles, or new light-duty trucks are coated. The most typical paint line consists of a set of electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations in which the same new automobile or new light-duty truck bodies are coated.

Paint shop means the collection of all areas at the facility in which new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks are phosphated and coated (including application, flash-off, drying and curing of electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, glass bonding adhesive, deadener, adhesives and sealers); all coating operations added to the affected source pursuant to §63.3082(c); all areas at the facility in which substrates or equipment are cleaned relating to the coating of new automobile or new light-duty truck bodies, the coating of body parts for new automobiles or new light-duty trucks, or
coating operations added to the affected source pursuant to §63.3082(c); and all areas at the facility used for storage, mixing, conveying and waste handling of coatings, thinners and cleaning materials related to the coating of new automobile or new light-duty truck bodies, the coating of body parts for new automobiles or new light-duty trucks, or coating operations added to the affected source pursuant to §63.3082(c). If there is no application of topcoat to new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks at the facility, then for purposes of this subpart the facility does not have a paint shop.

*Permanent total enclosure (PTE)* means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

*Plastic or composites molding facility* means a facility where the purchase cost of capital equipment used for plastic or composites molding, including presses, tooling, and associated material processing and handling equipment, is greater than the purchase cost of capital equipment used for the surface coating of new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks.

*Primer-surfacer* means an intermediate protective coating applied on the electrodeposition primer and under the topcoat. Primer-surfacer provides adhesion, protection, and appearance properties to the total finish. Primer-surfacer may also be called guide coat or surfacer. Anti-chip coating is a type of primer-surfacer.

*Purge/clean operation* means the process of flushing paint out and cleaning the spray lines when changing colors or to remove undesired material. It includes use of air and solvents to clean the lines.

*Purge capture* means the capture of purge solvent and materials into a closed collection system immediately after purging the system. It is used to prevent the release of organic HAP emissions and includes the disposal of the captured purge material.

*Purge material* means the coating and associated cleaning solvent materials expelled from the spray system during the process of cleaning the spray lines and applicators when color-changing or to maintain the cleanliness of the spray system.

*Protective oil* means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

*Research or laboratory operations* means surface coating for which the primary purpose is research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and that is not part of the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Sealer* means a high solids, high viscosity material, generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating. The primary purpose of sealers is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Also referred to as sealants.

*Spray booth* means a ventilated structure housing automatic and/or manual spray application equipment for coating operations. Includes facilities for the capture and entrapment of particulate overspray.

*Spray booth air seal* means an entry or entry vestibule to or exit or exit vestibule from a spray booth which isolates the spray booth from the area immediately preceding (for an entry or entry vestibule) or immediately following (for an exit or exit vestibule) the spray booth. No coating application or other VOC generating activity takes place in a spray booth air seal. Fresh air is supplied into a spray booth air seal and is then directed in part into the spray booth and in part into the area immediately preceding or immediately following the spray booth.

*Startup, initial* means the first time equipment is used in a facility to produce a salable product.
Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called “depainting.”

Surfacer means Primer-surfacer.

Tack-wipe means solvent impregnated cloth used to remove dust from surfaces prior to application of coatings.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thermal oxidizer means a device for oxidizing air pollutants or waste materials via flame and heat.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Topcoat means the final coating system applied to provide the final color and/or a protective finish. The topcoat may be a monocoat color or basecoat/clearcoat system. In-line repair and two-tone are part of topcoat.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Touchup bottle means a coating container with a volume of 0.25 liter or less used with a brush or other non-atomizing applicator.

Transfer efficiency means the ratio of the amount of coating solids deposited onto the surface of the object to the total amount of coating solids sprayed while applying the coating to the object.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Underbody anti-chip coating means an anti-chip coating applied to the underbody or wheel wells primarily for the purpose of protecting these areas of the vehicle from stone chipping.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

Table 1 to Subpart III of Part 63—Operating Limits for Capture Systems and Add-On Control Devices

If you are required to comply with operating limits by §63.3093, you must comply with the applicable operating limits in the following table

<table>
<thead>
<tr>
<th>For the following device . . .</th>
<th>You must meet the following operating limit . . .</th>
<th>And you must demonstrate continuous compliance with the operating limit by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Thermal oxidizer</td>
<td>a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3167(a)</td>
<td>i. Collecting the combustion temperature data according to §63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above temperature limit.</td>
</tr>
</tbody>
</table>
## 2. Catalytic oxidizer

<table>
<thead>
<tr>
<th>a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.3167(b); and either</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Collecting the temperature data temperature according to §63.3168(c);</td>
</tr>
<tr>
<td>ii. Reducing the data to 3-hour block averages; and</td>
</tr>
<tr>
<td>iii. Maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to §63.3167(b)(2); or</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Collecting the temperature data according to §63.3168(c);</td>
</tr>
<tr>
<td>ii. Reducing the data to 3-hour block averages; and</td>
</tr>
<tr>
<td>iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit; or</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c. Develop and implement an inspection and maintenance plan according to §63.3167(b)(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Maintaining an up-to-date inspection maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by §63.3167(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.</td>
</tr>
</tbody>
</table>

## 3. Regenerative carbon adsorber

<table>
<thead>
<tr>
<th>a. The total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to §63.3167(c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Measuring the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle according to §63.3168(d); and</td>
</tr>
<tr>
<td>ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. The temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to §63.3167(c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.3168(d); and</td>
</tr>
<tr>
<td>ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.</td>
</tr>
</tbody>
</table>

## 4. Condenser

<table>
<thead>
<tr>
<th>a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.3167(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Collecting the condenser outlet (product side) gas temperature according to §63.3168(e);</td>
</tr>
<tr>
<td>ii. Reducing the data to 3-hour block averages; and</td>
</tr>
<tr>
<td>iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.</td>
</tr>
</tbody>
</table>

## 5. Concentrators, including zeolite wheels and rotary carbon adsorbers

<table>
<thead>
<tr>
<th>a. The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to §63.3167(e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Collecting the temperature data according to §63.3168(f);</td>
</tr>
<tr>
<td>ii. Reducing the data to 3-hour block averages; and</td>
</tr>
<tr>
<td>iii. Maintaining the 3-hour average temperature at or above the temperature limit.</td>
</tr>
</tbody>
</table>

## 6. Emission capture system that is a PTE

<table>
<thead>
<tr>
<th>a. The direction of the air flow at all times must be into the enclosure; and either</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or</td>
</tr>
<tr>
<td>ii. The pressure drop across the enclosure must be at least 200 feet per minute.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.3168(g)(1) or the pressure drop across the enclosure according to §63.3168(g)(2); and</td>
</tr>
<tr>
<td>ii. Maintaining the facial velocity of air flow</td>
</tr>
</tbody>
</table>
must be at least 0.007 inch water, as established in Method 204 of appendix M to 40 CFR part 51 through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow onto the enclosure at all times.

7. Emission capture system that is not a PTE

a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to §63.3167(f). This applies only to capture devices that are not part of a PTE that meets the criteria of §63.3165(a) and that are not capturing emissions from a downdraft spray booth or from a flashoff area or bake oven associated with a downdraft spray booth

i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.3168(g);

ii. Reducing the data to 3-hour block averages; and

iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.


Table 2 to Subpart IIII of Part 63—Applicability of General Provisions to Subpart IIII of Part 63

You must comply with the applicable General Provisions requirements according to the following table

<table>
<thead>
<tr>
<th>Citation</th>
<th>Subject</th>
<th>Applicable to subpart IIII</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>§63.1(a)(1)-(12)</td>
<td>General Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.1(b)(1)-(3)</td>
<td>Initial Applicability Determination</td>
<td>Yes</td>
<td>Applicability to subpart III is also specified in §63.3081.</td>
</tr>
<tr>
<td>§63.1(c)(1)</td>
<td>Applicability After Standard Established</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.1(c)(2)</td>
<td>Applicability of Permit Program for Area Sources</td>
<td>No</td>
<td>Area sources are not subject to subpart III.</td>
</tr>
<tr>
<td>§63.1(c)(5)</td>
<td>Extensions and Notifications</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.1(e)</td>
<td>Applicability of Permit Program Before Relevant Standard is Set</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.2</td>
<td>Definitions</td>
<td>Yes</td>
<td>Additional definitions are specified in §63.3176.</td>
</tr>
<tr>
<td>§63.3(a)-(c)</td>
<td>Units and Abbreviations</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.4(a)(1)-(5)</td>
<td>Prohibited Activities</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.4(b)-(c)</td>
<td>Circumvention/Fragmentation</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.5(a)</td>
<td>Preconstruction Review Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.5(b)(1)-(6)</td>
<td>Requirements for Existing, Newly Constructed, and Reconstructed Sources</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.5(d)</td>
<td>Application for Approval of Construction/Reconstruction</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.5(e)</td>
<td>Approval of Construction/Reconstruction</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Rule</td>
<td>Description</td>
<td>Applicability</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>§63.5(f)</td>
<td>Approval of Construction/Reconstruction Based on Prior State Review</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(a)</td>
<td>Compliance With Standards and Maintenance Requirements—Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(1)-(7)</td>
<td>Compliance Dates for New and Reconstructed Sources</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Section 63.3083 specifies the compliance dates.</td>
<td></td>
</tr>
<tr>
<td>§63.6(c)(1)-(5)</td>
<td>Compliance Dates for Existing Sources</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Section 63.3083 specifies the compliance dates.</td>
<td></td>
</tr>
<tr>
<td>§63.6(e)(1)-(2)</td>
<td>Operation and Maintenance</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(e)(3)</td>
<td>SSMP</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Only sources using an add-on control device to comply with the standard must complete SSMP.</td>
<td></td>
</tr>
<tr>
<td>§63.6(f)(1)</td>
<td>Compliance Except During Startup, Shutdown, and Malfunction</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applies only to sources using an add-on control device to comply with the standards.</td>
<td></td>
</tr>
<tr>
<td>§63.6(f)(2)-(3)</td>
<td>Methods for Determining Compliance</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(g)(1)-(3)</td>
<td>Use of an Alternative Standard</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(h)</td>
<td>Compliance With Opacity/Visible Emission Standards</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subpart III does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).</td>
<td></td>
</tr>
<tr>
<td>§63.6(i)</td>
<td>Extension of Compliance</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(j)</td>
<td>Presidential Compliance Exemption</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.7(a)(1)</td>
<td>Performance Test Requirements—Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applies to all affected sources. Additional requirements for performance testing are specified in §§63.3164 and 63.3166.</td>
<td></td>
</tr>
<tr>
<td>§63.7(a)(2)</td>
<td>Performance Test Requirements—Dates</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards. Section 63.3160 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).</td>
<td></td>
</tr>
<tr>
<td>§63.7(a)(3)</td>
<td>Performance Tests Required By the Administrator</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.7(b)-(e)</td>
<td>Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing Conditions During Test</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.</td>
<td></td>
</tr>
<tr>
<td>§63.7(f)</td>
<td>Performance Test Requirements—Use of Alternative Test Method</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applies to all test methods except those used to determine capture system efficiency.</td>
<td></td>
</tr>
<tr>
<td>§63.7(g)-(h)</td>
<td>Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.</td>
<td></td>
</tr>
<tr>
<td>§63.8(a)(1)-(3)</td>
<td>Monitoring Requirements—Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards.</td>
<td></td>
</tr>
<tr>
<td>§63.8(a)(4)</td>
<td>Additional Monitoring Requirements</td>
<td>No</td>
<td>Subpart III does not have monitoring requirements for flares.</td>
</tr>
<tr>
<td>§63.8(b)</td>
<td>Conduct of Monitoring</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.8(c)(1)-(3)</td>
<td>Continuous Monitoring Systems (CMS) Operation and Maintenance</td>
<td>Yes</td>
<td>Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for CMS operations and maintenance are specified in §63.3168.</td>
</tr>
<tr>
<td>§63.8(c)(4)</td>
<td>CMS</td>
<td>No</td>
<td>Section 63.3168 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply with the standards.</td>
</tr>
<tr>
<td>§63.89(c)(5)</td>
<td>COMS</td>
<td>No</td>
<td>Subpart III does not have opacity or visible emission standards.</td>
</tr>
<tr>
<td>§63.8(c)(6)</td>
<td>CMS Requirements</td>
<td>No</td>
<td>Section 63.3168 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply with the standards.</td>
</tr>
<tr>
<td>§63.8(c)(7)</td>
<td>CMS Out-of-Control Periods</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>§63.8(c)(8)</td>
<td>CMS Out-of-Control Periods Reporting</td>
<td>No</td>
<td>Section 63.3120 requires reporting of CMS out-of-control periods.</td>
</tr>
<tr>
<td>§63.8(d)-(e)</td>
<td>Quality Control Program and CMS Performance Evaluation</td>
<td>No</td>
<td>Subpart III does not require the use of continuous emissions monitoring systems.</td>
</tr>
<tr>
<td>§63.8(f)(1)-(5)</td>
<td>Use of an Alternative Monitoring Method</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.8(f)(6)</td>
<td>Alternative to Relative Accuracy Test</td>
<td>No</td>
<td>Subpart III does not require the use of continuous emissions monitoring systems.</td>
</tr>
<tr>
<td>§63.8(g)(1)-(5)</td>
<td>Data Reduction</td>
<td>No</td>
<td>Sections 63.3167 and 63.3168 specify monitoring data reduction.</td>
</tr>
<tr>
<td>§63.9(a)-(d)</td>
<td>Notification Requirements</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.9(e)</td>
<td>Notification of Performance Test</td>
<td>Yes</td>
<td>Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.</td>
</tr>
<tr>
<td>§63.9(f)</td>
<td>Notification of Visible Emissions/Opacity Test</td>
<td>No</td>
<td>Subpart III does not have opacity or visible emission standards.</td>
</tr>
<tr>
<td>§63.9(g)(1)-(3)</td>
<td>Additional Notifications When Using CMS</td>
<td>No</td>
<td>Subpart III does not require the use of continuous emissions monitoring systems.</td>
</tr>
<tr>
<td>§63.9(h)</td>
<td>Notification of Compliance Status</td>
<td>Yes</td>
<td>Section 63.3110 specifies the dates for submitting the notification of compliance status.</td>
</tr>
<tr>
<td>§63.9(i)</td>
<td>Adjustment of Submittal Deadlines</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.9(j)</td>
<td>Change in Previous Information</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(a)</td>
<td>Recordkeeping/Reporting—Applicability and General Information</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(1)</td>
<td>General Recordkeeping Requirements</td>
<td>Yes</td>
<td>Additional requirements are specified in §§63.3130 and 63.3131.</td>
</tr>
<tr>
<td>§63.10(b)(2)(i)-(v)</td>
<td>Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS</td>
<td>Yes</td>
<td>Requirements for startup, shutdown, and malfunction records only apply to capture systems and add-on control devices used to comply with the standards.</td>
</tr>
<tr>
<td>§63.10(b)(2)(vi)-(xi)</td>
<td>Records</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(xii)</td>
<td>Records</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(3)</td>
<td>Recordkeeping Requirements for Applicability Determinations</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(c)(1)-(6)</td>
<td>Additional Recordkeeping Requirements for Sources with CMS</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(c)(7)-(8)</td>
<td></td>
<td>No</td>
<td>The same records are required in §63.3120(a)(6).</td>
</tr>
<tr>
<td>§63.10(c)(9)-(15)</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(1)</td>
<td>General Reporting Requirements</td>
<td>Yes</td>
<td>Additional requirements are specified in §63.3120.</td>
</tr>
<tr>
<td>§63.10(d)(2)</td>
<td>Report of Performance Test Results</td>
<td>Yes</td>
<td>Additional requirements are specified in §63.3120(b).</td>
</tr>
<tr>
<td>§63.10(d)(3)</td>
<td>Reporting Opacity or Visible Emissions Observations</td>
<td>No</td>
<td>Subpart III does not require opacity or visible emissions observations.</td>
</tr>
<tr>
<td>§63.10(d)(4)</td>
<td>Progress Reports for Sources With Compliance Extensions</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(5)</td>
<td>Startup, Shutdown, and Malfunction Reports</td>
<td>Yes</td>
<td>Applies only to capture systems and add-on control devices used to comply with the standards.</td>
</tr>
<tr>
<td>§63.10(e)(1)-(2)</td>
<td>Additional CMS Reports</td>
<td>No</td>
<td>Subpart III does not require the use of continuous emissions monitoring systems.</td>
</tr>
<tr>
<td>§63.10(e)(3)</td>
<td>Excess Emissions/CMS Performance Reports</td>
<td>No</td>
<td>Section 63.3120(b) specifies the contents of periodic compliance reports.</td>
</tr>
<tr>
<td>§63.10(e)(4)</td>
<td>COMS Data Reports</td>
<td>No</td>
<td>Subpart III does not specify requirements for opacity or COMS.</td>
</tr>
<tr>
<td>§63.10(f)</td>
<td>Recordkeeping/Reporting Waiver</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.11</td>
<td>Control Device Requirements/Flares</td>
<td>No</td>
<td>Subpart III does not specify use of flares for compliance.</td>
</tr>
<tr>
<td>§63.12</td>
<td>State Authority and Delegations</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.13</td>
<td>Addresses</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.14</td>
<td>Incorporation by Reference</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.15</td>
<td>Availability of Information/Confidentiality</td>
<td>Yes.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3 to Subpart III of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer’s formulation data.

<table>
<thead>
<tr>
<th>Solvent/solvent blend</th>
<th>CAS. No.</th>
<th>Average organic HAP mass fraction</th>
<th>Typical organic HAP, percent by mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Toluene</td>
<td>108-88-3</td>
<td>1.0</td>
<td>Toluene.</td>
</tr>
<tr>
<td>2. Xylene(s)</td>
<td>1330-20-7</td>
<td>1.0</td>
<td>Xylenes, ethylbenzene.</td>
</tr>
<tr>
<td>3. Hexane</td>
<td>110-54-3</td>
<td>0.5</td>
<td>n-hexane.</td>
</tr>
<tr>
<td>4. n-Hexane</td>
<td>110-54-3</td>
<td>1.0</td>
<td>n-hexane.</td>
</tr>
<tr>
<td>5. Ethylbenzene</td>
<td>100-41-4</td>
<td>1.0</td>
<td>Ethylbenzene.</td>
</tr>
<tr>
<td>6. Aliphatic 140</td>
<td></td>
<td>0</td>
<td>None.</td>
</tr>
<tr>
<td>7. Aromatic 100</td>
<td></td>
<td>0.02</td>
<td>1% xylene, 1% cumene.</td>
</tr>
<tr>
<td>8. Aromatic 150</td>
<td></td>
<td>0.09</td>
<td>Naphthalene.</td>
</tr>
<tr>
<td>9. Aromatic naphtha</td>
<td>64742-95-6</td>
<td>0.02</td>
<td>1% xylene, 1% cumene.</td>
</tr>
<tr>
<td>10. Aromatic solvent</td>
<td>64742-94-5</td>
<td>0.1</td>
<td>Naphthalene.</td>
</tr>
<tr>
<td>11. Exempt mineral spirits</td>
<td>8032-32-4</td>
<td>0</td>
<td>None.</td>
</tr>
<tr>
<td>12. Ligroines (VM &amp; P)</td>
<td>8032-32-4</td>
<td>0</td>
<td>None.</td>
</tr>
<tr>
<td>13. Lactol spirits</td>
<td>64742-89-6</td>
<td>0.15</td>
<td>Toluene.</td>
</tr>
<tr>
<td>14. Low aromatic white spirit</td>
<td>64742-82-1</td>
<td>0</td>
<td>None.</td>
</tr>
<tr>
<td>15. Mineral spirits</td>
<td>64742-88-7</td>
<td>0.01</td>
<td>Xylenes.</td>
</tr>
<tr>
<td>16. Hydrotreated naphtha</td>
<td>64742-48-9</td>
<td>0</td>
<td>None.</td>
</tr>
<tr>
<td>17. Hydrotreated light distillate</td>
<td>64742-47-8</td>
<td>0.001</td>
<td>Toluene.</td>
</tr>
<tr>
<td>18. Stoddard solvent</td>
<td>8052-41-3</td>
<td>0.01</td>
<td>Xylenes.</td>
</tr>
<tr>
<td>19. Super high-flash naphtha</td>
<td>64742-95-6</td>
<td>0.05</td>
<td>Xylenes.</td>
</tr>
<tr>
<td>20. Varso® solvent</td>
<td>8052-49-3</td>
<td>0.01</td>
<td>0.5% xylenes, 0.5% ethylbenzene.</td>
</tr>
<tr>
<td>21. VM &amp; P naphtha</td>
<td>64742-89-8</td>
<td>0.06</td>
<td>3% toluene, 3% xylene.</td>
</tr>
<tr>
<td>22. Petroleum distillate mixture</td>
<td>68477-31-6</td>
<td>0.08</td>
<td>4% naphthalene, 4% biphenyl.</td>
</tr>
</tbody>
</table>

### Table 4 to Subpart III of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer’s formulation data.

<table>
<thead>
<tr>
<th>Solvent type</th>
<th>Average organic HAP mass fraction</th>
<th>Typical organic HAP, percent by mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphaticb</td>
<td>0.03</td>
<td>1% Xylene, 1% Toluene, and 1% Ethylbenzene.</td>
</tr>
<tr>
<td>Aromaticc</td>
<td>0.06</td>
<td>4% Xylene, 1% Toluene, and 1% Ethylbenzene.</td>
</tr>
</tbody>
</table>
Appendix A to Subpart IIII of Part 63—Determination of Capture Efficiency of Automobile and Light-Duty Truck Spray Booth Emissions From Solvent-borne Coatings Using Panel Testing

1.0 Applicability, Principle, and Summary of Procedure.

1.1 Applicability.

This procedure applies to the determination of capture efficiency of automobile and light-duty truck spray booth emissions from solvent-borne coatings using panel testing. This procedure can be used to determine capture efficiency for partially controlled spray booths (e.g., automated spray zones controlled and manual spray zones not controlled) and for fully controlled spray booths.

1.2 Principle.

1.2.1 The volatile organic compounds (VOC) associated with the coating solids deposited on a part (or panel) in a controlled spray booth zone (or group of contiguous controlled spray booth zones) partition themselves between the VOC that volatilize in the controlled spray booth zone (principally between the spray gun and the part) and the VOC that remain on the part (or panel) when the part (or panel) leaves the controlled spray booth zone. For solvent-borne coatings essentially all of the VOC associated with the coating solids deposited on a part (or panel) in a controlled spray booth zone that volatilize in the controlled spray booth zone pass through the waterwash and are exhausted from the controlled spray booth zone to the control device.

1.2.2 The VOC associated with the overspray coating solids in a controlled spray booth zone partition themselves between the VOC that volatilize in the controlled spray booth zone and the VOC that are still tied to the overspray coating solids when the overspray coating solids hit the waterwash. For solvent-borne coatings almost all of the VOC associated with the overspray coating solids that volatilize in the controlled spray booth zone pass through the waterwash and are exhausted from the controlled spray booth zone to the control device. The exact fate of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash is unknown. This procedure assumes that none of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash are captured and delivered to the control device. Much of this VOC may become entrained in the water along with the overspray coating solids. Most of the VOC that become entrained in the water along with the overspray coating solids leave the water, but the point at which this VOC leave the water is unknown. Some of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash may pass through the waterwash and be exhausted from the controlled spray booth zone to the control device.

1.2.3 This procedure assumes that the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone, passes through the waterwash and is exhausted from the controlled spray booth zone to the control device is equal to the portion of the VOC associated with the coating solids deposited on a part (or panel) in that controlled spray booth zone that volatilizes in the controlled spray booth zone, passes through the waterwash, and is exhausted from the controlled spray booth zone to the control device. This assumption is equivalent to treating all of the coating solids sprayed in the controlled spray booth zone as if they are deposited coating solids (i.e., assuming 100 percent transfer efficiency) for purposes of using a panel test to determine spray booth capture efficiency.

1.2.4 This is a conservative (low) assumption for the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone. Thus, this assumption results in an underestimate of conservative capture efficiency. The overspray coating solids have more travel time and distance from the spray gun to the waterwash than the deposited coating solids have between the spray gun and the part (or panel). Therefore, the portion of the VOC associated with the overspray coating solids in a controlled spray booth...
zone that volatilizes in the controlled spray booth zone should be greater than the portion of the VOC associated with the coating solids deposited on a part (or panel) in that controlled spray booth zone that volatilizes in that controlled spray booth zone.

1.3 Summary of Procedure.

1.3.1 A panel test is performed to determine the mass of VOC that remains on the panel when the panel leaves a controlled spray booth zone. The total mass of VOC associated with the coating solids deposited on the panel is calculated.

1.3.2 The percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that remains on the panel when the panel leaves the controlled section of the spray booth is then calculated from the ratio of the two previously determined masses. The percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that is captured and delivered to the control device equals 100 minus this percentage. (The mass of VOC associated with the coating solids deposited on the panel which is volatilized and captured in the controlled spray booth zone equals the difference between the total mass of VOC associated with the coating solids deposited on the panel and the mass of VOC remaining with the coating solids deposited on the panel when the panel leaves the controlled spray booth zone.)

1.3.3 The percent of the total VOC associated with the coating sprayed in the controlled spray booth zone that is captured and delivered to the control device is assumed to be equal to the percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that is captured and delivered to the control device. The percent of the total VOC associated with the coating sprayed in the entire spray booth that is captured and delivered to the control device can be calculated by multiplying the percent of the total VOC associated with the coating sprayed in the controlled spray booth zone that is captured and delivered to the control device by the fraction of coating sprayed in the spray booth that is sprayed in the controlled spray booth zone.

2.0 Procedure.

2.1 You may conduct panel testing to determine the capture efficiency of spray booth emissions. You must follow the instructions and calculations in this appendix A, and use the panel testing procedures in ASTM Method D5087-02, “Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)” (incorporated by reference, see §63.14), or the guidelines presented in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You must weigh panels at the points described in section 2.5 of this appendix A and perform calculations as described in sections 3 and 4 of this appendix A. You may conduct panel tests on the production paint line in your facility or in a laboratory simulation of the production paint line in your facility.

2.2 You may conduct panel testing on representative coatings as described in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). If you panel test representative coatings, then you may calculate either a unique percent capture efficiency value for each coating grouped with that representative coating, or a composite percent capture efficiency value for the group of coatings. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency value for that coating.

2.3 Identification of Controlled Spray Booth Zones.

You must identify each controlled spray booth zone or each group of contiguous controlled spray booth zones to be tested. (For example, a controlled bell zone immediately followed by a controlled robotic zone.) Separate panel tests are required for non-contiguous controlled spray booth zones. The flash zone between the last basecoat zone and the first clearcoat zone makes these zones non-contiguous.

2.4 Where to Apply Coating to the Panel.

If you are conducting a panel test for a single controlled spray booth zone, then you must apply coating to the panel only in that controlled spray booth zone. If you are conducting a panel test for a group of contiguous controlled spray booth zones, then you must apply coating to the panel only in that group of contiguous controlled spray booth zones.
2.5 How to Process and When to Weigh the Panel.

The instructions in this section pertain to panel testing of coating, i, or of the coating representing the group of coatings that includes coating, i.

2.5.1 You must weigh the blank panel. (Same as in bake oven panel test.) The mass of the blank panel is represented by $W_{\text{blank},i}$ (grams).

2.5.2 Apply coating, i, or the coating representing coating, i, to the panel in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested (in plant test), or in a simulation of the controlled spray booth zone or group of contiguous controlled spray booth zones being tested (laboratory test).

2.5.3 Remove and weigh the wet panel as soon as the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested. (Different than bake oven panel test.) This weighing must be conducted quickly to avoid further evaporation of VOC. The mass of the wet panel is represented by $W_{\text{wet},i}$ (grams).

2.5.4 Return the wet panel to the point in the coating process or simulation of the coating process where it was removed for weighing.

2.5.5 Allow the panel to travel through the rest of the coating process in the plant or laboratory simulation of the coating process. You must not apply any more coating to the panel after it leaves the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested. The rest of the coating process or simulation of the coating process consists of:

2.5.5.1 All of the spray booth zone(s) or simulation of all of the spray booth zone(s) located after the controlled spray booth zone or group of contiguous controlled spray booth zones being tested and before the bake oven where the coating applied to the panel is cured,

2.5.5.2 All of the flash-off area(s) or simulation of all of the flash-off area(s) located after the controlled spray booth zone or group of contiguous controlled spray booth zones being tested and before the bake oven where the coating applied to the panel is cured, and

2.5.5.3 The bake oven or simulation of the bake oven where the coating applied to the panel is cured.

2.5.6 After the panel exits the bake oven, you must cool and weigh the baked panel. (Same as in bake oven panel test.) The mass of the baked panel is represented by $W_{\text{baked},i}$ (grams).

3.0 Panel Calculations.

The instructions in this section pertain to panel testing of coating, i, or of the coating representing the group of coatings that includes coating, i.

3.1 The mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel equals the mass of the baked panel minus the mass of the blank panel as shown in Equation A-1.

$$W_{\text{dep},i} = W_{\text{baked},i} - W_{\text{blank},i} \quad \text{(Eq. A-1)}$$

Where:

$W_{\text{dep},i} = \text{Mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel, grams.}$

3.2 The mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth
zones being tested equals the mass of the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested minus the mass of the baked panel as shown in Equation A-2.

\[ W_{\text{rem,}i} = W_{\text{wet,}i} - W_{\text{bake,}i} \]  
(\text{Eq. A-2})

Where:

- \( W_{\text{rem,}i} \) = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, grams.

3.3 Calculate the mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel as shown in Equation A-3.

\[ P_{m,} = \left( \frac{W_{\text{rem,}i}}{W_{\text{dep,}i}} \right) \]  
(\text{Eq. A-3})

Where:

- \( P_{m,} \) = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel, grams of VOC remaining per gram of coating solids deposited.

- \( W_{\text{rem,}i} \) = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, grams.

- \( W_{\text{dep,}i} \) = Mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel, grams.

4.0 Converting Panel Result to Percent Capture.

The instructions in this section pertain to panel testing of for coating, i, or of the coating representing the group of coatings that includes coating, i.

4.1 If you panel test representative coatings, then you may convert the panel test result for each representative coating from section 3.3 of this appendix A either to a unique percent capture efficiency value for each coating grouped with that representative coating by using coating specific values for the mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A, or to a composite percent capture efficiency value for the group of coatings by using the average values for the group of coatings for mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency value by using coating specific values for the mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A. The mass fraction of VOC in the coating and the mass fraction of solids in the coating must be determined by Method 24 (appendix A to 40 CFR part 60) or by following the guidelines for combining analytical VOC content and formulation solvent content presented in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

4.2 The percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating solids deposited on the panel that remains on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested is calculated using Equation A-4.
Where:

\[ P_{\text{voc,\text{pan},i}} = \left( \frac{P_{\text{m},i}}{W_{s,i}} \right) \left( \frac{100}{W_{\text{vocc,i}}} \right) \]  \hspace{1cm} (Eq. A-4)

\[ P_{\text{m},i} = \text{Mass of VOC (from coating, } i, \text{ or from the coating representing coating, } i, \text{ in the panel test)} \text{ remaining on the wet panel when the wet panel leaves the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, grams of VOC remaining per gram of coating solids deposited.} \]

\[ W_{s,i} = \text{Mass fraction of coating solids for coating, } i, \text{ or average mass fraction of coating solids for the group of coatings including coating, } i, \text{ grams coating solids per gram coating, determined by Method 24 (appendix A to 40 CFR part 60) or by following the guidelines for combining analytical VOC content and formulation solvent content presented in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).} \]

\[ W_{\text{vocc,i}} = \text{Mass fraction of VOC in coating, } i, \text{ or average mass fraction of VOC for the group of coatings including coating, } i, \text{ grams VOC per grams coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).} \]

4.3 The percent of VOC for coating, \(i\), or composite percent of VOC for the group of coatings including coating, \(i\), associated with the coating sprayed in the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested that is captured in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, \(CE_{\text{zone,i}}\) (percent), is calculated using Equation A-5.

\[ CE_{\text{zone,i}} = 100 - P_{\text{voc,\text{pan},i}} \] \hspace{1cm} (Eq. A-5)

Where:

\(CE_{\text{zone,i}} = \text{Capture efficiency for coating, } i, \text{ or for the group of coatings including coating, } i, \text{ in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested as a percentage of the VOC in the coating, } i, \text{ or of the group of coatings including coating, } i, \text{ sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, percent.}\)

4.4 Calculate the percent of VOC for coating, \(i\), or composite percent of VOC for the group of coatings including coating, \(i\), associated with the entire volume of coating, \(i\), or with the total volume of all of the coatings grouped with coating, \(i\), sprayed in the entire spray booth that is captured in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, using Equation A-6. The volume of coating, \(i\), or of the group of coatings including coating, \(i\), sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, and the volume of coating, \(i\), or of the group of coatings including coating, \(i\), sprayed in the entire spray booth may be determined from gun on times and fluid flow rates or from direct measurements of coating usage.

\[ CE_{i} = \left( \frac{CE_{\text{zone,i}}}{V_{\text{zone,i}}} \right) \left( \frac{V_{\text{booth,i}}}{V_{\text{booth}} \cdot 100} \right) \] \hspace{1cm} (Eq. A-6)

Where:

\(CE_{i} = \text{Capture efficiency for coating, } i, \text{ or for the group of coatings including coating, } i, \text{ in the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested as a percentage of the VOC in the coating, } i, \text{ or of the group of coatings including coating, } i, \text{ sprayed in the entire spray booth in which the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, percent.}\)
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\[ V_{\text{zone},i} = \text{Volume of coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, liters.} \]

\[ V_{\text{booth},i} = \text{Volume of coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth containing the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, liters.} \]

4.5 If you conduct multiple panel tests for the same coating or same group of coatings in the same spray booth (either because the coating or group of coatings is controlled in non-contiguous zones of the spray booth, or because you choose to conduct separate panel tests for contiguous controlled spray booth zones), then you may add the result from section 4.4 for each such panel test to get the total capture efficiency for the coating or group of coatings over all of the controlled zones in the spray booth for the coating or group of coatings.
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).

§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.


§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.


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.


§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.

§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 III 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.


§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.


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.


§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.


§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:

\[
\frac{C_i - C_o}{C_i} \times 100 = R \quad \text{(Eq. 1)}
\]

Where:

\(C_i\) = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

\(C_o\) = concentration of CO, THC, or formaldehyde at the control device outlet, and

\(R\) = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO\(_2\)). If pollutant concentrations are to be corrected to 15 percent oxygen and CO\(_2\) concentration is measured in lieu of oxygen concentration measurement, a CO\(_2\) correction factor is needed. Calculate the CO\(_2\) correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific \(F_o\) value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

\[
F_o = \frac{0.209 F_d}{F_c} \quad \text{(Eq. 2)}
\]

Where:
F_0 = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

\[ X_{\text{CO}_2} = \frac{5.9}{F_0} \] (Eq. 3)

Where:

\[ X_{\text{CO}_2} = \text{CO}_2 \text{ correction factor, percent.} \]

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:

\[ C_{\text{adj}} = C_d \times \frac{X_{\text{CO}_2}}{\%\text{CO}_2} \] (Eq. 4)

Where:

\[ C_{\text{adj}} = \text{Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O}_2. \]

\[ C_d = \text{Measured concentration of CO, THC, or formaldehyde, uncorrected.} \]

\[ X_{\text{CO}_2} = \text{CO}_2 \text{ correction factor, percent.} \]

\[ \%\text{CO}_2 = \text{Measured CO}_2 \text{ concentration measured, dry basis, percent.} \]

(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.


§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 O2 or CO2 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 CO₂ 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.


§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 O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ 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 O₂ emissions simultaneously at the inlet and outlet of the control device.


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 O2 using one of the O2 measurement methods specified in Table 4 of this subpart. Measurements to determine O2 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 O2 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.


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.


§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.


§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.

§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).

§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 CO₂.

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 CO₂.

*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 (NOx) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NOx, CO, and volatile organic compounds (VOC) into CO2, 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 H 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 C3H8.
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 NOx (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.

Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

<table>
<thead>
<tr>
<th>For each</th>
<th>You must meet the following emission limitation, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 4SRB stationary RICE</td>
<td>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</td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O²</td>
<td></td>
</tr>
</tbody>
</table>

¹ Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following operating limitation, except during periods of startup . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. existing, new and reconstructed 4SRB stationary RICE &gt;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 &gt;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 O₂ and using NSCR;</td>
<td>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</td>
</tr>
<tr>
<td>2. existing, new and reconstructed 4SRB stationary RICE &gt;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 existing, new and reconstructed 4SRB stationary RICE &gt;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 O₂ and not using NSCR.</td>
<td>Comply with any operating limitations approved by the Administrator.</td>
</tr>
</tbody>
</table>

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6706, Jan. 30, 2013]

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following emission limitation, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 2SLB stationary RICE</td>
<td>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 O₂. 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 O₂ until June 15, 2007</td>
<td>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</td>
</tr>
<tr>
<td>2. 4SLB stationary RICE</td>
<td>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 O₂</td>
<td></td>
</tr>
</tbody>
</table>
For each...

You must meet the following emission limitation, except during periods of startup...

During periods of startup you must...

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 O2

1Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following operating limitation, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New and reconstructed 2SLB and CI stationary RICE &gt;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 &gt;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 and using an oxidation catalyst.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>2. Existing CI stationary RICE &gt;500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>3. New and reconstructed 2SLB and CI stationary RICE &gt;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 New and reconstructed 2SLB and CI stationary RICE &gt;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 and not using an oxidation catalyst; and</td>
<td>Comply with any operating limitations approved by the Administrator.</td>
<td></td>
</tr>
</tbody>
</table>

1Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.
For each… | You must meet the following operating limitation, except during periods of startup…
---|---
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.

1Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6707, Jan. 30, 2013]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

| For each… | You must meet the following requirement, except during periods of startup… | During periods of startup you must… |
---|---|---|
1. Emergency stationary CI RICE and black start stationary CI RICE¹ | 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 O₂. | |

---

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

²Change oil and filter every 500 hours of operation or annually, whichever comes first.

³Minimize 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.
<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Non-Emergency, non-black start CI stationary RICE 300&lt;HP≤500</td>
<td>a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O₂; or b. Reduce CO emissions by 70 percent or more.</td>
<td></td>
</tr>
<tr>
<td>5. Non-Emergency, non-black start stationary CI RICE &gt;500 HP</td>
<td>a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O₂; or b. Reduce CO emissions by 70 percent or more.</td>
<td></td>
</tr>
<tr>
<td>6. Emergency stationary SI RICE and black start stationary SI RICE.¹</td>
<td>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</td>
<td></td>
</tr>
<tr>
<td>7. Non-Emergency, non-black start stationary SI RICE &lt;100 HP that are not 2SLB stationary RICE</td>
<td>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</td>
<td></td>
</tr>
<tr>
<td>8. Non-Emergency, non-black start 2SLB stationary SI RICE &lt;100 HP</td>
<td>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</td>
<td></td>
</tr>
<tr>
<td>For each . . .</td>
<td>You must meet the following requirement, except during periods of startup . . .</td>
<td>During periods of startup you must . . .</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500</td>
<td>Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O₂.</td>
<td></td>
</tr>
<tr>
<td>10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500</td>
<td>Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O₂.</td>
<td></td>
</tr>
<tr>
<td>11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500</td>
<td>Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O₂.</td>
<td></td>
</tr>
<tr>
<td>12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusted landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis</td>
<td>Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O₂.</td>
<td></td>
</tr>
</tbody>
</table>

1If 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.

2Sources 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.

3Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]
Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
</table>
| 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 O₂; 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 O₂; 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:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>a. Change oil and filter every 500 hours of operation or annually, whichever comes first;(^1);</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
</tbody>
</table>

6. Non-emergency, non-black start 2SLB stationary RICE

<table>
<thead>
<tr>
<th>a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;(^1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
<tr>
<td>c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
</tbody>
</table>

7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP

<table>
<thead>
<tr>
<th>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;(^1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
<tr>
<td>c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
</tbody>
</table>

8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP

<table>
<thead>
<tr>
<th>a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;(^1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
<tr>
<td>For each . . .</td>
<td>You must meet the following requirement, except during periods of startup . . .</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
<tr>
<td>9. Non-emergency, non-black start 4SLB stationary RICE &gt;500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year</td>
<td>Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.</td>
</tr>
<tr>
<td>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;¹</td>
<td></td>
</tr>
<tr>
<td>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
<tr>
<td>c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
<tr>
<td>10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP</td>
<td></td>
</tr>
<tr>
<td>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;¹</td>
<td></td>
</tr>
<tr>
<td>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
<tr>
<td>c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
<tr>
<td>11. Non-emergency, non-black start 4SRB remote stationary RICE &gt;500 HP</td>
<td></td>
</tr>
<tr>
<td>a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;¹</td>
<td></td>
</tr>
<tr>
<td>b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
<tr>
<td>c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
<tr>
<td>12. Non-emergency, non-black start 4SRB stationary RICE &gt;500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year</td>
<td>Install NSCR to reduce HAP emissions from the stationary RICE.</td>
</tr>
<tr>
<td>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;¹</td>
<td></td>
</tr>
<tr>
<td>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
<tr>
<td>c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td></td>
</tr>
<tr>
<td>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;¹</td>
<td></td>
</tr>
<tr>
<td>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td></td>
</tr>
</tbody>
</table>
For each . . . | You must meet the following requirement, except during periods of startup . . . | During periods of startup you must . . .
--- | --- | ---
| c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. |  

1Sources 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.

2If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[78 FR 6709, Jan. 30, 2013]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New or reconstructed 2SLB stationary RICE &gt;500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE &gt;500 HP located at major sources</td>
<td>Reduce CO emissions and not using a CEMS</td>
<td>Conduct subsequent performance tests semiannually.¹</td>
</tr>
<tr>
<td>2. 4SRB stationary RICE ≥5,000 HP located at major sources</td>
<td>Reduce formaldehyde emissions</td>
<td>Conduct subsequent performance tests semiannually.¹</td>
</tr>
<tr>
<td>3. Stationary RICE &gt;500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources</td>
<td>Limit the concentration of formaldehyde in the stationary RICE exhaust</td>
<td>Conduct subsequent performance tests semiannually.¹</td>
</tr>
<tr>
<td>4. Existing non-emergency, non-black start CI stationary RICE &gt;500 HP that are not limited use stationary RICE</td>
<td>Limit or reduce CO emissions and not using a CEMS</td>
<td>Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.</td>
</tr>
<tr>
<td>5. Existing non-emergency, non-black start CI stationary RICE &gt;500 HP that are limited use stationary RICE</td>
<td>Limit or reduce CO emissions and not using a CEMS</td>
<td>Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.</td>
</tr>
</tbody>
</table>

¹After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6711, Jan. 30, 2013]
### Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You must . . .</th>
<th>Using . . .</th>
<th>According to the following requirements . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 2SLB, 4SLB, and CI stationary RICE</td>
<td>a. reduce CO emissions</td>
<td>i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and</td>
<td>(a) For CO and O&lt;sub&gt;2&lt;/sub&gt; measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts &gt;6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (‘3-point long line’). If the duct is &gt;12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at ‘3-point long line’; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)&lt;sup&gt;ac&lt;/sup&gt; (heated probe not necessary)</td>
<td>(b) Measurements to determine O&lt;sub&gt;2&lt;/sub&gt; must be made at the same time as the measurements for CO concentration.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Measure the O&lt;sub&gt;2&lt;/sub&gt; at the inlet and outlet of the control device; and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)&lt;sup&gt;abc&lt;/sup&gt; (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4</td>
<td>(c) The CO concentration must be at 15 percent O&lt;sub&gt;2&lt;/sub&gt;, dry basis.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Measure the CO at the inlet and the outlet of the control device</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must . . .</td>
<td>Using . . .</td>
<td>According to the following requirements . . .</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------</td>
<td>----------------</td>
<td>-----------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>2. 4SRB stationary RICE</td>
<td>a. reduce formaldehyde emissions</td>
<td>i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and</td>
<td>(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)(^a) (heated probe not necessary)</td>
<td>(a) For formaldehyde, (O_2), and moisture measurement, ducts (\leq 6) inches in diameter may be sampled at a single point located at the duct centroid and ducts (&gt; 6) and (\leq 12) inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is (&gt; 12) inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Measure (O_2) at the inlet and outlet of the control device; and</td>
<td>(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03(^a)</td>
<td>(a) Measurements to determine (O_2) concentration must be made at the same time as the measurements for formaldehyde or THC concentration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Measure moisture content at the inlet and outlet of the control device; and</td>
<td>(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</td>
<td>(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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device</td>
<td>(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A-7</td>
<td>(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.</td>
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<td>v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device</td>
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<tr>
<td>For each</td>
<td>Complying with the requirement to</td>
<td>You must . . .</td>
<td>Using . . .</td>
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<tr>
<td>3. Stationary RICE</td>
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<td>According to the following requirements . . .</td>
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</tr>
<tr>
<td>a. limit the concentration of formaldehyde or CO in the stationary RICE exhaust</td>
<td>i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and</td>
<td>(a) For formaldehyde, CO, O\textsubscript{2}, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts &gt;6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (‘3-point long line’). If the duct is &gt;12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at ‘3-point long line’; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.</td>
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<td></td>
<td>ii. Determine the O\textsubscript{2} concentration of the stationary RICE exhaust at the sampling port location; and</td>
<td>(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)a (heated probe not necessary)</td>
<td>(a) Measurements to determine O\textsubscript{2} concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.</td>
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</tr>
<tr>
<td></td>
<td>iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and</td>
<td>(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03a</td>
<td>(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.</td>
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</tr>
<tr>
<td></td>
<td>iv. Measure formaldehyde at the exhaust of the stationary RICE; or</td>
<td>(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03a, 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</td>
<td>(a) Formaldehyde concentration must be at 15 percent O\textsubscript{2}, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.</td>
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<td></td>
<td>v. measure CO at the exhaust of the stationary RICE</td>
<td>(1) Method 10 of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (2005)c, Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03a</td>
<td>(a) CO concentration must be at 15 percent O\textsubscript{2}, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.</td>
<td></td>
</tr>
</tbody>
</table>
You may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

You may obtain a copy of ASTM-D6348-03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[79 FR 11290, Feb. 27, 2014]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You have demonstrated initial compliance if . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New or reconstructed non-emergency 2SLB stationary RICE &gt;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 &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Reduce CO emissions and using oxidation catalyst, and using a CPMS</td>
<td>i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</td>
</tr>
<tr>
<td>2. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS</td>
<td>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.</td>
</tr>
<tr>
<td>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;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 &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Reduce CO emissions and not using oxidation catalyst</td>
<td>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.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You have demonstrated initial compliance if . . .</td>
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</tr>
</tbody>
</table>
| 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 O₂ or CO₂ at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and  
ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and  
iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period. |
| 6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP | a. Limit the concentration of CO, and using a CEMS | i. You have installed a CEMS to continuously monitor CO and either O₂ or CO₂ at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and  
ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and  
iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period. |
| 7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP | a. Reduce formaldehyde emissions and using NSCR | i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and  

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You have demonstrated initial compliance if . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP</td>
<td>a. Reduce formaldehyde emissions and not using NSCR</td>
<td>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.</td>
</tr>
<tr>
<td>9. New or reconstructed non-emergency stationary RICE &gt;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 &gt;500 HP located at a major source of HAP</td>
<td>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR</td>
<td>i. The average formaldehyde concentration, corrected to 15 percent O₂, 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 approved operating parameters (if any) during the initial performance test.</td>
</tr>
<tr>
<td>10. New or reconstructed non-emergency stationary RICE &gt;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 &gt;500 HP located at a major source of HAP</td>
<td>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR</td>
<td>i. The average formaldehyde concentration, corrected to 15 percent O₂, 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.</td>
</tr>
<tr>
<td>11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300&lt;HP≤500 located at an area source of HAP</td>
<td>a. Reduce CO emissions</td>
<td>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.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You have demonstrated initial compliance if . . .</td>
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<tr>
<td>12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP and existing non-emergency stationary CI RICE 300&lt;HP≤500 located at an area source of HAP</td>
<td>a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust</td>
<td>i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O₂, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.</td>
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<tr>
<td>13. Existing non-emergency 4SLB stationary RICE &gt;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</td>
<td>a. Install an oxidation catalyst</td>
<td>i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O₂;</td>
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<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>14. Existing non-emergency 4SRB stationary RICE &gt;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</td>
<td>a. Install NSCR</td>
<td>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 O₂, or the average reduction of emissions of THC is 30 percent or more;</td>
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<td></td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

[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>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You must demonstrate continuous compliance by . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New or reconstructed non-emergency 2SLB stationary RICE &gt;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 &gt;500 HP located at a major source of HAP</td>
<td>a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS</td>
<td>i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
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<tr>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</td>
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<tr>
<td>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.</td>
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<tr>
<td>2. New or reconstructed non-emergency 2SLB stationary RICE &gt;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 &gt;500 HP located at a major source of HAP</td>
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<tr>
<td>a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS</td>
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<tr>
<td>i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; and</td>
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<tr>
<td>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</td>
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<tr>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
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<tr>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
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<tr>
<td>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;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 existing non-emergency stationary CI RICE &gt;500 HP</td>
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<tr>
<td>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS</td>
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<tr>
<td>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</td>
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<tr>
<td>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</td>
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<td>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.</td>
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<tr>
<td>4. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP</td>
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<tr>
<td>a. Reduce formaldehyde emissions and using NSCR</td>
<td></td>
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<tr>
<td>i. Collecting the catalyst inlet temperature data according to §63.6625(b); and</td>
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<tr>
<td>ii. Reducing these data to 4-hour rolling averages; and</td>
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<tr>
<td>iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</td>
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<tr>
<td>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.</td>
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<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
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<tr>
<td>5. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP</td>
<td>a. Reduce formaldehyde emissions and not using NSCR</td>
<td>i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</td>
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<td></td>
<td></td>
<td>ii. Reducing these data to 4-hour rolling averages; and</td>
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<td></td>
<td></td>
<td>iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
</tr>
<tr>
<td>6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP</td>
<td>a. Reduce formaldehyde emissions</td>
<td>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.</td>
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<tr>
<td></td>
<td></td>
<td>i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; and</td>
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<tr>
<td></td>
<td></td>
<td>ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
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<tr>
<td></td>
<td></td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</td>
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<tr>
<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>7. New or reconstructed non-emergency stationary RICE &gt;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</td>
<td>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR</td>
<td>i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
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<tr>
<td>-------------</td>
<td>----------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
</tbody>
</table>
| 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 |
<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You must demonstrate continuous compliance by . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td>12. Existing limited use CI stationary RICE &gt;500 HP</td>
<td>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst</td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and</td>
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<tr>
<td></td>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>13. Existing limited use CI stationary RICE &gt;500 HP</td>
<td>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst</td>
<td>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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
</tr>
<tr>
<td>14. Existing non-emergency 4SLB stationary RICE &gt;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</td>
<td>Complying with the requirement to . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
</tr>
<tr>
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<td>---</td>
</tr>
<tr>
<td>a. Install an oxidation catalyst</td>
<td>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 O₂; 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.</td>
<td></td>
</tr>
</tbody>
</table>

| 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 O₂, 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. |

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*aAfter 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>
<thead>
<tr>
<th>For each . . .</th>
<th>You must submit a . . .</th>
<th>The report must contain . . .</th>
<th>You must submit the report . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 &gt;500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE &gt;300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE &gt;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</td>
<td>Compliance report</td>
<td>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</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or</td>
<td>i. Semiannually according to the requirements in §63.6650(b).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).</td>
<td>i. Semiannually according to the requirements in §63.6650(b).</td>
</tr>
<tr>
<td>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</td>
<td>Report</td>
<td>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</td>
<td>i. Annually, according to the requirements in §63.6650.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and</td>
<td>i. See item 2.a.i.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Any problems or errors suspected with the meters.</td>
<td>i. See item 2.a.i.</td>
</tr>
<tr>
<td>3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE &gt;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</td>
<td>Compliance report</td>
<td>a. The results of the annual compliance demonstration, if conducted during the reporting period.</td>
<td>i. Semiannually according to the requirements in §63.6650(b)(1)-(5).</td>
</tr>
</tbody>
</table>
For each . . . | You must submit a . . . | The report must contain . . . | You must submit the report . . .
--- | --- | --- | ---
4. Emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in §63.6640(f)(4)(ii) | Report | a. The information in §63.6650(h)(1) | i. annually according to the requirements in §63.6650(h)(2)-(3).

[78 FR 6719, Jan. 30, 2013]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in §63.6665, you must comply with the following applicable general provisions.

<table>
<thead>
<tr>
<th>General provisions citation</th>
<th>Subject of citation</th>
<th>Applies to subpart</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>§63.1</td>
<td>General applicability of the General Provisions</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.2</td>
<td>Definitions</td>
<td>Yes.</td>
<td>Additional terms defined in §63.6675.</td>
</tr>
<tr>
<td>§63.3</td>
<td>Units and abbreviations</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.4</td>
<td>Prohibited activities and circumvention</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.5</td>
<td>Construction and reconstruction</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(a)</td>
<td>Applicability</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(1)-(4)</td>
<td>Compliance dates for new and reconstructed sources</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(5)</td>
<td>Notification</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(6)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(7)</td>
<td>Compliance dates for new and reconstructed area sources that become major sources</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(c)(1)-(2)</td>
<td>Compliance dates for existing sources</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(c)(3)-(4)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§63.6(c)(5)</td>
<td>Compliance dates for existing area sources that become major sources</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(d)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§63.6(e)</td>
<td>Operation and maintenance</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>§63.6(f)(1)</td>
<td>Applicability of standards</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>§63.6(f)(2)</td>
<td>Methods for determining compliance</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(f)(3)</td>
<td>Finding of compliance</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(g)(1)-(3)</td>
<td>Use of alternate standard</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(h)</td>
<td>Opacity and visible emission standards</td>
<td>No.</td>
<td>Subpart ZZZZ does not contain opacity or visible emission standards.</td>
</tr>
<tr>
<td>§63.6(i)</td>
<td>Compliance extension procedures and criteria</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>General provisions citation</td>
<td>Subject of citation</td>
<td>Applies to subpart</td>
<td>Explanation</td>
</tr>
<tr>
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</tr>
<tr>
<td>§63.6(j)</td>
<td>Presidential compliance exemption</td>
<td>Yes</td>
<td>Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.</td>
</tr>
<tr>
<td>§63.7(a)(1)-(2)</td>
<td>Performance test dates</td>
<td>Yes</td>
<td>Subpart ZZZZ specifies test methods at §63.6620.</td>
</tr>
<tr>
<td>§63.7(a)(3)</td>
<td>CAA section 114 authority</td>
<td>Yes</td>
<td>Subpart ZZZZ specifies test methods at §63.6620.</td>
</tr>
<tr>
<td>§63.7(b)(1)</td>
<td>Notification of performance test</td>
<td>Yes</td>
<td>Except that §63.7(b)(1) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.7(b)(2)</td>
<td>Notification of rescheduling</td>
<td>Yes</td>
<td>Except that §63.7(b)(2) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.7(c)</td>
<td>Quality assurance/test plan</td>
<td>Yes</td>
<td>Except that §63.7(c) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.7(d)</td>
<td>Testing facilities</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.7(e)(1)</td>
<td>Conditions for conducting performance tests</td>
<td>No</td>
<td>Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.</td>
</tr>
<tr>
<td>§63.7(e)(2)</td>
<td>Conduct of performance tests and reduction of data</td>
<td>Yes</td>
<td>Subpart ZZZZ specifies test methods at §63.6620.</td>
</tr>
<tr>
<td>§63.7(e)(3)</td>
<td>Test run duration</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.7(e)(4)</td>
<td>Administrator may require other testing under section 114 of the CAA</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.7(f)</td>
<td>Alternative test method provisions</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.7(g)</td>
<td>Performance test data analysis, recordkeeping, and reporting</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.7(h)</td>
<td>Waiver of tests</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(a)(1)</td>
<td>Applicability of monitoring requirements</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(a)(2)</td>
<td>Performance specifications</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(a)(3)</td>
<td>Reserved</td>
<td></td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(a)(4)</td>
<td>Monitoring for control devices</td>
<td>No</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(b)(1)</td>
<td>Monitoring</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(b)(2)-(3)</td>
<td>Multiple effluents and multiple monitoring systems</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(c)(1)</td>
<td>Monitoring system operation and maintenance</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(c)(1)(i)</td>
<td>Routine and predictable SSM</td>
<td>No</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(c)(1)(ii)</td>
<td>SSM not in Startup Shutdown Malfunction Plan</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(c)(1)(iii)</td>
<td>Compliance with operation and maintenance requirements</td>
<td>No</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(c)(2)-(3)</td>
<td>Monitoring system installation</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(c)(4)</td>
<td>Continuous monitoring system (CMS) requirements</td>
<td>Yes</td>
<td>Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).</td>
</tr>
<tr>
<td>§63.8(c)(5)</td>
<td>COMS minimum procedures</td>
<td>No</td>
<td>Subpart ZZZZ does not require COMS.</td>
</tr>
<tr>
<td>§63.8(c)(6)-(8)</td>
<td>CMS requirements</td>
<td>Yes</td>
<td>Except that subpart ZZZZ does not require COMS.</td>
</tr>
<tr>
<td>General provisions citation</td>
<td>Subject of citation</td>
<td>Applies to subpart</td>
<td>Explanation</td>
</tr>
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<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>§63.8(d)</td>
<td>CMS quality control</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.8(e)</td>
<td>CMS performance evaluation</td>
<td>Yes</td>
<td>Except for §63.8(e)(5)(ii), which applies to COMS.</td>
</tr>
<tr>
<td>§63.8(f)(1)-(5)</td>
<td>Alternative monitoring method</td>
<td>Yes</td>
<td>Except that §63.8(f)(4) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.8(f)(6)</td>
<td>Alternative to relative accuracy test</td>
<td>Yes</td>
<td>Except that §63.8(f)(6) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.8(g)</td>
<td>Data reduction</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.8(g)</td>
<td></td>
<td></td>
<td>Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6636 and 63.6640.</td>
</tr>
<tr>
<td>§63.9(a)</td>
<td>Applicability and State delegation of notification requirements</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.9(b)(1)-(5)</td>
<td>Initial notifications</td>
<td>Yes</td>
<td>Except that §63.9(b)(3) is reserved.</td>
</tr>
<tr>
<td>§63.9(c)</td>
<td>Request for compliance extension</td>
<td>Yes</td>
<td>Except that §63.9(c) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.9(d)</td>
<td>Notification of special compliance requirements for new sources</td>
<td>Yes</td>
<td>Except that §63.9(d) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.9(e)</td>
<td>Notification of performance test</td>
<td>Yes</td>
<td>Except that §63.9(e) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.9(f)</td>
<td>Notification of visible emission (VE)/opacity test</td>
<td>No</td>
<td>Subpart ZZZZ does not contain opacity or VE standards.</td>
</tr>
<tr>
<td>§63.9(g)(1)</td>
<td>Notification of performance evaluation</td>
<td>Yes</td>
<td>Except that §63.9(g) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.9(g)(2)</td>
<td>Notification of use of COMS data</td>
<td>No</td>
<td>Subpart ZZZZ does not contain opacity or VE standards.</td>
</tr>
<tr>
<td>§63.9(g)(3)</td>
<td>Notification that criterion for alternative to RATA is exceeded</td>
<td>Yes</td>
<td>If alternative is in use.</td>
</tr>
<tr>
<td>§63.9(h)(1)-(6)</td>
<td>Notification of compliance status</td>
<td>Yes</td>
<td>Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.</td>
</tr>
<tr>
<td>§63.9(i)</td>
<td>Adjustment of submittal deadlines</td>
<td>Yes</td>
<td>Except that §63.9(h)(4) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.9(j)</td>
<td>Change in previous information</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>General provisions citation</td>
<td>Subject of citation</td>
<td>Applies to subpart</td>
<td>Explanation</td>
</tr>
<tr>
<td>-----------------------------</td>
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</tr>
<tr>
<td>§63.10(a)</td>
<td>Administrative provisions for recordkeeping/reporting</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(1)</td>
<td>Record retention</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(i)-(v)</td>
<td>Records related to SSM</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(vi)-(xi)</td>
<td>Records related to RATA</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(xii)</td>
<td>Records when using alternative to RATA</td>
<td>Yes.</td>
<td>For CO standard if using RATA alternative.</td>
</tr>
<tr>
<td>§63.10(b)(2)(xiii)</td>
<td>Records of supporting documentation</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(xiv)</td>
<td>Records when under waiver</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(xv)</td>
<td>Records when using alternative to RATA</td>
<td>Yes.</td>
<td>For CO standard if using RATA alternative.</td>
</tr>
<tr>
<td>§63.10(b)(3)</td>
<td>Records of applicability determination</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(c)</td>
<td>Additional records for sources using CEMS</td>
<td>Yes.</td>
<td>Except that §63.10(c)(2)-(4) and (9) are reserved.</td>
</tr>
<tr>
<td>§63.10(d)(1)</td>
<td>General reporting requirements</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(2)</td>
<td>Report of performance test results</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(3)</td>
<td>Reporting opacity or VE observations</td>
<td>No.</td>
<td>Subpart ZZZZ does not contain opacity or VE standards.</td>
</tr>
<tr>
<td>§63.10(d)(4)</td>
<td>Progress reports</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(5)</td>
<td>Startup, shutdown, and malfunction reports</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>§63.10(e)(1) and (2)(i)</td>
<td>Additional CMS Reports</td>
<td>Yes.</td>
<td></td>
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<tr>
<td>§63.10(e)(2)(ii)</td>
<td>COMS-related report</td>
<td>No.</td>
<td>Subpart ZZZZ does not require COMS.</td>
</tr>
<tr>
<td>§63.10(e)(3)</td>
<td>Excess emission and parameter exceedances reports</td>
<td>Yes.</td>
<td>Except that §63.10(e)(3)(i) (C) is reserved.</td>
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<tr>
<td>§63.10(e)(4)</td>
<td>Reporting COMS data</td>
<td>No.</td>
<td>Subpart ZZZZ does not require COMS.</td>
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<tr>
<td>§63.10(f)</td>
<td>Waiver for recordkeeping/reporting</td>
<td>Yes.</td>
<td></td>
</tr>
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<td>§63.11</td>
<td>Flares</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>§63.12</td>
<td>State authority and delegations</td>
<td>Yes.</td>
<td></td>
</tr>
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<td>§63.13</td>
<td>Addresses</td>
<td>Yes.</td>
<td></td>
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<td>§63.14</td>
<td>Incorporation by reference</td>
<td>Yes.</td>
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<tr>
<td>§63.15</td>
<td>Availability of information</td>
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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\textsubscript{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\textsubscript{2}).

<table>
<thead>
<tr>
<th>Analyte</th>
<th>CAS No.</th>
<th>Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide (CO)</td>
<td>630-08-0</td>
<td>Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.</td>
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<tr>
<td>Oxygen (O\textsubscript{2})</td>
<td>7782-44-7</td>
<td></td>
</tr>
</tbody>
</table>

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\textsubscript{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\textsubscript{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\textsubscript{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 O2 and moisture in the electrolyte reserve and provides a mechanism to degas 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\textsubscript{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\textsubscript{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\textsubscript{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 O₂. 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 O₂) is acceptable for calibration of the O₂ cell. If needed, any lower percentage O₂ calibration gas must be a mixture of O₂ 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 O₂ Calibration Gas Concentration.*

Select an O₂ 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 O₂. When the average exhaust gas O₂ readings are above 6 percent, you may use dry ambient air (20.9 percent O₂) for the up-scale O₂ 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., CO₂).

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 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 O₂ 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 O2 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 O2 for the O2 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 O2, 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 O2, 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 O2 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 NO2 gas standards that are generally recognized as representative of diesel-fueled engine NO and NO2 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 NO2 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*


(3) "ICAC Test Protocol for Periodic Monitoring", EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.

Table 1: Appendix A—Sampling Run Data.

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<tr>
<th>Facility________</th>
<th>Engine I.D.________</th>
<th>Date______</th>
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<tbody>
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<td>Run Type:</td>
<td>( )</td>
<td>( )</td>
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<tr>
<td>(X)</td>
<td>Pre-Sample Calibration</td>
<td>Stack Gas Sample</td>
</tr>
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<td>Run #</td>
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<td>Gas</td>
<td>O₂</td>
<td>CO</td>
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<td>Measurement Data Phase</td>
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<td>Mean</td>
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[78 FR 6721, Jan. 30, 2013]
Title 40: Protection of Environment

PART 63—NATIONAL EMission STANDARDS FOR HAZARDOUS AIR POLLuTAnTS FOR SOURCE CATEGORIES

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

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 or a natural gas-fired EGU as defined in subpart UUUUU of this part firing at least 85 percent natural gas on an annual heat input basis.

(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 and process heaters as defined in this subpart.

(k) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

(l) Any boiler or process heater 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.

(n) Residential boilers as defined in this subpart.


§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 April 1, 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(i) 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 and are no longer subject to part 60, subparts CCCC or DDDD beginning on the effective date of the switch as identified under the provisions of §60.2145(a)(2) and (3) or §60.2710(a)(2) and (3).

(f) If you own or operate an existing EGU that becomes subject to this subpart after January 31, 2016, 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 an 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.

(h) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and have switched fuels or made a physical change to the boiler or process heater that resulted in the applicability of a different subcategory after the compliance date of this subpart, you must be in compliance with the applicable existing source provisions of this subpart on the effective date of the fuel switch or physical change.

(i) If you own or operate a new industrial, commercial, or institutional boiler or process heater and have switched fuels or made a physical change to the boiler or process heater that resulted in the applicability of a different subcategory, you must be in compliance with the applicable new source provisions of this subpart on the effective date of the fuel switch or physical change.


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 7163, 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 either steam, cogenerate steam with electricity, or both. 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 only electricity. Boilers that perform multiple functions (cogeneration and electricity generation) or supply steam to common headers would calculate a total steam energy output using equation 21 of §63.7575 to demonstrate compliance with the output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 to this subpart. 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 (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 on or 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 on or after December 23, 2011 and before April 1, 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 items 5 and 6 of Table 3 to this subpart.


§63.7501 [Reserved]

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 emission and operating 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), 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 stack 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 through 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.

(e) If you have an applicable emission limit, and you choose to comply using definition (2) of “startup” in §63.7575, you must develop and implement a written startup and shutdown plan (SSP) according to the requirements in Table 3 to this subpart. The SSP must be maintained onsite and available upon request for public inspection.

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 (stack) 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 Gas 1 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 non-Gas 1 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 non-Gas 1 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. 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 1, 2, 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 demonstrations, 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.

(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 §63.7515(d) 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 §63.7515(d).

(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, 2016, 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.

(k) For affected sources, as defined in §63.7490, that switch subcategories consistent with §63.7545(h) after the initial compliance date, you must demonstrate compliance within 60 days of the effective date of the switch, unless you had previously conducted your compliance demonstration for this subcategory within the previous 12 months.


§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 April 1, 2013 or the initial startup of the new or reconstructed affected source, whichever is later.

(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. If sampling is conducted on one day per month, samples should be no less than 14 days apart, but if multiple samples are taken per month, the 14-day restriction does not apply.

(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) 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 (stack tests or fuel analyses) 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).


§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.

(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) You must obtain 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. At a minimum, for demonstrating initial compliance by fuel analysis, you must obtain three composite samples. For monthly fuel analyses, at a minimum, you must obtain a single composite sample. For fuel analyses as part of a performance stack test, as specified in §63.7510(a), you must obtain a composite fuel sample during each performance test run.

(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.

(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, or as an alternative where fuel specification analysis is not practical, you must measure mercury concentration in the exhaust gas when firing only the gaseous fuel to be demonstrated as an other gas 1 fuel in the boiler or process heater according to the procedures in Table 6 to this subpart.

(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 a site-specific fuel analysis plan for other gas 1 fuels 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 identification 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. When using a fuel supplier's fuel analysis, the owner or operator is not required to submit the information in §63.7521(g)(2)(iii).

(h) You must obtain a single fuel sample for each fuel type 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 fuel type according to the procedures in Table 6 to this subpart.


§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 April 1, 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 April 1, 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 subject to numeric emission limits 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.

\[
\text{AveWeightedEmissions} = 1.1 \times \frac{\sum_{i=1}^{n} (Er \times Hm)}{\sum_{i=1}^{n} Hm} \quad (\text{Eq. } 1a)
\]

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.
Where:

\[ \text{AveWeightedEmissions} = 1.1 \times \frac{\sum_{i=1}^{n} (Er \times So)}{\sum_{i=1}^{n} So} \quad \text{(Eq. 1b)} \]

\[ \text{AveWeightedEmissions} = \text{Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output.} \]

\[ Er = \text{Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in §63.7530(c). If you are taking credit for energy conservation measures from a unit according to §63.7533, use the adjusted emission level for that unit, Eadj, determined according to §63.7533 for that unit.} \]

\[ So = \text{Maximum steam output capacity of unit, i, in units of million Btu per hour, as defined in §63.7575.} \]

\[ n = \text{Number of units participating in the emissions averaging option.} \]

\[ 1.1 = \text{Required discount factor.} \]

\[ \text{AveWeightedEmissions} = 1.1 \times \frac{\sum_{i=1}^{n} (Er \times Eo)}{\sum_{i=1}^{n} Eo} \quad \text{(Eq. 1c)} \]

\[ \text{AveWeightedEmissions} = \text{Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour.} \]

\[ Er = \text{Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in §63.7530(c). If you are taking credit for energy conservation measures from a unit according to §63.7533, use the adjusted emission level for that unit, Eadj, determined according to §63.7533 for that unit.} \]

\[ Eo = \text{Maximum electric generating output capacity of unit, i, in units of megawatt hour, as defined in §63.7575.} \]

\[ n = \text{Number of units participating in the emissions averaging option.} \]

\[ 1.1 = \text{Required discount factor.} \]

(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.

\[ \text{AveWeightedEmissions} = 1.1 \times \frac{\sum_{i=1}^{n} (Er \times Sm \times Cj)}{\sum_{i=1}^{n} (Sm \times Cj)} \quad \text{(Eq. 2)} \]

\[ \text{AveWeightedEmissions} = \text{Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.} \]
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 to 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 electrical generation for the month if you are complying with the emission limits on an electrical generation (output) basis.

\[
\text{AveWeightedEmissions} = 1.1 \times \left( \sum_{i=1}^{n} (Er \times Hb) \right) + \sum_{i=1}^{n} Hb \quad \text{[Eq. 3a]}
\]

Where:

\text{AveWeightedEmissions} = \text{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.

\[
\text{AveWeightedEmissions} = 1.1 \times \left( \sum_{i=1}^{n} (Er \times So) \right) + \sum_{i=1}^{n} So \quad \text{[Eq. 3b]}
\]

Where:

\text{AveWeightedEmissions} = \text{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, $E_{\text{adj}}$, determined according to §63.7533 for that unit.

$S_o = \text{The steam output for that calendar month from unit, } i, \text{ in units of million Btu, as defined in §63.7575.}$

$n = \text{Number of units participating in the emissions averaging option.}$

$1.1 = \text{Required discount factor.}$

\[
\text{AveWeightedEmissions} = 1.1 \times \sum_{i=1}^{n} \left( \frac{E_r \times E_o}{E_o} \right) \div \sum_{i=1}^{n} E_o \quad (\text{Eq. 3c})
\]

Where:

$\text{AveWeightedEmissions} = \text{Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour, for that calendar month.}$

$E_r = \text{Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, } i, \text{ in units of pounds per megawatt hour.}$

$E_o = \text{The electric generating output for that calendar month from unit, } i, \text{ in units of megawatt hour, as defined in §63.7575.}$

$n = \text{Number of units participating in the emissions averaging option.}$

$1.1 = \text{Required discount factor.}$

(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.

\[
\text{AveWeightedEmissions} = 1.1 \times \sum_{i=1}^{n} \left( E_r \times S_a \times C_f i \right) \div \sum_{i=1}^{n} \left( S_a \times C_f i \right) \quad (\text{Eq. 4})
\]

Where:

$\text{AveWeightedEmissions} = \text{average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input for that calendar month.}$

$E_r = \text{Emission rate (as determined during the most recent compliance demonstration of PM (or TSM), HCl, or mercury from unit, } i, \text{ in units of pounds per million Btu of heat input.}$

$S_a = \text{Actual steam generation for that calendar month by boiler, } i, \text{ in units of pounds.}$

$C_f i = \text{Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for boiler, } i.$

$1.1 = \text{Required discount factor.}$
(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.

\[ E_{avg} = \frac{1}{12} \sum_{i=1}^{12} E_{Ri} \]

Where:

\[ E_{avg} = 12 \text{-month rolling average emission rate, (pounds per million Btu heat input)} \]

\[ E_{Ri} = \text{Monthly weighted average, for calendar month "i" (pounds per million Btu heat input), as calculated by paragraph (f)(1) or (2) of this section.} \]

(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) If requested, 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) If submitted upon request, 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 subcategory, 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.

\[ En = \sum_{i=1}^{n} (Eli \times Hi) + \sum_{i=1}^{n} Hi \]  \[ \text{Eq. 6} \]

Where:

En = HAP emission limit, pounds per million British thermal units (lb/MMBtu) or parts per million (ppm).

Eli = Appropriate emission limit from Table 2 to this subpart for unit i, in units of lb/MMBtu or ppm.

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.


§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 (or carbon dioxide (CO2)) according to the procedures in paragraphs (a)(1) through (6) of this section.

(1) Install the CO CEMS and oxygen (or CO2) analyzer by the compliance date specified in §63.7495. The CO and oxygen (or CO2) levels shall be monitored at the same location at the outlet of the boiler or process heater. An owner or operator may request an alternative test method under §63.7 of this chapter, in order that compliance with the CO emissions limit be determined using CO2 as a diluent correction in place of oxygen at 3 percent. EPA Method 19 F-factors and EPA Method 19 equations must be used to generate the appropriate CO2 correction percentage for the fuel type burned in the unit, and must also take into account that the 3 percent oxygen correction is to be done on a dry basis. The alternative test method request must account for any CO2 being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc.

(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; part 75 of this chapter (if a CO analyzer is used); 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 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.

(vi) When CO2 is used to correct CO emissions and CO2 is measured on a wet basis, correct for moisture as follows: Install, operate, maintain, and quality assure a continuous moisture monitoring system for measuring and recording the moisture content of the flue gases, in order to correct the measured hourly volumetric flow rates for moisture when calculating CO concentrations. The following continuous moisture monitoring systems are acceptable: A continuous moisture sensor; an oxygen analyzer (or analyzers) capable of measuring O2 both on a wet basis and on a dry basis; or a stack temperature sensor and a moisture look-up table, i.e., a psychrometric chart (for saturated gas streams following wet scrubbers or other demonstrably saturated gas streams, only). The moisture monitoring system shall include as a component the automated data acquisition and handling system (DAHS) for recording and
reporting both the raw data (e.g., hourly average wet-and dry basis O2 values) and the hourly average values of the stack gas moisture content derived from those data. When a moisture look-up table is used, the moisture monitoring system shall be represented as a single component, the certified DAHS, in the monitoring plan for the unit or common stack.

(3) Complete a minimum of one cycle of CO and oxygen (or CO2) CEMS operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect CO and oxygen (or CO2) data concurrently. Collect at least four CO and oxygen (or CO2) 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 (or corrected to an CO2 percentage determined to be equivalent 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, 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, and 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, 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 have a documented detection limit of 0.5 milligram per actual cubic meter, or less.

(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 your 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) Calibrate the pH monitoring system in accordance with your monitoring plan and according to the manufacturer's instructions. Clean the pH probe at least once each process operating day. Maintain on-site documentation that your calibration frequency is sufficient to maintain the specified accuracy of your device.

(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 annually.

(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 (SO2) 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 elect to use an SO2 CEMS to demonstrate continuous compliance with the HCl emission limit, 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 either part 60 or part 75 of this chapter.

(1) The SO2 CEMS must be installed by the compliance date specified in §63.7495.

(2) For on-going quality assurance (QA), the SO2 CEMS must meet either the applicable daily and quarterly requirements in Procedure 1 of appendix F of part 60 or 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 SO2 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 SO2 data, you must operate the SO2 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 SO2 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 SO2 concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO2 data and do not use part 75 substitute data values.


§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). 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 stack 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 \((Q_i)\) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned \((C_i)\).

(iii) You must establish a maximum chlorine input level using Equation 7 of this section.

\[
Cl_{input} = \sum_{i=1}^{n} (C_i \times Q_i)
\]  
\(E_{q1} \cdot 7\)

Where:

\(Cl_{input}\) = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

\(C_i\) = Arithmetic average concentration of chlorine in fuel type, \(i\), analyzed according to §63.7521, in units of pounds per million Btu.

\(Q_i\) = Fraction of total heat input from fuel type, \(i\), based on the fuel mixture that has the highest content of chlorine during the initial compliance test. 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 \(Q_i\). For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

\(n\) = 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 \((Mercury_{input})\) 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 \((Q_i)\) 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.

\[
Mercury_{input} = \sum_{i=1}^{n} (HGi \times Q_i)
\]  
\(E_{q1} \cdot 8\)

Where:

\(Mercury_{input}\) = 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.

\(Q_i\) = Fraction of total heat input from fuel type, \(i\), based on the fuel mixture that has the highest mercury content during the initial compliance test. 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 \(Q_i\). For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

\(n\) = 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 (TSM\text{input}) 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 (TSM\text{i}).

(iii) You must establish a maximum TSM input level using Equation 9 of this section.

\[
TSM\text{input} = \sum_{i=1}^{n} (TSM\text{i} \times Qi)
\]
(Bq. 9)

Where:

\(TSM\text{input}\) = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

\(TSM\text{i}\) = 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 during the initial compliance test. 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. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

\(n\) = 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) 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.

\[
\bar{X} = \frac{1}{n} \sum_{i=1}^{n} X_i, \bar{Y} = \frac{1}{n} \sum_{i=1}^{n} Y_i \quad \text{(Eq. 10)}
\]

Where:

\(X_i\) = the PM CPMS data points for the three runs constituting the performance test,

\(Y_i\) = 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.

\[
R = \frac{Y_i}{(X_i - z)} \quad \text{(Eq. 11)}
\]
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 your 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.

\[
O_{h} = z + \frac{0.75 L}{R} \quad \text{(Eq. 12)}
\]

Where:

\( O_h \) = 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.

\[
O_h = \frac{1}{n} \sum_{i=1}^{n} X_i \quad \text{(Eq. 13)}
\]

Where:

\( X_i \) = 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.

\[
30 - \text{day} = \frac{\sum_{i=1}^{n} H_{pi}}{n} \quad \text{(Eq. 14)}
\]
Where:

30-day = 30-day average.

\( H_{pi} \) = is the hourly parameter value for hour \( i \)

\( n \) = is the number of valid hourly parameter values collected over the previous 30 operating days.

(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 instrument's 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 \( \text{pH} \) 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.

(iv) 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.)

(v) 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.

(vi) 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.

(vii) 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.

(viii) 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.

(ix) The operating limit for boilers or process heaters that demonstrate continuous compliance with the HCl emission limit using a \( \text{SO}_2 \) CEMS is to install and operate the \( \text{SO}_2 \) according to the requirements in §63.7525(m) establish a maximum \( \text{SO}_2 \) emission rate equal to the highest hourly average \( \text{SO}_2 \) 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.

\[ P_{90} = \text{mean} + (SD \times t) \quad \text{(Eq. 15)} \]

Where:

\[ P_{90} = 90\text{th percentile confidence level pollutant concentration, in pounds per million Btu}. \]

\[ \text{Mean} = \text{Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu}. \]

\[ SD = \text{Standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu. SD is calculated as the sample standard deviation divided by the square root of the number of samples}. \]

\[ t = \text{t distribution critical value for 90th percentile (t}_{0.1})\text{ probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a t-Distribution Critical Value Table}. \]

(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.

\[ HCl = \sum_{i=1}^{n} (Ci_{90} \times Qi \times 1.028) \quad \text{(Eq. 16)} \]

Where:

\[ HCl = \text{HCl emission rate from the boiler or process heater in units of pounds per million Btu}. \]

\[ Ci_{90} = 90\text{th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 15 of this section}. \]

\[ Qi = \text{Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of “1” for Qi. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used}. \]

\[ n = \text{Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine}. \]

\[ 1.028 = \text{Molecular weight ratio of HCl to chlorine}. \]

(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.

\[ Mercury = \sum_{i=1}^{n} (Hgi_{90} \times Qi) \quad \text{(Eq. 17)} \]
Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

\[ H_{gi90} = 90\text{th percentile confidence level concentration of mercury in fuel, } i, \text{ in units of pounds per million Btu as calculated according to Equation 15 of this section.} \]

\[ Q_i = \text{Fraction of total heat input from fuel type, } i, \text{ based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for } Q_i. \]

\[ n = \text{Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.} \]

(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.

\[ \text{Metals} = \sum_{i=1}^{n} (TSM_{i90} \times Q_i) \quad \text{(Eq. 18)} \]

Where:

Metals = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

\[ TSM_{i90} = 90\text{th percentile confidence level concentration of TSM in fuel, } i, \text{ in units of pounds per million Btu as calculated according to Equation 15 of this section.} \]

\[ Q_i = \text{Fraction of total heat input from fuel type, } i, \text{ based on the fuel mixture that has the highest TSM content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for } Q_i. \]

\[ n = \text{Number of different fuel types burned in your boiler or process heater for the mixture that has the highest TSM content.} \]

(d)[Reserved]

(e) You must include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to Table 3 to this subpart, and that the assessment is an accurate depiction of your facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

(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 items 5 and 6 of Table 3 of this subpart.
(i) If you opt to comply with the alternative SO2 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 SO2 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 SO2 operating limit by collecting the maximum hourly SO2 emission rate on the SO2 CEMS during the paired 3-run test for HCL. The maximum SO2 operating limit is equal to the highest hourly average SO2 concentration measured during the HCL performance test.


§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:

\[
E_{\text{Credits}} = \left( \sum_{i=1}^{n} E_{\text{IS\_actual}} \right) + E_{\text{baseline}}
\]  \hspace{1cm} \text{(Eq. 19)}

Where:

\( E_{\text{Credits}} \) = Energy Input Savings for all energy conservation measures implemented for an affected boiler, expressed as a decimal fraction of the baseline energy input.

\( E_{\text{IS\_actual}} \) = Energy Input Savings for each energy conservation measure, i, implemented for an affected boiler, million Btu per year.

\( E_{\text{baseline}} \) = 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 subject to numeric emission limits, 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.

\[
E_{\text{\_req}} = E_\text{\_req} \times (1 - E_{\text{Credits}}) \]  \hspace{1cm} \text{(Eq. 20)}

Where:
E_{adj} = \text{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} = \text{Emissions measured during the performance test, lb per million Btu steam output (or lb per MWh) for the affected boiler.}

E_{Credits} = \text{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.


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 periods of startup and shutdown, 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 of startup and shutdown, 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 semi-annual report.


§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 §63.7555(d), 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) Equal to or lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.

(ii) Equal to or 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 16 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 16 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 17 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 17 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)(ii) 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 subject to numeric emission limits.

(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. You must conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up. 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 perform the burner inspection any time prior to the tune-up or 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 NOx 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, a 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. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.

(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 30 operating days if you specified a 30 operating day basis in §63.7545(e)(2)(iii) for mercury CEMS or it must be 720 hours if you specified a 720 hour basis in §63.7545(e)(2)(iii) for mercury CEMS. 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 30 operating days if you specified a 30 operating day basis in §63.7545(e)(2)(iii) for HCl CEMS or it must be 720 hours if you specified a 720 hour basis in §63.7545(e)(2)(iii) for HCl CEMS. 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 18 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 18 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.

(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 (v) 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 items 5 and 6 of Table 3 of this subpart.


§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, 2011, 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) of this section, 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) of this section and must be submitted within 60 days of the compliance date specified at §63.7495(b).

(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,

(iii) Identification of whether you are complying the arithmetic mean of all valid hours of data from the previous 30 operating days or of the previous 720 hours. This identification shall be specified separately for each operating parameter.

(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 completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site 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 or process heater 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.


§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 subsequent annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or Table 4 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 semi-annual 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 June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495. If submitting an annual, biennial, or 5-year compliance report, 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 December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for your source in §63.7495.

(2) The first semi-annual 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 semi-annual 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 semi-annual 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.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(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 the requirements of a tune up you must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii) of this section, (xiv) and (xvii) of this section, and paragraph (c)(5)(iv) of this section for limited-use boiler or process heater.

(2) If you are complying with the fuel analysis you must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii), (vi), (x), (xi), (xiii), (xv), (xvii), (xviii) and paragraph (d) of this section.

(3) If you are complying with the applicable emissions limit with performance testing you must submit a compliance report with the information in (c)(5)(i) through (iii), (vi), (vii), (viii), (ix), (xi), (xiii), (xv), (xvii), (xviii) and paragraph (d) of this section.

(4) If you are complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (iii), (v), (vi), (x) through (xiii), (xv) through (xviii), 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 16 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 17 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).

(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 for CEMS (CO, HCl, SO₂, and mercury), 10 day rolling average values for CO CEMS when the limit is expressed as a 10 day instead of 30 day rolling average, and the PM CPMS 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.

(xviii) For each instance of startup or shutdown include the information required to be monitored, collected, or recorded according to the requirements of §63.7555(d).

(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, or from the work practice standards for periods if startup and shutdown, 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, operating limit, or work practice standard 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 (as defined in §63.2) required by this subpart, you must submit the results of the performance tests, including any fuel analyses, following the procedure specified in either paragraph (h)(1)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (http://www.epa.gov/ttn/chief/ert/index.html), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).) Performance test data must be submitted in a file format generated through use of the EPA's ERT or an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(2) Within 60 days after the date of completing each CEMS performance evaluation (as defined in 63.2), you must submit the results of the performance evaluation following the procedure specified in either paragraph (h)(2)(i) or (ii) of this section.

(i) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use
of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(ii) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

(3) You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.


§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).

(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.

(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) 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 16 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.

(4) 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 17 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.

(5) 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.

(6) 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.

(7) 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.

(8) 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 18 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.

(9) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(10) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

(11) For each startup period, for units selecting paragraph (2) of the definition of “startup” in §63.7575 you must maintain records of the time that clean fuel combustion begins; the time when you start feeding fuels that are not clean fuels; the time when useful thermal energy is first supplied; and the time when the PM controls are engaged.

(12) If you choose to rely on paragraph (2) of the definition of “startup” in §63.7575, for each startup period, you must maintain records of the hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly average CMS data (e.g., CEMS, PM CPMS, COMS, ESP total secondary electric power input, scrubber pressure drop, scrubber liquid flow rate) collected during each startup period to confirm that the control devices are engaged. In addition, if compliance with the PM emission limit is demonstrated using a PM control device, you must maintain records as specified in paragraphs (d)(12)(i) through (iii) of this section.

(i) For a boiler or process heater with an electrostatic precipitator, record the number of fields in service, as well as each field's secondary voltage and secondary current during each hour of startup.

(ii) For a boiler or process heater with a fabric filter, record the number of compartments in service, as well as the differential pressure across the baghouse during each hour of startup.

(iii) For a boiler or process heater with a wet scrubber needed for filterable PM control, record the scrubber's liquid flow rate and the pressure drop during each hour of startup.

(13) If you choose to use paragraph (2) of the definition of “startup” in §63.7575 and you find that you are unable to safely engage and operate your PM control(s) within 1 hour of first firing of non-clean fuels, you may choose to rely on paragraph (1) of definition of “startup” in §63.7575 or you may submit to the delegated permitting authority a request for a variance with the PM controls requirement, as described below.

(i) The request shall provide evidence of a documented manufacturer-identified safety issue.

(ii) The request shall provide information to document that the PM control device is adequately designed and sized to meet the applicable PM emission limit.

(iii) In addition, the request shall contain documentation that:

(A) The unit is using clean fuels to the maximum extent possible to bring the unit and PM control device up to the temperature necessary to alleviate or prevent the identified safety issues prior to the combustion of primary fuel;

(B) The unit has explicitly followed the manufacturer's procedures to alleviate or prevent the identified safety issue; and

(C) Identifies with specificity the details of the manufacturer's statement of concern.

(iv) You must comply with all other work practice requirements, including but not limited to data collection, recordkeeping, and reporting requirements.

(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.


§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 (4) 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 emission limits and work practice standards in §63.7500(a) and (b) under §63.6(g), except as specified in §63.7555(d)(13).

(2) 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).

(3) 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).

(4) Approval of major change to recordkeeping and reporting under §63.10(e) and as defined in §63.90.
§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 CO CEMS data. The 720 hours should be consecutive, but not necessarily continuous if operations were intermittent. For parameters other than CO, 30-day rolling average means either the arithmetic mean of all valid hours of data from 30 successive operating days or 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.

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 huts 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.

*Clean dry biomass* means any biomass-based solid fuel that have not been painted, pigment-stained, or pressure treated, does not contain contaminants at concentrations not normally associated with virgin biomass materials and has a moisture content of less than 20 percent and is not a solid waste.

*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), process heater(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), process heater(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, within the limit of performing a 24-hour on-site energy assessment.

(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.

Fossil fuel means natural gas, oil, coal, and any form of solid, liquid, or gaseous fuel derived from such material.

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 as demonstrated by monthly fuel analysis. 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 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, and vegetable oil.

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). For boilers and process heaters that co-fire natural gas or refinery gas with a solid or liquid fuel, the load fraction is determined by the actual heat input of the solid or liquid fuel
divided by heat input of the solid or liquid fuel fired during the performance test (e.g., if the performance test was conducted at 100 percent solid fuel firing, for 100 percent load firing 50 percent solid fuel and 50 percent natural gas 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 not using an acid gas wet scrubber or dry sorbent injection control technology to comply with the HCl emission limit, 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 \( \text{C}_3\text{H}_8 \).

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. For calculating rolling average emissions, an operating day does not include the hours of operation during startup or shutdown.

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 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 over its operating load range. A typical system consists of a flue gas oxygen and/or CO monitor that automatically provides a feedback signal to the combustion air controller or draft 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.

Rolling average means the average of all data collected during the applicable averaging period. For demonstration of compliance with a CO CEMS-based emission limit based on CO concentration a 30-day (10-day) rolling average is comprised of the average of all the hourly average concentrations over the previous 720 (240) operating hours calculated each operating day. To demonstrate compliance on a 30-day rolling average basis for parameters other than CO, you must indicate the basis of the 30-day rolling average period you are using for compliance, as discussed in §63.7545(e)(2)(iii). If you indicate the 30 operating day basis, you must calculate a new average value each operating day and shall include the measured hourly values for the preceding 30 operating days. If you select the 720 operating hours basis, you must average of all the hourly average concentrations over the previous 720 operating hours calculated each operating day.

Secondary material means the material as defined in §241.2 of this chapter.

Shutdown means the period in which cessation of operation of a boiler or process heater is initiated for any purpose. Shutdown begins when the boiler or process heater no longer supplies useful thermal energy (such as heat or steam) for heating, cooling, or process purposes and/or generates electricity or when no fuel is being fed to the boiler or process heater, whichever is earlier. Shutdown ends when the boiler or process heater no longer supplies useful thermal energy (such as steam or heat) for heating, cooling, or process purposes and/or generates electricity, and no fuel is being combusted 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:**

(1) Either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying useful thermal energy 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 useful thermal energy from the boiler or process heater is supplied for heating, and/or producing electricity, or for any other purpose, or

(2) The period in which operation of a boiler or process heater is initiated for any purpose. Startup begins with either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying useful thermal energy (such as steam or heat) for heating, cooling or process purposes, or producing electricity, or the firing of fuel in a boiler or process heater for any purpose after a shutdown event. Startup ends four hours after when the boiler or process heater supplies useful thermal energy (such as heat or steam) for heating, cooling, or process purposes, or generates electricity, whichever is earlier.

**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 the appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input (lb per MWh).

(4) For a boiler that performs multiple functions and produces steam to be used for any combination of paragraphs (1), (2), and (3) of this definition that includes electricity generation of paragraph (3) of this definition, the total energy output, in terms of MMBtu of steam output, is the sum of the energy content of steam sent directly to the process and/or used for heating (S1), the energy content of turbine steam sent to process plus energy in electricity according to paragraph (2) of this definition (S2), and the energy content of electricity generated by a electricity only turbine as paragraph (3) of this definition (MW(3)) and would be calculated using Equation 21 of this section. In the case of boilers supplying steam to one or more common heaters, S1, S2, and MW(3) for each boiler would be calculated based on the its (steam energy) contribution (fraction of total steam energy) to the common heater.

\[ S_{OM} = S_1 + S_2 + (MW_{(3)} \times CFn) \]  \hspace{1cm} (Eq. 21)

Where:

\( S_{OM} \) = Total steam output for multi-function boiler, MMBtu

\( S_1 \) = Energy content of steam sent directly to the process and/or used for heating, MMBtu

\( S_2 \) = Energy content of turbine steam sent to the process plus energy in electricity according to (2) above, MMBtu

\( MW_{(3)} \) = Electricity generated according to paragraph (3) of this definition, MWh

\( CFn \) = Conversion factor for the appropriate subcategory for converting electricity generated according to paragraph (3) of this definition to equivalent steam energy, MMBtu/MWh

\( CFn \) for emission limits for boilers in the unit designed to burn solid fuel subcategory = 10.8

\( CFn \) PM and CO emission limits for boilers in one of the subcategories of units designed to burn coal = 11.7

\( CFn \) PM and CO emission limits for boilers in one of the subcategories of units designed to burn biomass = 12.1
CFn for emission limits for boilers in one of the subcategories of units designed to burn liquid fuel = 11.2

CFn for emission limits for boilers in the unit designed to burn gas 2 (other) subcategory = 6.2

**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 or process heater 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 or process heater is not a temporary boiler or process heater if any one of the following conditions exists:

1. The equipment is attached to a foundation.
2. The boiler or process heater 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 or process heater that replaces a temporary boiler or process heater 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, process heat, 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.

**Useful thermal energy** means energy (i.e., steam, hot water, or process heat) that meets the minimum operating temperature, flow, and/or pressure required by any energy use system that uses energy provided by the affected boiler or process heater.

**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 8969 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.


**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]

<table>
<thead>
<tr>
<th>If your boiler or process heater is in this subcategory . . .</th>
<th>For the following pollutants . . .</th>
<th>The emissions must not exceed the following emission limits, except during startup and shutdown . . .</th>
<th>Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .</th>
<th>Using this specified sampling volume or test run duration . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Units in all subcategories designed to burn solid fuel.</td>
<td>a. HCl</td>
<td>2.2E-02 lb per MMBtu of heat input</td>
<td>2.5E-02 lb per MMBtu of steam output or 0.28 lb per MWh</td>
<td>For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.</td>
</tr>
<tr>
<td>If your boiler or process heater is in this subcategory . . .</td>
<td>For the following pollutants . . .</td>
<td>The emissions must not exceed the following emission limits, except during startup and shutdown . . .</td>
<td>Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .</td>
<td>Using this specified sampling volume or test run duration . . .</td>
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<td>------------------------------------------------------</td>
</tr>
<tr>
<td>1. If your boiler or process heater is in this subcategory . . .</td>
<td>b. Mercury</td>
<td>8.0E-07 lb per MMBtu of heat input</td>
<td>8.7E-07 lb per MMBtu of steam output or 1.1E-05 lb per MWh</td>
<td>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 collect a minimum of 4 dscm.</td>
</tr>
<tr>
<td>2. Units designed to burn coal/solid fossil fuel</td>
<td>a. Filterable PM (or TSM)</td>
<td>1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>3. Pulverized coal boilers designed to burn coal/solid fossil fuel</td>
<td>a. Carbon monoxide (CO) (or CEMS)</td>
<td>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)</td>
<td>0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>4. Stokers/others designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>5. Fluidized bed units designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1.2E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>7. Stokers/sloped grate/others designed to burn wet biomass fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>5.8E-01 lb per MMBtu of steam output or 6.8 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>Subcategory</td>
<td>Pollutants</td>
<td>Emission Limits</td>
<td>Using this specified sampling volume or test run duration</td>
<td></td>
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</tr>
<tr>
<td>8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel</td>
<td>b. Filterable PM (or TSM)</td>
<td>3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 2 dscm per run.</td>
<td></td>
</tr>
<tr>
<td>9. Fluidized bed units designed to burn biomass/bio-based solids</td>
<td>a. CO</td>
<td>460 ppm by volume on a dry basis corrected to 3 percent oxygen</td>
<td>1 hr minimum sampling time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>3.0E-02 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 2 dscm per run.</td>
<td></td>
</tr>
<tr>
<td>10. Suspension burners designed to burn biomass/bio-based solids</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>9.8E-03 lb per MMBtu of heat input; or (8.3E-05 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>3.0E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 2 dscm per run.</td>
<td></td>
</tr>
<tr>
<td>Subcategory</td>
<td>Pollutants</td>
<td>Emission limits</td>
<td>Alternative limits</td>
<td>Sampling volume or test run duration</td>
</tr>
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<td>----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids</td>
<td>CO (or CEMS)</td>
<td>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)</td>
<td>Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown.</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>Filterable PM (or TSM)</td>
<td>3.2E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>12. Fuel cell units designed to burn biomass/bio-based solids</td>
<td>CO</td>
<td>910 ppm by volume on a dry basis corrected to 3 percent oxygen</td>
<td>1.1 lb per MMBtu of steam output or 1.0E+01 lb per MWh</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>Filterable PM (or TSM)</td>
<td>2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 2 dscm per run.</td>
</tr>
<tr>
<td>13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids</td>
<td>CO (or CEMS)</td>
<td>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)</td>
<td>1.4 lb per MMBtu of steam output or 12 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>Filterable PM (or TSM)</td>
<td>2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>14. Units designed to burn liquid fuel</td>
<td>HCl</td>
<td>4.4E-04 lb per MMBtu of heat input</td>
<td>4.8E-04 lb per MMBtu of steam output or 6.1E-03 lb per MWh</td>
<td>For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.</td>
</tr>
</tbody>
</table>
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 . . .

| 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 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input) | 1.2E-03 lb per MMBtu of steam output or 1.6E-02 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. |

<p>| 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. |</p>
<table>
<thead>
<tr>
<th>If your boiler or process heater is in this subcategory...</th>
<th>For the following pollutants...</th>
<th>The emissions must not exceed the following emission limits, except during startup and shutdown...</th>
<th>Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown...</th>
<th>Using this specified sampling volume or test run duration...</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. Mercury</td>
<td>7.9E-06 lb per MMBtu of heat input</td>
<td>1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh</td>
<td>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, collect a minimum of 3 dscm.</td>
<td></td>
</tr>
<tr>
<td>d. Filterable PM (or TSM)</td>
<td>6.7E-03 lb per MMBtu of heat input or (2.1E-04 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 3 dscm per run.</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)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 April 1, 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.

\(^d\)An owner or operator may request an alternative test method under §63.7 of this chapter, in order that compliance with the carbon monoxide emissions limit be determined using carbon dioxide as a diluent correction in place of oxygen at 3%. EPA Method 19 F-factors and EPA Method 19 equations must be used to generate the appropriate CO\(_2\) correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The alternative test method request must account for any CO\(_2\) being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc.

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]

<table>
<thead>
<tr>
<th>If your boiler or process heater is in this subcategory . . .</th>
<th>For the following pollutants . . .</th>
<th>The emissions must not exceed the following emission limits, except during startup and shutdown . . .</th>
<th>The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .</th>
<th>Using this specified sampling volume or test run duration . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Units in all subcategories designed to burn solid fuel . .</td>
<td>a. HCl</td>
<td>2.2E-02 lb per MMBtu of heat input</td>
<td>2.5E-02 lb per MMBtu of steam output or 0.27 lb per MWh</td>
<td>For M26A, Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.</td>
</tr>
<tr>
<td></td>
<td>b. Mercury</td>
<td>5.7E-06 lb per MMBtu of heat input</td>
<td>6.4E-06 lb per MMBtu of steam output or 7.3E-05 lb per MWh</td>
<td>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 collect a minimum of 3 dscm.</td>
</tr>
<tr>
<td>2. Units design to burn coal/solid fossil fuel . . . . . . . .</td>
<td>a. Filterable PM (or TSM)</td>
<td>4.0E-02 lb per MMBtu of heat input; or (5.3E-05 lb per MMBtu of heat input)</td>
<td>4.2E-02 lb per MMBtu of steam output or 4.9E-01 lb per MWh; or (6.6E-05 lb per MMBtu of steam output or 6.5E-04 lb per MWh)</td>
<td>Collect a minimum of 2 dscm per run.</td>
</tr>
<tr>
<td></td>
<td>b. CO (or CEMS)</td>
<td>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)</td>
<td>0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>c. CO (or CEMS)</td>
<td>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)</td>
<td>0.14 lb per MMBtu of steam output or 1.7 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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)</td>
<td>0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory Details</th>
<th>Emissions Limit</th>
<th>Alternative Emissions Limit</th>
<th>Sampling Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1.3E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>3.7E-02 lb per MMBtu of heat input; or (2.4E-04 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 2 dscm per run.</td>
</tr>
<tr>
<td>7. Stokers/sloped grate/others designed to burn wet biomass fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1.4 lb per MMBtu of steam output or 17 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)</td>
<td>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-02 lb per MWh)</td>
<td>Collect a minimum of 1 dscm per run.</td>
</tr>
<tr>
<td>8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel</td>
<td>a. CO</td>
<td>460 ppm by volume on a dry basis corrected to 3 percent oxygen</td>
<td>4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)</td>
<td>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-02 lb per MWh)</td>
<td>Collect a minimum of 1 dscm per run.</td>
</tr>
<tr>
<td>9. Fluidized bed units designed to burn biomass/bio-based solid</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>4.6E-01 lb per MMBtu of steam output or 5.2 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>1.1E-01 lb per MMBtu of heat input; or (1.2E-03 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 1 dscm per run.</td>
</tr>
<tr>
<td>Process Description</td>
<td>Emissions Limitations</td>
<td>Alternative Emissions Limitations</td>
<td>Sampling Duration</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td><strong>10. Suspension burners designed to burn biomass/bio-based solid</strong></td>
<td>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)</td>
<td>1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM) 5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 2 dscm per run.</td>
<td></td>
</tr>
<tr>
<td><strong>11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solid</strong></td>
<td>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)</td>
<td>8.4E-01 lb per MMBtu of steam output or 8.4 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM) 2.8E-01 lb per MMBtu of heat input; or (2.0E-03 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 1 dscm per run.</td>
<td></td>
</tr>
<tr>
<td><strong>12. Fuel cell units designed to burn biomass/bio-based solid</strong></td>
<td>a. CO 1,100 ppm by volume on a dry basis corrected to 3 percent oxygen</td>
<td>2.4 lb per MMBtu of steam output or 12 lb per MWh</td>
<td>1 hr minimum sampling time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM) 2.0E-02 lb per MMBtu of heat input; or (5.8E-03 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 2 dscm per run.</td>
<td></td>
</tr>
<tr>
<td><strong>13. Hybrid suspension grate units designed to burn biomass/bio-based solid</strong></td>
<td>a. CO (or CEMS) 3,500 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)</td>
<td>3.5 lb per MMBtu of steam output or 39 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
<td></td>
</tr>
<tr>
<td>Subcategory</td>
<td>Pollutant</td>
<td>Emission Limit</td>
<td>Using this specified sampling volume or test run duration</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
<td>----------------</td>
<td>----------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Boilers or process heaters in this subcategory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Filterable PM (or TSM)</td>
<td>4.4E-01 lb per MMBtu of heat input; or (4.5E-04 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 1 dscm per run.</td>
<td></td>
</tr>
<tr>
<td>Boilers and process heaters in this subcategory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Units designed to burn liquid fuel</td>
<td>a. HCl</td>
<td>1.1E-03 lb per MMBtu of heat input</td>
<td>1.4E-03 lb per MMBtu of steam output or 1.6E-02 lb per MWh</td>
<td>For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.</td>
</tr>
<tr>
<td></td>
<td>b. Mercury</td>
<td>2.0E-06 lb per MMBtu of heat input</td>
<td>2.5E-06 lb per MMBtu of steam output or 2.8E-05 lb per MWh</td>
<td>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 collect a minimum of 2 dscm.</td>
</tr>
<tr>
<td>15. Units designed to burn heavy liquid fuel</td>
<td>a. CO</td>
<td>130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average</td>
<td>0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>6.2E-02 lb per MMBtu of heat input; or (2.0E-04 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 1 dscm per run.</td>
</tr>
<tr>
<td>16. Units designed to burn light liquid fuel</td>
<td>a. CO</td>
<td>130 ppm by volume on a dry basis corrected to 3 percent oxygen</td>
<td>0.13 lb per MMBtu of steam output or 1.4 lb per MWh</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>7.9E-03 lb per MMBtu of heat input; or (6.2E-05 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>17. Units designed to burn liquid fuel that are non-continental units</td>
<td>a. CO</td>
<td>130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test</td>
<td>0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>2.7E-01 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)</td>
<td>3.3E-01 lb per MMBtu of steam output or 3.8 lb per MWh; or (1.1E-03 lb per MMBtu of steam output or 1.2E-02 lb per MWh)</td>
<td>Collect a minimum of 2 dscm per run.</td>
</tr>
</tbody>
</table>
If your boiler or process heater is in this subcategory . . .

<table>
<thead>
<tr>
<th>For the following pollutants</th>
<th>The emissions must not exceed the following emission limits, except during startup and shutdown . . .</th>
<th>The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .</th>
<th>Using this specified sampling volume or test run duration . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Units designed to burn gas 2 (other) gases</td>
<td>a. CO 130 ppm by volume on a dry basis corrected to 3 percent oxygen</td>
<td>0.16 lb per MMBtu of steam output or 1.0 lb per MWh</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. HCl 1.7E-03 lb per MMBtu of heat input</td>
<td>2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh</td>
<td>For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.</td>
</tr>
<tr>
<td></td>
<td>c. Mercury 7.9E-06 lb per MMBtu of heat input</td>
<td>1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh</td>
<td>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 D6784b collect a minimum of 2 dscm.</td>
</tr>
<tr>
<td></td>
<td>d. Filterable PM (or TSM) 6.7E-03 lb per MMBtu of heat input or (2.1E-04 lb per MMBtu of heat input)</td>
<td>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)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
</tbody>
</table>

aIf 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.

bIncorporated by reference, see §63.14.

cAn owner or operator may request an alternative test method under §63.7 of this chapter, in order that compliance with the carbon monoxide emissions limit be determined using carbon dioxide as a diluent correction in place of oxygen at 3%. EPA Method 19 F-factors and EPA Method 19 equations must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The alternative test method request must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc.

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:

<table>
<thead>
<tr>
<th>If your unit is . . .</th>
<th>You must meet the following . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A new or existing boiler or process heater with a continuous oxygen trim system</td>
<td>Conduct a tune-up of the boiler or process heater every 5 years as specified in §63.7540.</td>
</tr>
<tr>
<td>that maintains an optimum air to fuel ratio, or a heat input capacity of less than</td>
<td></td>
</tr>
<tr>
<td>or equal to 5 million Btu per hour in any of the following subcategories: unit designed</td>
<td></td>
</tr>
<tr>
<td>to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light</td>
<td></td>
</tr>
<tr>
<td>liquid, or a limited use boiler or process heater</td>
<td></td>
</tr>
<tr>
<td>2. A new or existing boiler or process heater without a continuous oxygen trim system</td>
<td>Conduct a tune-up of the boiler or process heater biennially as specified in §63.7540.</td>
</tr>
<tr>
<td>and with heat input capacity of less than 10 million Btu per hour in the unit</td>
<td></td>
</tr>
<tr>
<td>designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or</td>
<td></td>
</tr>
<tr>
<td>a new or existing boiler or process heater with heat input capacity of less than 10</td>
<td></td>
</tr>
<tr>
<td>million Btu per hour, but greater than 5 million Btu per hour, in any of the following</td>
<td></td>
</tr>
<tr>
<td>subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or</td>
<td></td>
</tr>
<tr>
<td>unit designed to burn light liquid</td>
<td></td>
</tr>
<tr>
<td>3. A new or existing boiler or process heater without a continuous oxygen trim system</td>
<td>Conduct a tune-up of the boiler or process heater annually as specified in §63.7540. Units in</td>
</tr>
<tr>
<td>and with heat input capacity of 10 million Btu per hour or greater</td>
<td>either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work</td>
</tr>
<tr>
<td></td>
<td>practice for all regulated emissions under this subpart. Units in all other subcategories will</td>
</tr>
<tr>
<td></td>
<td>conduct this tune-up as a work practice for dioxins/furans.</td>
</tr>
<tr>
<td>4. An existing boiler or process heater located at a major source facility, not</td>
<td>Must have a one-time energy assessment performed by a qualified energy assessor. An energy</td>
</tr>
<tr>
<td>including limited use units</td>
<td>assessment completed on or after January 1, 2008, that meets or is amended to meet the energy</td>
</tr>
<tr>
<td></td>
<td>assessment requirements in this table, satisfies the energy assessment requirement. A facility</td>
</tr>
<tr>
<td></td>
<td>that operated under an energy management program developed according to the ENERGY STAR</td>
</tr>
<tr>
<td></td>
<td>guidelines for energy management or compatible with ISO 50001 for at least one year between</td>
</tr>
<tr>
<td></td>
<td>January 1, 2008 and the compliance date specified in §63.7495 that includes the affected units</td>
</tr>
<tr>
<td></td>
<td>also satisfies the energy assessment requirement. The energy assessment must include the</td>
</tr>
<tr>
<td></td>
<td>following with extent of the evaluation for items a. to e. appropriate for the on-site technical</td>
</tr>
<tr>
<td></td>
<td>hours listed in §63.7575:</td>
</tr>
<tr>
<td></td>
<td>a. A visual inspection of the boiler or process heater system.</td>
</tr>
<tr>
<td></td>
<td>b. An evaluation of operating characteristics of the boiler or process heater systems,</td>
</tr>
<tr>
<td></td>
<td>specifications of energy using systems, operating and maintenance procedures, and unusual</td>
</tr>
<tr>
<td></td>
<td>operating constraints.</td>
</tr>
<tr>
<td></td>
<td>c. An inventory of major energy use systems consuming energy from affected boilers and process</td>
</tr>
<tr>
<td></td>
<td>heaters and which are under the control of the boiler/process heater owner/operator.</td>
</tr>
</tbody>
</table>
If your unit is . . . & You must meet the following . . .

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.</td>
</tr>
<tr>
<td>(2)</td>
<td>e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.</td>
</tr>
<tr>
<td>(3)</td>
<td>f. A list of cost-effective energy conservation measures that are within the facility's control.</td>
</tr>
<tr>
<td>(4)</td>
<td>g. A list of the energy savings potential of the energy conservation measures identified.</td>
</tr>
<tr>
<td></td>
<td>h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.</td>
</tr>
</tbody>
</table>

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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>You must operate all CMS during startup.</td>
</tr>
<tr>
<td>b.</td>
<td>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, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis.</td>
</tr>
<tr>
<td>c.</td>
<td>You have the option of complying using either of the following work practice standards.</td>
</tr>
<tr>
<td>(1)</td>
<td>(1) If you choose to comply using definition (1) of “startup” in §63.7575, once you start firing fuels that are not clean fuels, 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, and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose, OR</td>
</tr>
<tr>
<td>(2)</td>
<td>(2) If you choose to comply using definition (2) of “startup” in §63.7575, once you start to feed fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits within 4 hours of start of supplying useful thermal energy. You must engage and operate PM control within one hour of first feeding fuels that are not clean fuels. You must start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this subpart that require operation of the control devices. You must develop and implement a written startup and shutdown plan, as specified in §63.7505(e).</td>
</tr>
<tr>
<td>d.</td>
<td>You must comply with all applicable emission limits at all times except during startup and shutdown periods at which time you must meet 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.</td>
</tr>
</tbody>
</table>
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 fuels that are not clean fuels 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, and SCR but, in any case, when necessary to comply with other standards applicable to the source that require operation of the control device.

If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, refinery gas, and liquefied petroleum gas. 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.

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:

Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters

<table>
<thead>
<tr>
<th>When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . .</th>
<th>You must meet these operating limits . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wet PM scrubber control on a boiler or process heater not using a PM CPMS</td>
<td>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 performance test demonstrating compliance with the PM emission limitation according to §63.7530(b) and Table 7 to this subpart.</td>
</tr>
<tr>
<td>2. Wet acid gas (HCl) scrubber(^a) control on a boiler or process heater not using an HCl CEMS</td>
<td>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 performance test demonstrating compliance with the HCl emission limitation according to §63.7530(b) and Table 7 to this subpart.</td>
</tr>
<tr>
<td>3. Fabric filter control on a boiler or process heater not using a PM CPMS</td>
<td>Maintain opacity to less than or equal to 10 percent opacity or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average); or</td>
</tr>
</tbody>
</table>

\(^a\)As specified in §63.7555(d)(13), the source may request an alternative timeframe with the PM controls requirement to the permitting authority (state, local, or tribal agency) that has been delegated authority for this subpart by EPA. The source must provide evidence that (1) it is unable to safely engage and operate the PM control(s) to meet the “fuel firing + 1 hour” requirement and (2) the PM control device is appropriately designed and sized to meet the filterable PM emission limit. It is acknowledged that there may be another control device that has been installed other than ESP that provides additional PM control (e.g., scrubber).

When complying with a Table 1, 2, 11, 12, or 13 numerical emission limit using . . . You must meet these operating limits . . .

<table>
<thead>
<tr>
<th>4. Electrostatic precipitator control on a boiler or process heater not using a PM CPMS</th>
<th>b. 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 or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average).</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. This option is only for boilers and process heaters not subject to PM CPMS or continuous compliance with an opacity limit (i.e., dry ESP). 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.</td>
<td></td>
</tr>
</tbody>
</table>

| 5. Dry scrubber or carbon injection control on a boiler or process heater 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 a boiler or process heater 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 or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average). |

| 7. Performance testing | For boilers and process heaters that demonstrate compliance with a performance test, maintain the 30-day rolling average operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test. |

| 8. Oxygen analyzer system | For boilers and process heaters subject to a CO emission limit that demonstrate compliance with an O₂ analyzer 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 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). |

| 9. SO₂ CEMS | For boilers or process heaters subject to an HCl emission limit that demonstrate compliance with an SO₂ CEMS, maintain the 30-day rolling average SO₂ emission rate at or below the highest hourly average SO₂ concentration measured during the HCl performance test, as specified in Table 8. |

---

*A wet acid gas scrubber is a control device that removes acid gases by contacting the combustion gas with an alkaline slurry or solution. Alkaline reagents include, but not limited to, lime, limestone and sodium.

[80 FR 72874, Nov. 20, 2015]
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:

<table>
<thead>
<tr>
<th>To conduct a performance test for the following pollutant . . .</th>
<th>You must . . .</th>
<th>Using, as appropriate . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Filterable PM</td>
<td>a. Select sampling ports location and the number of traverse points</td>
<td>Method 1 at 40 CFR part 60, appendix A-1 of this chapter.</td>
</tr>
<tr>
<td></td>
<td>b. Determine velocity and volumetric flow-rate of the stack gas</td>
<td>Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 to part 60 of this chapter.</td>
</tr>
<tr>
<td></td>
<td>c. Determine oxygen or carbon dioxide concentration of the stack gas</td>
<td>Method 3A or 3B at 40 CFR part 60, appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981.²</td>
</tr>
<tr>
<td></td>
<td>d. Measure the moisture content of the stack gas</td>
<td>Method 4 at 40 CFR part 60, appendix A-3 of this chapter.</td>
</tr>
<tr>
<td></td>
<td>e. Measure the PM emission concentration</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>f. Convert emissions concentration to lb per MMBtu emission rates</td>
<td>Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.</td>
</tr>
<tr>
<td>2. TSM</td>
<td>a. Select sampling ports location and the number of traverse points</td>
<td>Method 1 at 40 CFR part 60, appendix A-1 of this chapter.</td>
</tr>
<tr>
<td></td>
<td>b. Determine velocity and volumetric flow-rate of the stack gas</td>
<td>Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter.</td>
</tr>
<tr>
<td></td>
<td>c. Determine oxygen or carbon dioxide concentration of the stack gas</td>
<td>Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981.²</td>
</tr>
<tr>
<td></td>
<td>d. Measure the moisture content of the stack gas</td>
<td>Method 4 at 40 CFR part 60, appendix A-3 of this chapter.</td>
</tr>
<tr>
<td></td>
<td>e. Measure the TSM emission concentration</td>
<td>Method 29 at 40 CFR part 60, appendix A-8 of this chapter</td>
</tr>
<tr>
<td></td>
<td>f. Convert emissions concentration to lb per MMBtu emission rates</td>
<td>Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.</td>
</tr>
<tr>
<td>3. Hydrogen chloride</td>
<td>a. Select sampling ports location and the number of traverse points</td>
<td>Method 1 at 40 CFR part 60, appendix A-1 of this chapter.</td>
</tr>
<tr>
<td></td>
<td>b. Determine velocity and volumetric flow-rate of the stack gas</td>
<td>Method 2, 2F, or 2G at 40 CFR part 60, appendix A-2 of this chapter.</td>
</tr>
</tbody>
</table>
To conduct a performance test for the following pollutant . . .

<table>
<thead>
<tr>
<th>You must . . .</th>
<th>Using, as appropriate . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. Determine oxygen or carbon dioxide concentration of the stack gas</td>
<td>Method 3A or 3B at 40 CFR part 60, appendix A-2 of this chapter, or ANSI/ASME PTC 19.10-1981.①</td>
</tr>
<tr>
<td>d. Measure the moisture content of the stack gas</td>
<td>Method 4 at 40 CFR part 60, appendix A-3 of this chapter.</td>
</tr>
<tr>
<td>e. Measure the hydrogen chloride emission concentration</td>
<td>Method 26 or 26A (M26 or M26A) at 40 CFR part 60, appendix A-8 of this chapter.</td>
</tr>
<tr>
<td>f. Convert emissions concentration to lb per MMBtu emission rates</td>
<td>Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.</td>
</tr>
</tbody>
</table>

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 19.10-1981.① |
| 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 D6784.② |
| 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 19.10-1981.③ |
| 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.                                    |

①Incorporated by reference, see §63.14.

Table 6 to Subpart DDDD 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:

<table>
<thead>
<tr>
<th>To conduct a fuel analysis for the following pollutant</th>
<th>You must . . .</th>
<th>Using . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mercury</td>
<td>a. Collect fuel samples</td>
<td>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 solid), or ASTM D4177,a (for liquid), or ASTM D4057,a (for liquid), or equivalent.</td>
</tr>
<tr>
<td></td>
<td>b. Composite fuel samples</td>
<td>Procedure in §63.7521(d) or equivalent.</td>
</tr>
<tr>
<td></td>
<td>c. Prepare composited fuel samples</td>
<td>EPA SW-846-3050B,a (for solid samples), ASTM D2013/D2013M,a (for coal), ASTM D5198d (for biomass), or EPA 3050, (for solid fuel), or EPA 821-R-01-013,a (for liquid or solid), or equivalent.</td>
</tr>
<tr>
<td></td>
<td>d. Determine heat content of the fuel type</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>e. Determine moisture content of the fuel type</td>
<td>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 equivalent.</td>
</tr>
<tr>
<td></td>
<td>f. Measure mercury concentration in fuel sample</td>
<td>ASTM D6722,a (for coal), EPA SW-846-7471B,a or EPA 1631 or EPA 1631E (for solid samples), or EPA SW-846-7470A,a (for liquid samples), or EPA 821-R-01-013 (for liquid or solid), or equivalent.</td>
</tr>
<tr>
<td></td>
<td>g. Convert concentration into units of pounds of mercury per MMBtu of heat content</td>
<td>For fuel mixtures use Equation 8 in §63.7530.</td>
</tr>
<tr>
<td>2. HCl</td>
<td>a. Collect fuel samples</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>b. Composite fuel samples</td>
<td>Procedure in §63.7521(d) or equivalent.</td>
</tr>
<tr>
<td></td>
<td>c. Prepare composited fuel samples</td>
<td>EPA SW-846-3050B,a (for solid samples), ASTM D2013/D2013M,a (for coal), or ASTM D5198d (for biomass), or EPA 3050,a or equivalent.</td>
</tr>
<tr>
<td></td>
<td>d. Determine heat content of the fuel type</td>
<td>ASTM D5865,a (for coal) or ASTM E711,a (for biomass), ASTM D5864,a ASTM D240,a or equivalent.</td>
</tr>
<tr>
<td></td>
<td>e. Determine moisture content of the fuel type</td>
<td>ASTM D3173,a or ASTM E871,a or ASTM D5864,a or ASTM D240,a or ASTM D95,a (for liquid fuels), or ASTM D4006,a (for liquid fuels), or equivalent.</td>
</tr>
<tr>
<td></td>
<td>f. Measure chlorine concentration in fuel sample</td>
<td>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.</td>
</tr>
</tbody>
</table>
To conduct a fuel analysis for the following pollutant

<table>
<thead>
<tr>
<th>You must . . .</th>
<th>Using . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>g. Convert concentrations into units of pounds of HCl per MMBtu of heat content</td>
<td>For fuel mixtures use Equation 7 in §63.7530 and convert from chlorine to HCl by multiplying by 1.028.</td>
</tr>
</tbody>
</table>

3. Mercury Fuel Specification for other gas 1 fuels

| Method 30B (M30B) at 40 CFR part 60, appendix A-8 of this chapter or ASTM D5954, ASTM D6350, ISO 6978-1:2003(E), or ISO 6978-2:2003(E), or EPA-1631 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 or equivalent. |

4. TSM

a. Collect fuel samples

| Procedure in §63.7521(c) or ASTM D5192, ASTM D7430, ASTM D6883, ASTM D2234/D2234M (for coal) or ASTM D6323 (for coal or biomass), or ASTM D4177 (for liquid fuels) or ASTM D4057 (for liquid fuels), or equivalent. |

c. Prepare compositied fuel samples

| EPA SW-846-3050B (for solid samples), ASTM D2013/D2013M (for coal), ASTM D5198 or TAPPI T266 (for biomass), or EPA 3050 or equivalent. |

d. Determine heat content of the fuel type

| ASTM D5865 (for coal) or ASTM E711 (for biomass), or ASTM D5864 for liquids and other solids, or ASTM D240 or equivalent. |

e. Determine moisture content of the fuel type

| ASTM D3173 or ASTM E871, or D5864, or ASTM D240, or ASTM D95 (for liquid fuels), or ASTM D4006 (for liquid fuels), or ASTM D4177 (for liquid fuels) or ASTM D4057 (for liquid fuels), or equivalent. |

f. Measure TSM concentration in fuel sample

| ASTM D3683, or ASTM D4606, or ASTM D6357 or EPA 200.8 or EPA SW-846-6020, or EPA SW-846-6020A, or EPA SW-846-6010C, or EPA 7060 or EPA 7060A (for arsenic only), or EPA SW-846-7740 (for selenium only), or equivalent. |

g. Convert concentrations into units of pounds of TSM per MMBtu of heat content

| For fuel mixtures use Equation 9 in §63.7530. |

Incorporated by reference, see §63.14.
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:

<table>
<thead>
<tr>
<th>If you have an applicable emission limit for . . .</th>
<th>And your operating limits are based on . . .</th>
<th>You must . . .</th>
<th>Using . . .</th>
<th>According to the following requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PM, TSM, or mercury</td>
<td>a. Wet scrubber operating parameters</td>
<td>i. Establish a site-specific minimum scrubber pressure drop and minimum flow rate operating limit according to §63.7530(b)</td>
<td>(1) Data from the scrubber pressure drop and liquid flow rate monitors and the PM, TSM, or mercury performance test</td>
<td>(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.</td>
</tr>
<tr>
<td></td>
<td>b. Electrostatic precipitator operating parameters (option only for units that operate wet scrubbers)</td>
<td>i. Establish a site-specific minimum total secondary electric power input according to §63.7530(b)</td>
<td>(1) Data from the voltage and secondary amperage monitors during the PM or mercury performance test</td>
<td>(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.</td>
</tr>
<tr>
<td></td>
<td>c. Opacity</td>
<td>i. Establish a site-specific maximum opacity level</td>
<td>(1) Data from the opacity monitoring system during the PM performance test</td>
<td>(a) You must collect opacity readings every 15 minutes during the entire period of the performance tests. (b) Determine the average hourly opacity reading for each performance test run by computing the hourly averages using all of the 15-minute readings taken during each performance test run. (c) Determine the highest hourly average opacity reading measured during the test run demonstrating compliance with the PM (or TSM) emission limitation.</td>
</tr>
<tr>
<td>If you have an applicable emission limit for . . .</td>
<td>And your operating limits are based on . . .</td>
<td>You must . . .</td>
<td>Using . . .</td>
<td>According to the following requirements</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2. HCl</td>
<td>a. Wet scrubber operating parameters</td>
<td>i. Establish site-specific minimum effluent pH and flow rate operating limits according to §63.7530(b)</td>
<td>(1) Data from the pH and liquid flow-rate monitors and the HCl performance test</td>
<td>(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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>b. Dry scrubber operating parameters</td>
<td>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, the average value for each sorbent becomes the site-specific operating limit for that sorbent</td>
<td>(1) Data from the sorbent injection rate monitors and HCl or mercury performance test</td>
<td>(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests. (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, as defined in §63.7575, to determine the required injection rate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Alternative Maximum SO₂ emission rate</td>
<td>i. Establish a site-specific maximum SO₂ emission rate operating limit according to §63.7530(b)</td>
<td>(1) Data from SO₂ CEMS and the HCl performance test</td>
<td>(a) You must collect the SO₂ emissions data according to §63.7525(m) during the most recent HCl performance tests. (b) The maximum SO₂ emission rate is equal to the highest hourly average SO₂ emission rate measured during the most recent HCl performance tests.</td>
</tr>
<tr>
<td>If you have an applicable emission limit for . . .</td>
<td>And your operating limits are based on . . .</td>
<td>You must . . .</td>
<td>Using . . .</td>
<td>According to the following requirements</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>----------------</td>
<td>-------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>3. Mercury</td>
<td>a. Activated carbon injection</td>
<td>i. Establish a site-specific minimum activated carbon injection rate operating limit according to §63.7530(b)</td>
<td>(1) Data from the activated carbon rate monitors and mercury performance test</td>
<td>(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, as defined in §63.7575, to determine the required injection rate.</td>
</tr>
<tr>
<td></td>
<td>a. Oxygen</td>
<td>i. Establish a unit-specific limit for minimum oxygen level according to §63.7530(b)</td>
<td>(1) Data from the oxygen analyzer system specified in §63.7525(a)</td>
<td>(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests. (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.</td>
</tr>
<tr>
<td>4. Carbon monoxide for which compliance is demonstrated by a performance test</td>
<td>a. Boiler or process heater operating load</td>
<td>i. Establish a unit specific limit for maximum operating load according to §63.7520(c)</td>
<td>(1) Data from the operating load monitors or from steam generation monitors</td>
<td>(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 highest hourly average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.</td>
</tr>
</tbody>
</table>

*aOperating limits must be confirmed or reestablished during performance tests.*
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. 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.

[80 FR 72827, Nov. 20, 2015]

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:

<table>
<thead>
<tr>
<th>If you must meet the following operating limits or work practice standards . . .</th>
<th>You must demonstrate continuous compliance by . . .</th>
</tr>
</thead>
</table>
| 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 daily block average opacity to less than or equal to 10 percent or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation. |
| 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)(7) 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. Collecting the total secondary electric power input for the electrostatic precipitator according to §§63.7525 and 63.7535; and  
  d. Reducing the data to 30-day rolling averages; and  
  e. Maintaining the 30-day rolling average total secondary electric power input at or above the operating limit established during the performance test according to §63.7532(b). |
If you must meet the following operating limits or work practice standards . . . You must demonstrate continuous compliance by . . .

<table>
<thead>
<tr>
<th>8. Emission limits using fuel analysis</th>
<th>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).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and</td>
</tr>
<tr>
<td></td>
<td>b. Reduce the data to 12-month rolling averages; and</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>d. Calculate the HCl, mercury, and/or TSM emission rate from the boiler or process heater in units of lb/MMBtu using Equation 15 and Equations 17, 18, and/or 19 in §63.7530.</td>
</tr>
<tr>
<td>9. Oxygen content</td>
<td>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)(7).</td>
</tr>
<tr>
<td></td>
<td>b. Reducing the data to 30-day rolling averages; and</td>
</tr>
<tr>
<td></td>
<td>c. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen level measured during the CO performance test.</td>
</tr>
<tr>
<td>10. Boiler or process heater operating load</td>
<td>a. Collecting operating load data or steam generation data every 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>b. Reducing the data to 30-day rolling averages; and</td>
</tr>
<tr>
<td></td>
<td>c. Maintaining the 30-day rolling average operating load such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test according to §63.7520(c).</td>
</tr>
<tr>
<td>11. SO₂ emissions using SO₂ CEMS</td>
<td>a. Collecting the SO₂ CEMS output data according to §63.7525;</td>
</tr>
<tr>
<td></td>
<td>b. Reducing the data to 30-day rolling averages; and</td>
</tr>
<tr>
<td></td>
<td>c. Maintaining the 30-day rolling average SO₂ CEMS emission rate to a level at or below the highest hourly SO₂ rate measured during the HCl performance test according to §63.7530.</td>
</tr>
</tbody>
</table>

If you must meet the following operating limits or work practice standards . . . You must demonstrate continuous compliance by . . .

<table>
<thead>
<tr>
<th>8. Emission limits using fuel analysis</th>
<th>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).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and</td>
</tr>
<tr>
<td></td>
<td>b. Reduce the data to 12-month rolling averages; and</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>d. Calculate the HCl, mercury, and/or TSM emission rate from the boiler or process heater in units of lb/MMBtu using Equation 15 and Equations 17, 18, and/or 19 in §63.7530.</td>
</tr>
</tbody>
</table>

9. Oxygen content

<table>
<thead>
<tr>
<th>8. Emission limits using fuel analysis</th>
<th>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).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and</td>
</tr>
<tr>
<td></td>
<td>b. Reduce the data to 12-month rolling averages; and</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>d. Calculate the HCl, mercury, and/or TSM emission rate from the boiler or process heater in units of lb/MMBtu using Equation 15 and Equations 17, 18, and/or 19 in §63.7530.</td>
</tr>
</tbody>
</table>

9. Oxygen content

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). |
<table>
<thead>
<tr>
<th>You must submit a(n)</th>
<th>The report must contain . . .</th>
<th>You must submit the report . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 for periods of startup and shutdown 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</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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 for periods of startup and shutdown, during the reporting period, the report must contain the information in §63.7550(d); and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


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:

<table>
<thead>
<tr>
<th>Citation</th>
<th>Subject</th>
<th>Applies to subpart DDDDD</th>
</tr>
</thead>
<tbody>
<tr>
<td>§63.1</td>
<td>Applicability</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.2</td>
<td>Definitions</td>
<td>Yes. Additional terms defined in §63.7575</td>
</tr>
<tr>
<td>§63.3</td>
<td>Units and Abbreviations</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.4</td>
<td>Prohibited Activities and Circumvention</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.5</td>
<td>Preconstruction Review and Notification Requirements</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.6(a), (b)(1)-(b)(5), (b)(7), (c)</td>
<td>Compliance with Standards and Maintenance Requirements</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.6(e)(1)(i)</td>
<td>General duty to minimize emissions.</td>
<td>No. See §63.7500(a)(3) for the general duty requirement.</td>
</tr>
<tr>
<td>§63.6(e)(1)(ii)</td>
<td>Requirement to correct malfunctions as soon as practicable.</td>
<td>No.</td>
</tr>
<tr>
<td>§63.6(e)(3)</td>
<td>Startup, shutdown, and malfunction plan requirements.</td>
<td>No.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Applies to subpart DDDDD</td>
</tr>
<tr>
<td>----------</td>
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<td>-------------------------</td>
</tr>
<tr>
<td>§63.6(f)(1)</td>
<td>Startup, shutdown, and malfunction exemptions for compliance with non-opacity emission standards.</td>
<td>No.</td>
</tr>
<tr>
<td>§63.6(f)(2) and (3)</td>
<td>Compliance with non-opacity emission standards.</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.6(g)</td>
<td>Use of alternative standards</td>
<td>Yes, except §63.7555(d)(13) specifies the procedure for application and approval of an alternative timeframe with the PM controls requirement in the startup work practice (2).</td>
</tr>
<tr>
<td>§63.6(h)(1)</td>
<td>Startup, shutdown, and malfunction exemptions to opacity standards.</td>
<td>No. See §63.7500(a).</td>
</tr>
<tr>
<td>§63.6(h)(2) to (h)(9)</td>
<td>Determining compliance with opacity emission standards</td>
<td>No. Subpart DDDDD specifies opacity as an operating limit not an emission standard.</td>
</tr>
<tr>
<td>§63.6(i)</td>
<td>Extension of compliance</td>
<td>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.</td>
</tr>
<tr>
<td>§63.6(j)</td>
<td>Presidential exemption.</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.7(a), (b), (c), and (d)</td>
<td>Performance Testing Requirements</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.7(e)(1)</td>
<td>Conditions for conducting performance tests</td>
<td>No. Subpart DDDDD specifies conditions for conducting performance tests at §63.7520(a) to (c).</td>
</tr>
<tr>
<td>§63.7(e)(2)-(e)(9), (f), (g), and (h)</td>
<td>Performance Testing Requirements</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.8(a) and (b)</td>
<td>Applicability and Conduct of Monitoring</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.8(c)(1)</td>
<td>Operation and maintenance of CMS</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.8(c)(1)(i)</td>
<td>General duty to minimize emissions and CMS operation</td>
<td>No. See §63.7500(a)(3).</td>
</tr>
<tr>
<td>§63.8(c)(1)(ii)</td>
<td>Operation and maintenance of CMS</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.8(c)(1)(iii)</td>
<td>Startup, shutdown, and malfunction plans for CMS</td>
<td>No.</td>
</tr>
<tr>
<td>§63.8(c)(2) to (c)(9)</td>
<td>Operation and maintenance of CMS</td>
<td>Yes.</td>
</tr>
<tr>
<td>§63.8(d)(1) and (2)</td>
<td>Monitoring Requirements, Quality Control Program</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Applies to subpart DDDDD</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>§63.8(d)(3)</td>
<td>Written procedures for CMS  &lt;br&gt;Yes, except for the last sentence, which refers to a startup, shutdown, and malfunction plan.  &lt;br&gt;Startup, shutdown, and malfunction plans are not required.</td>
<td></td>
</tr>
<tr>
<td>§63.8(e)</td>
<td>Performance evaluation of a CMS  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.8(f)</td>
<td>Use of an alternative monitoring method.  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.8(g)</td>
<td>Reduction of monitoring data  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.9</td>
<td>Notification Requirements  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(a), (b)(1)</td>
<td>Recordkeeping and Reporting Requirements  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(i)</td>
<td>Recordkeeping of occurrence and duration of startups or shutdowns  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(ii)</td>
<td>Recordkeeping of malfunctions  &lt;br&gt;No.  See §63.7555(d)(7) for recordkeeping of occurrence and duration and §63.7555(d)(8) for actions taken during malfunctions.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(iii)</td>
<td>Maintenance records  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(iv) and (v)</td>
<td>Actions taken to minimize emissions during startup, shutdown, or malfunction  &lt;br&gt;No.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(vi)</td>
<td>Recordkeeping for CMS malfunctions  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(vii) to (xiv)</td>
<td>Other CMS requirements  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(3)</td>
<td>Recordkeeping requirements for applicability determinations  &lt;br&gt;No.</td>
<td></td>
</tr>
<tr>
<td>§63.10(c)(1) to (9)</td>
<td>Recordkeeping for sources with CMS  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(c)(10) and (11)</td>
<td>Recording nature and cause of malfunctions, and corrective actions  &lt;br&gt;No.  See §63.7555(d)(7) for recordkeeping of occurrence and duration and §63.7555(d)(8) for actions taken during malfunctions.</td>
<td></td>
</tr>
<tr>
<td>§63.10(c)(12) and (13)</td>
<td>Recordkeeping for sources with CMS  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(c)(15)</td>
<td>Use of startup, shutdown, and malfunction plan  &lt;br&gt;No.</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(1) and (2)</td>
<td>General reporting requirements  &lt;br&gt;Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(3)</td>
<td>Reporting opacity or visible emission observation results  &lt;br&gt;No.</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(4)</td>
<td>Progress reports under an extension of compliance  &lt;br&gt;Yes.</td>
<td></td>
</tr>
</tbody>
</table>
§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.


Table 11 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

<table>
<thead>
<tr>
<th>If your boiler or process heater is in this subcategory . . .</th>
<th>For the following pollutants . . .</th>
<th>The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .</th>
<th>Using this specified sampling volume or test run duration . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Units in all subcategories designed to burn solid fuel</td>
<td>a. HCl</td>
<td>0.022 lb per MMBtu of heat input</td>
<td>For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.</td>
</tr>
<tr>
<td>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</td>
<td>a. Mercury</td>
<td>8.0E-07a lb per MMBtu of heat input</td>
<td>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 D6784b collect a minimum of 4 dscm.</td>
</tr>
<tr>
<td>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</td>
<td>a. Mercury</td>
<td>2.0E-06 lb per MMBtu of heat input</td>
<td>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 D6784b collect a minimum of 4 dscm.</td>
</tr>
</tbody>
</table>
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 . . .
---|---|---|---
4. Units design 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) | Collect a minimum of 3 dscm per run.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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) | 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.
10. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel | a. CO | 560 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average | 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) | Collect a minimum of 2 dscm per run.
11. 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.
<table>
<thead>
<tr>
<th>If your boiler or process heater is in this subcategory</th>
<th>For the following pollutants</th>
<th>The emissions must not exceed the following emission limits, except during periods of startup and shutdown</th>
<th>Using this specified sampling volume or test run duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Suspension burners designed to burn biomass/bio-based solids</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>9.8E-03 lb per MMBtu of heat input; or (8.3E-05 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>13. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids</td>
<td>a. CO (or CEMS)</td>
<td>1,010 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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>3.0E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 2 dscm per run.</td>
</tr>
<tr>
<td>14. Fuel cell units designed to burn biomass/bio-based solids</td>
<td>a. CO</td>
<td>910 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 2 dscm per run.</td>
</tr>
<tr>
<td>15. Hybrid suspension grate boiler designed to burn biomass/bio-based solids</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>16. Units designed to burn liquid fuel</td>
<td>a. HCl</td>
<td>4.4E-04 lb per MMBtu of heat input</td>
<td>For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.</td>
</tr>
<tr>
<td></td>
<td>b. Mercury</td>
<td>4.8E-07 lb per MMBtu of heat input</td>
<td>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 collect a minimum of 4 dscm.</td>
</tr>
</tbody>
</table>
### If your boiler or process heater is in this subcategory . . .

<table>
<thead>
<tr>
<th>For the following pollutants . . .</th>
<th>The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .</th>
<th>Using this specified sampling volume or test run duration . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Units designed to burn heavy liquid fuel</td>
<td>a. CO 130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM) 1.3E-02 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>18. Units designed to burn light liquid fuel</td>
<td>a. CO 130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM) 2.0E-03 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>19. Units designed to burn liquid fuel that are non-continental units</td>
<td>a. CO 130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM) 2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 4 dscm per run.</td>
</tr>
<tr>
<td>20. Units designed to burn gas 2 (other) gases</td>
<td>a. CO 130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. HCl 1.7E-03 lb per MMBtu of heat input</td>
<td>For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.</td>
</tr>
<tr>
<td></td>
<td>c. Mercury 7.9E-06 lb per MMBtu of heat input</td>
<td>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, collect a minimum of 3 dscm.</td>
</tr>
<tr>
<td></td>
<td>d. Filterable PM (or TSM) 6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
</tbody>
</table>

*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 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.

*c* An owner or operator may request an alternative test method under §63.7 of this chapter, in order that compliance with the carbon monoxide emissions limit be determined using carbon dioxide as a diluent correction in place of oxygen at 3%. EPA Method 19 F-factors and EPA Method 19 equations must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen
correction is to be done on a dry basis. The alternative test method request must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc.

[80 FR 72831, Nov. 20, 2015]

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 May 20, 2011, and Before December 23, 2011

<table>
<thead>
<tr>
<th>If your boiler or process heater is in this subcategory . . .</th>
<th>For the following pollutants . . .</th>
<th>The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .</th>
<th>Using this specified sampling volume or test run duration . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Units in all subcategories designed to burn solid fuel</td>
<td>a. HCl</td>
<td>0.022 lb per MMBtu of heat input</td>
<td>For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.</td>
</tr>
<tr>
<td></td>
<td>b. Mercury</td>
<td>3.5E-06 lb per MMBtu of heat input</td>
<td>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 collect a minimum of 3 dscm.</td>
</tr>
<tr>
<td>2. Units design to burn coal/solid fossil fuel</td>
<td>a. Filterable PM (or TSM)</td>
<td>1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>3. Pulverized coal boilers designed to burn coal/solid fossil fuel</td>
<td>a. Carbon monoxide (CO) (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>4. Stokers designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>5. Fluidized bed units designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td>7. Stokers/sloped grate/others designed to burn wet biomass fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)</td>
<td>Collect a minimum of 2 dscm per run.</td>
</tr>
<tr>
<td>Subcategory</td>
<td>For the following pollutants</td>
<td>The emissions must not exceed the following emission limits, except during periods of startup and shutdown</td>
<td>Using this specified sampling volume or test run duration</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel | a. CO  
                   b. Filterable PM (or TSM) | 460 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average  
                      3.0E-02 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input) | 1 hr minimum sampling time.  
                      Collect a minimum of 2 dscm per run. |
| 9. Fluidized bed units designed to burn biomass/bio-based solids | a. CO (or CEMS)  
                   b. Filterable PM (or TSM) | 260 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, 5 30-day rolling average)  
                      9.8E-03 lb per MMBtu of heat input; or (8.3E-05 lb per MMBtu of heat input) | 1 hr minimum sampling time.  
                      Collect a minimum of 3 dscm per run. |
| 10. Suspension burners designed to burn biomass/bio-based solids | a. CO (or CEMS)  
                   b. Filterable PM (or TSM) | 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, 5 10-day rolling average)  
                      3.0E-02 lb per MMBtu of heat input; or (6.6E-03 lb per MMBtu of heat input) | 1 hr minimum sampling time.  
                      Collect a minimum of 2 dscm per run. |
| 11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids | a. CO (or CEMS)  
                   b. Filterable PM (or TSM) | 470 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, 5 10-day rolling average)  
                      3.2E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input) | 1 hr minimum sampling time.  
                      Collect a minimum of 3 dscm per run. |
| 12. Fuel cell units designed to burn biomass/bio-based solids | a. CO  
                   b. Filterable PM (or TSM) | 910 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average  
                      2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input) | 1 hr minimum sampling time.  
                      Collect a minimum of 2 dscm per run. |
| 13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids | a. CO (or CEMS)  
                   b. Filterable PM (or TSM) | 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, 5 30-day rolling average)  
                      2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input) | 1 hr minimum sampling time.  
                      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 | For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run. |
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 . . . |
--- | --- | --- | --- |
15. Units designed to burn heavy liquid fuel | b. Mercury | 4.8E-07a 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 D6784b collect a minimum of 4 dscm. |
16. Units designed to burn light liquid fuel | a. CO | 130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average | 1 hr minimum sampling time. |
17. Units designed to burn liquid fuel that are non-continental units | b. Filterable PM (or TSM) | 1.3E-02 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input) | Collect a minimum of 2 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, 3-run average | 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 D6784b 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. |

aIf 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 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.

bIncorporated by reference, see §63.14.
An owner or operator may request an alternative test method under §63.7 of this chapter, in order that compliance with the carbon monoxide emissions limit be determined using carbon dioxide as a diluent correction in place of oxygen at 3%. EPA Method 19 F-factors and EPA Method 19 equations must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The alternative test method request must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc.

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 April 1, 2013

<table>
<thead>
<tr>
<th>If your boiler or process heater is in this subcategory . . .</th>
<th>For the following pollutants . . .</th>
<th>The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .</th>
<th>Using this specified sampling volume or test run duration . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Units in all subcategories designed to burn solid fuel</td>
<td>a. HCl</td>
<td>0.022 lb per MMBtu of heat input</td>
<td>For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.</td>
</tr>
<tr>
<td></td>
<td>b. Mercury</td>
<td>8.6E⁻⁰⁷ lb per MMBtu of heat input</td>
<td>For M29, collect a minimum of 0.04 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 collect a minimum of 4 dscm.</td>
</tr>
<tr>
<td>2. Pulverized coal boilers designed to burn coal/solid fossil fuel</td>
<td>a. Carbon monoxide (CO) (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>1.1E⁻⁰³ lb per MMBtu of heat input; or (2.3E⁻⁰⁵ lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>3. Stokers designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>2.8E⁻⁰² lb per MMBtu of heat input; or (2.3E⁻⁰⁵ lb per MMBtu of heat input)</td>
<td>Collect a minimum of 2 dscm per run.</td>
</tr>
<tr>
<td>4. Fluidized bed units designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
<tr>
<td></td>
<td>b. Filterable PM (or TSM)</td>
<td>1.1E⁻⁰³ lb per MMBtu of heat input; or (2.3E⁻⁰⁵ lb per MMBtu of heat input)</td>
<td>Collect a minimum of 3 dscm per run.</td>
</tr>
<tr>
<td>5. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel</td>
<td>a. CO (or CEMS)</td>
<td>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)</td>
<td>1 hr minimum sampling time.</td>
</tr>
</tbody>
</table>
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 . . . |
---|---|---|---|
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) | 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. |
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) | 3.0E-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. |
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 (6.8E-05 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, 30-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-05 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. |
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 . . . |
---|---|---|---|
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# 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 D6784b 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) | 1.1E-03# lb per MMBtu of heat input; or (2.9E-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# 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) | 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. |
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 D6784b 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. |

#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.

bIncorporated by reference, see §63.14.

cAn owner or operator may request an alternative test method under §63.7 of this chapter, in order that compliance with the carbon monoxide emissions limit be determined using carbon dioxide as a diluent correction in place of oxygen at 3%. EPA Method 19 F-factors and EPA Method 19 equations must be used to generate the appropriate CO$_2$ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The alternative test method request must account for any CO$_2$ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

<table>
<thead>
<tr>
<th>Source Name:</th>
<th>General Motors LLC Fort Wayne Assembly</th>
</tr>
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<tbody>
<tr>
<td>Source Location:</td>
<td>12200 Lafayette Center Road, Roanoke, Indiana 46783</td>
</tr>
<tr>
<td>County:</td>
<td>Allen</td>
</tr>
<tr>
<td>SIC Code:</td>
<td>3711 (Motor Vehicles and Passenger Car Bodies)</td>
</tr>
<tr>
<td>Permit Renewal No.:</td>
<td>T003-41020-00036</td>
</tr>
<tr>
<td>Permit Reviewer:</td>
<td>Aida DeGuzman</td>
</tr>
</tbody>
</table>

On February 7, 2019, General Motors LLC Fort Wayne Assembly submitted an application to the Office of Air Quality (OAQ) requesting to renew its operating permit. OAQ has reviewed the operating permit renewal application from General Motors LLC Fort Wayne Assembly relating to the operation of a stationary automobile and light duty truck assembly plant. General Motors LLC Fort Wayne Assembly was issued its second Part 70 Operating Permit Renewal (T003-33417-00036) on November 13, 2014.

Source Definition

General Motors LLC has two plants in Roanoke, Indiana. The GM assembly plant (ID # 003-00036) is located at 12200 Lafayette Road, Roanoke. The GM warehouse (ID # 003-00094) is located at 12808 Stonebridge Road, Roanoke. IDEM, OAQ has examined whether these two plants are part of the same major source. The term "major source" is defined at 326 Indiana Administrative Code (IAC) 2-7-1(22). Title 326 of the Indiana Administrative Code is available at http://www.in.gov/legislative/iac/iac_title?iact=326 on the Internet. In order to consider the plants as one major source, all three of the following criteria must be met:

1. The plants must be under common ownership or common control;
2. The plants must have the same two-digit major Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and
3. The plants must be located on the same, contiguous or adjacent properties.

The first criterion to be considered is whether the plants are under common ownership or control. Common ownership means the sources are owned or operated by the same person. Under Indiana law, a corporation is a person. General Motors LLC owns both plants, so the first element of the definition is met.

The second criterion is a common two-digit Standard Industrial Classification (SIC) Code or if one plant is a support facility for another. The SIC Code describes the plant's primary product or service. The SIC Code Manual of 1987 sets out how to determine the proper SIC Code for each type of business. More information about SIC Codes is available at http://www.osha.gov/pls/imis/sic_manual.html on the Internet. The assembly plant has the two-digit SIC 37 for the Major Group Transportation Equipment. The warehouse is an auxiliary establishment primarily engaged in performing warehouse services to the assembly plant. Under the Principals of Classification of the SIC Code Manual, it has the same SIC Code as the assembly plant, 37. Since the plants have the same two-digit SIC Code the second criterion is met. It is not necessary to determine if either plant is a support facility to the other plant.

The last criteria of the definition is whether the plants are on the same, contiguous or adjacent properties. The plants are not located on the same property and do not share a common property border. Since the plants are not located on the same or contiguous properties, IDEM, OAQ examined whether they are located on adjacent properties.
The term “adjacent” is not defined in Indiana’s rules. IDEM’s Nonrule Policy Document, NPD Air-005 (available at http://www.in.gov/idem/4694.htm on IDEM’s website) is guidance for applying the definition of “major source” in 326 IAC 2-1-7(22). NPD Air-005 adds the following guidance:

- Properties that actually abut at any point would satisfy the requirement of contiguous or adjacent property.
- Properties that are separated by a public road or public property would satisfy this requirement, absent special circumstances.
- Other scenarios would be examined on an individual basis with the focus on the distance between the activities and the relationship between the activities.

All IDEM evaluations of adjacency are done on a case-by-case basis looking at the specific factors for the plants involved. In addition to determining the distance between the plant properties, IDEM asks:

1. Are materials routinely transferred between the plants?
2. Do managers or other workers frequently shuttle back and forth to be involved actively in the plants?
3. Is the production process itself split in any way between the plants?

These questions focus on whether the separate sources are so interrelated that they are functioning as one plant and whether the distance between them is small enough that it enables them to operate as one plant. U.S. EPA Assistant Administrator Gina McCarty issued a memorandum on September 22, 2009 that confirmed U.S. EPA’s view that each source determination must be done on a case-by-case basis and stated that after that analysis is completed it may be that physical proximity serves as an overwhelming factor in determining if the plant properties are adjacent.

The two (2) plants are located on properties that are about 4 miles apart. The warehouse sends sub-assemblies to the assembly plant on a daily basis. All the warehouse’s output goes to the assembly plant. There are no employees actively involved at both plants. There is a split in production since warehousing is part of the production process. Considering all these factors, IDEM, OAQ has determined that the two plants are located on adjacent properties. The third criterion of the definition is satisfied.

IDEM, OAQ finds that the assembly plant and the warehouse meet all three parts of the major source definition and, therefore, are part of the same major source.

This determination was made in this permitting action, Part 70 Operating Renewal No. T 003-41020-00036.

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T003-33417-00036 on November 13, 2014. The source has since received the following approval:

<table>
<thead>
<tr>
<th>Permit Type</th>
<th>Permit Number</th>
<th>Issuance Date</th>
</tr>
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<tbody>
<tr>
<td>Significant Source Modification</td>
<td>003-34856-00036</td>
<td>February 3, 2015</td>
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<tr>
<td>Significant Permit Modification</td>
<td>003-34985-00036</td>
<td>February 23, 2015</td>
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<tr>
<td>Administrative Amendment</td>
<td>003-35772-00036</td>
<td>May 12, 2015</td>
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<tr>
<td>Significant Permit Modification</td>
<td>003-35825-00036</td>
<td>September 15, 2015</td>
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<tr>
<td>Significant Source Modification</td>
<td>003-37324-00036</td>
<td>September 26, 2016</td>
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<tr>
<td>Significant Permit Modification</td>
<td>003-37339-00036</td>
<td>October 13, 2016</td>
</tr>
<tr>
<td>Administrative Amendment</td>
<td>003-38728-00036</td>
<td>July 7, 2017</td>
</tr>
<tr>
<td>Minor Source Modification</td>
<td>003-38715-00036</td>
<td>July 7, 2017</td>
</tr>
<tr>
<td>Significant Source Modification</td>
<td>003-39673-00036</td>
<td>June 1, 2018</td>
</tr>
</tbody>
</table>
All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

## Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

### General Motors LLC – Lafayette Center Road

(a) Facility-wide natural gas usage, including combustion units described as follows:

1. One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;
   
   Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

   Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

2. One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;
   
   Under 40 CFR 60, Subpart Db, this boiler is considered an affected facility.

   Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.

3. Fifty-six (56) space heaters and process heaters using natural gas, identified as 007, with a total heat input capacity of 50.6 MMBtu/hr, using no control, and exhausting to various stacks denoted as stack 13; and

4. Twenty (20) natural gas fired air supply house burners, constructed in 2001, identified as MOD 1 through MOD 10 (each mod air supply house contains two burners), with emissions exhausted through their respective booth stacks denoted as SO4, and each burner heat input rated at 12.6 MMBtu per hour.

(b) One (1) ELPO Dipping System, identified as 006, constructed in 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
   
   Under 40 CFR 60, Subpart MM, this is considered an affected facility.

   Under 40 CFR 63, Subpart IIII, this is considered an affected facility.

(c) One (1) Underbody Robotic Sealer Operation, identified as Stone Guard Sealer, approved in 2012 for operation, using no controls, and exhausting indoors;
   
   Under 40 CFR 63, Subpart IIII, this unit is considered an affected facility.

(d) One (1) Primer Surfacer System, identified as 010, constructed in 1994 and modified in
2010, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;

Under 40 CFR 60, Subpart MM, this is considered an affected facility.

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(e) One (1) Topcoat System, identified as 008, constructed in 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04;

Under 40 CFR 60, Subpart MM, this is considered an affected facility.

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(f) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in 1985, using no controls, and exhausting to stacks 07 and 08;

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(g) One (1) Final Repair Operation, identified as 012, constructed in 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(h) One (1) Maintenance Paint Operation, identified as 013, constructed in 1985, using no control, and exhausting to stack 10;

Under 40 CFR 63, Subpart III, this is considered an affected facility.

(i) One (1) Gasoline Fill Operation, identified as 014, constructed in 1985, including tanks 8 and 9, each with a capacity of 20,000 gallons. The vehicles being fueled is equipped with an Onboard Refueling Vapor Recovery (ORVR) System as VOC control; and

(j) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

Under 40 CFR 60, Subpart JJJJ, these four (4) generators are considered affected facilities.

Under 40 CFR 63, Subpart ZZZZ, these four (4) generators are considered affected facilities.

(k) The following equipment approved in 2015 for construction to accommodate the T1 Full Size Truck Project:

(1) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, constructed in 2015 and approved in 2017 for modification, using one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 10 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and
General Motors LLC Fort Wayne Assembly
Roanoke, Indiana
Permit Reviewer: Aida DeGuzman

oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.

Under 40 CFR 60, Subpart MM, this is considered an affected facility.

Under 40 CFR 63, Subpart IIII, this is considered an affected facility.

(2) Miscellaneous Sealers and Adhesives application, identified as 022, approved in 2015 for construction, using the Primer Surfacer, 010 RTO for VOC control, and exhausting to stacks 07 and 08.

(3) Miscellaneous natural gas-fired equipment, identified as 021, with no controls.

(i) Five (5) ASH Paint Heaters, each with a maximum heat input capacity of 12.5 MMBtu/hr, all venting inside the building.

(ii) Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr, all venting through stack D 21a.

(iii) One (1) Locker Room Heater, located at the paint area, with a maximum heat input capacity of 0.875 MMBtu/hr, venting inside the building.

(iv) One (1) Door Heater, located at the paint area, with a maximum heat input capacity of 0.058 MMBtu/hr, venting inside the building.

(v) Eight (8) Unit Heaters, located at the paint area, each with a maximum heat input capacity of 0.058 MMBtu/hr, all venting inside the building.

(vi) Fourteen (14) ELPO Oven Convection Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.

(vii) Fourteen (14) ELPO Oven Radiant Zones, each with a maximum heat input capacity of 3.0 MMBtu/hr, all venting through stack 020.

(viii) Forty-three (43) Dock Door Heaters, located at the Body Shop and Material Room, thirty-seven (37) with a maximum heat input capacity of 0.40 MMBtu/hr, each, and six (6) with a maximum heat input capacity of 0.60 MMBtu/hr, each, all venting inside the building.

(ix) Twenty-six (26) ASH Heaters, located at the Body Shop and Material Room, twenty (20) with a maximum heat input capacity of 1.805 MMBtu/hr, each, four (4) with a maximum heat input capacity of 1.9 MMBtu/hr, each, and two (2) with a maximum heat input capacity of 2.0 MMBtu/hr, each, all venting inside the building.

(l) Four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.40 MMBtu/hr, and exhausting indoors.

(m) Fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, approved in 2016 for construction, each with a maximum heat input capacity of 0.40 MMBtu/hr, and exhausting indoors.

(n) One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.645 MMBtu/hr, and exhausting indoors. [Under 40 CFR 63, Subpart DDDDD, this boiler is considered an affected facility.]
(o) Forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units, exhausting indoors. The following units utilize steam from boilers ID 004 and 005 and are currently not listed in the permit since they do not emit any air pollutant:

1. Paint Bld ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

2. Paint Bld ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

3. Paint Bld ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.

4. Paint Bld ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.266 MMBtu/hr.

5. Paint Bld ASH #16, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.

6. Paint Bld ASH #17, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.

7. Paint Bld ASH #18, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

8. Paint Bld ASH #19, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

9. Paint Bld ASH #20, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

10. Paint Bld ASH #21, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 6.631 MMBtu/hr.

11. Paint Bld ASH #33, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.

12. Paint Bld ASH #34, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.617 MMBtu/hr.

13. Paint Bld ASH #35, approved for construction in 2016, with a maximum heat input capacity of 4.219 MMBtu/hr.

14. Paint Bld ASH #36, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.989 MMBtu/hr.
(15) Paint Bld ASH #37, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.447 MMBtu/hr.

(16) Bodyshop ACU #1, approved in 2016 for construction, with a maximum heat input capacity of 0.75 MMBtu/hr.

(17) Bodyshop ACU #2, approved in 2016 for construction, with a maximum heat input capacity of 0.35 MMBtu/hr.

(18) Bodyshop ACU #3, approved in 2016 for construction, with a maximum heat input capacity of 0.35 MMBtu/hr.

(19) Mod Obs ASH #1, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(20) Mod Obs ASH #2, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas with a maximum heat input capacity of 24.0 MMBtu/hr.

(21) Mod Obs ASH #3, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(22) Mod Obs ASH #4, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(23) Mod Obs ASH #5, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 24.0 MMBtu/hr.

(24) Mod Obs ASH #6, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(25) Mod Obs ASH #7, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(26) Mod Obs ASH #8, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(27) Mod Obs ASH #9, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(28) Mod Obs ASH #10, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.0 MMBtu/hr.

(29) 206 ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 7.5 MMBtu/hr.
Prime Cleanroom ASH, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.0 MMBtu/hr.

216 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

216 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

216 ASH #3 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

216 ASH #4 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

217 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.0 MMBtu/hr.

217 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.0 MMBtu/hr.

217 ASH #3 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

217 ASH #4 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.5 MMBtu/hr.

241 ASH #1 (SE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.0 MMBtu/hr.

241 ASH #2 (SW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.

243 ASH #1 (NE), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 3.0 MMBtu/hr.

243 ASH #2 (NW), constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 8.0 MMBtu/hr.
General Motors LLC - Stonebridge Road

(a) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting outdoors.

(b) Five (5) natural gas-fired heated make-up air units, identified as MAU-1 through MAU-5, constructed in 2018, with a combined heat input capacity of 13.48 MMBtu per hour, uncontrolled, and exhausting indoors.

(c) Four (4) Diesel fuel storage tanks, identified as T1 through T4, constructed in 2018, each with a maximum capacity of 550 gallons.

(d) Paved Roads

Insignificant Activities

The source also consists of the following insignificant activities:

(a) Grind and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations [326 IAC 6-3-2].

(b) One (1) Body Shop - Grinding and Machining, associated with the T1 Full Size Truck Project, approved in 2015 for construction.

(c) One (1) Pre-Treatment System, associated with the T1 Full Size Truck Project, approved in 2015 for construction.

(d) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), 7 (automatic transmission fluid), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984.

Under 40 CFR 63, Subpart IIII, tanks 1, 2, and the two waste purge solvent tank are considered affected facilities. Tank 7 is not subject to 40 CFR 63, Subpart IIII.

(e) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

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

(g) 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 liquids.

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

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

(k) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.

(l) Noncontact cooling tower systems with natural draft cooling towers not regulated under a NESHAP.

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

(n) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2].

(o) Paved and unpaved roads and parking lots with public access.

(p) 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.

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

(r) On-site fire and emergency response training approved by the department.

(s) Diesel generators not exceeding 1600 horsepower:

(1) One (1) diesel-fired emergency generator, identified as Emergency Generator 2, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG2.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 2 is considered an affected facility.

(2) One (1) diesel-fired emergency generator, identified as Emergency Generator 3, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG3.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 3 is considered an affected facility.

(3) One (1) diesel-fired emergency generator, identified as Emergency Generator 5, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG5.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 5 is considered an affected facility.

(4) One (1) diesel-fired emergency generator, identified as Emergency Generator PHDZL, constructed in 1985, with a maximum output rating of 1515 horsepower, using no controls, and exhausting through Stack EGPHDZL.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator PHDZL is considered an affected facility.
(t) Other emergency equipment as follows: Stationary fire pumps.

(1) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 1, constructed in 1985, with a maximum output rating of 302 horsepower, using no controls, and exhausting through Stack FP1.

Under 40 CFR 63, Subpart ZZZZ, Fire Pump 1 is considered an affected facility.

(2) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and each exhausting through Stack FP2.

Under 40 CFR 60, Subpart IIII, Fire Pump 2 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Fire Pump 2 is considered an affected facility.

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

(v) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(w) Other activities or categories with emissions less than insignificant thresholds:

(1) Fluorocarbon R-134A Storage Tanks (Main Plant);

(2) Sulfuric Acid Storage Tank (Wastewater Treatment Plant);

(3) Grinding Operations (Light Duty Truck Body Shop) [326 IAC 6-3-2];

(4) Pre-phosphate Washers (Light Duty Truck Assembly Line);

(5) Multi-stage Phosphate Systems (Light Duty Truck Assembly Line);

(6) Feather Dusters (Light Duty Truck Assembly Line);

(7) Vehicle washers prior to shipping (Light Duty Truck Assembly Line);

(8) Spot sanding and painting (Light Duty Truck Assembly Line);

(9) Bulk Storage Material Transferring Equipment; i.e. pumps, valves, pipes, flanges, etc. (Light Duty Truck Assembly Line);

(10) Vehicle Fluid Fill Operations; i.e. engine oil, windshield, transmission, engine coolant, power steering fluid, brake fluid, and air conditioning refrigerant (Light Duty Truck Assembly Line);

(11) Engine Sub-assembly Lines (Light Duty Truck Assembly Line);

(12) Radiator Sub-assembly Lines (Light Duty Truck Assembly Line);

(13) Trim Assembly Lines (Light Duty Truck Assembly Line);

(14) Maintenance Shops (Light Duty Truck Assembly Line);

(15) Gasoline/Diesel Tank Assembly Areas (Light Duty Truck Assembly Line);

(16) Mechanical Repair Stalls (Light Duty Truck Assembly Line);
(17) Final Vehicle Inspection (Care Building);

(18) Wastewater Treatment Plant;

(19) Storage Tanks;

(20) Body Washers;

(21) Mig Welding [326 IAC 6-3-2]; and

(22) Diesel Pumps.

(x) Twelve (12) parts washers that use water-based material containing no VOC or HAPs.

(y) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.

Under 40 CFR 60, Subpart IIII, Emergency Generator 9 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 9 is considered an affected facility.

(z) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

Under 40 CFR 60, Subpart JJJJ, Emergency Generator 6 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 6 is considered an affected facility.

(aa) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

Under 40 CFR 60, Subpart JJJJ, Emergency Generator 7 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 7 is considered an affected facility.

(bb) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.

Under 40 CFR 60, Subpart JJJJ, Emergency Generator 8 is considered an affected facility.

Under 40 CFR 63, Subpart ZZZZ, Emergency Generator 8 is considered an affected facility.

(cc) Repair activities: Heat exchanger cleaning and repair.
(dd) Methanol windshield washer fluid storage tank, with a capacity of 10,000 gallons.

Under 40 CFR 63, Subpart EEEE, this storage tank is considered an affected facility.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

County Attainment Status

The source is located in Allen County.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>Better than national standards.</td>
</tr>
<tr>
<td>CO</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>O₃</td>
<td>Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.¹</td>
</tr>
<tr>
<td>PM₂₋₅</td>
<td>Unclassifiable or attainment effective April 15, 2015, for the 2012 annual PM₂₋₅ standard.</td>
</tr>
<tr>
<td>PM₂₋₅</td>
<td>Unclassifiable or attainment effective December 13, 2009, for the 2006 24-hour PM₂₋₅ standard.</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Unclassifiable effective November 15, 1990.</td>
</tr>
<tr>
<td>NO₂</td>
<td>Unclassifiable or attainment effective January 29, 2012, for the 2010 NO₂ standard</td>
</tr>
<tr>
<td>Pb</td>
<td>Unclassifiable or attainment effective December 31, 2011 for the 2008 lead standard.</td>
</tr>
</tbody>
</table>

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOₓ) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOₓ emissions are considered when evaluating the rule applicability relating to ozone. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOₓ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM₂₋₅
Allen County has been classified as attainment for PM₂₋₅. Therefore, direct PM₂₋₅, SO₂, and NOₓ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

Fugitive Emissions

This type of operation is not one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2-1(ff)(1), 326 IAC 2-3-2(g), or 326 IAC 2-7-1(22)(B). However, there is an applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that was in effect on
August 7, 1980 (40 CFR 60, Subpart MM)); therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

### Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at [http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf](http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf)) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources “previously classified as ‘Major’ based solely on greenhouse gas emissions.”

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

<table>
<thead>
<tr>
<th>Unrestricted Potential Emissions (ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM(^1)</td>
</tr>
<tr>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Total PTE of Entire Source</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
</tr>
</tbody>
</table>

\(^1\)Under the Part 70 Permit program (40 CFR 70), PM\(_{10}\) and PM\(_{2.5}\), not particulate matter (PM), are each considered as a "regulated air pollutant."

\(^2\)PM\(_{2.5}\) listed is direct PM\(_{2.5}\).

\(^3\)Single highest source-wide HAP

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM\(_{10}\), PM\(_{2.5}\), NO\(_x\), VOC, and CO are each equal to or greater than one hundred (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(30)) 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(30)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. The source will be issued a Part 70 Operating Permit Renewal.
General Motors LLC Fort Wayne Assembly
Roanoke, Indiana

Permit Reviewer: Aida DeGuzman

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TSD for Part 70 Operating Permit Renewal No.: T 003-41020-00036

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.

<table>
<thead>
<tr>
<th>Process / Emission Unit</th>
<th>PM</th>
<th>PM_{10}</th>
<th>PM_{2.5}</th>
<th>SO_2</th>
<th>NO_X</th>
<th>VOC</th>
<th>CO</th>
<th>Combined HAPs</th>
<th>Worst HAP*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler 004 - Worst Case</td>
<td>3.79</td>
<td>15.18</td>
<td>15.18</td>
<td>1.20</td>
<td>95.11</td>
<td>4.99</td>
<td>79.89</td>
<td>60.90</td>
<td>0.25</td>
</tr>
<tr>
<td>Boiler 005 - Worst Case</td>
<td>1.81</td>
<td>7.23</td>
<td>7.23</td>
<td>0.57</td>
<td>30.11</td>
<td>5.23</td>
<td>79.89</td>
<td>1.79</td>
<td>0.07</td>
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<td>Generators Gen1-Gen4</td>
<td>11.25</td>
<td>11.25</td>
<td>11.25</td>
<td>21.56</td>
<td>51.96</td>
<td>48.49</td>
<td>365.44</td>
<td>36.74</td>
<td>36.34</td>
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<tr>
<td>007 - Heaters</td>
<td>0.40</td>
<td>1.60</td>
<td>1.60</td>
<td>0.13</td>
<td>21.11</td>
<td>1.16</td>
<td>17.73</td>
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<tr>
<td>MOD 1-10 (air supply house burners)</td>
<td>2.00</td>
<td>7.99</td>
<td>7.99</td>
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<td>105.12</td>
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<td>88.30</td>
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<td>006 - Thermal Incineration Natural Gas</td>
<td>0.40</td>
<td>1.59</td>
<td>1.59</td>
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<td>20.86</td>
<td>1.15</td>
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<td>010 - RTO Natural Gas Combustion</td>
<td>0.13</td>
<td>0.51</td>
<td>0.51</td>
<td>0.04</td>
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<td>5.61</td>
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<tr>
<td>008 - Catalytic Oxidizer Natural Gas Combustion</td>
<td>0.64</td>
<td>2.57</td>
<td>2.57</td>
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<td>006 - ELPO Dipping System</td>
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<td>010-Primer Surface System</td>
<td>11.21</td>
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<tr>
<td>008 - Topcoat System</td>
<td>59.01</td>
<td>59.01</td>
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<tr>
<td>Underbody Robotic Sealer Operation</td>
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<tr>
<td>009- Misc. Sealers/ Adhesives/Additives</td>
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<tr>
<td>009- Misc. Solvents</td>
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<td>012 - Final Repair Operation</td>
<td>0.37</td>
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<td>0.37</td>
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<td>013 - Maintenance Paint Operation</td>
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<td>014 - Gasoline Fill Operation</td>
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<td>9.65</td>
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<td>7.87E-02</td>
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<td>ELPO Dipping System - T1 Full-Size Truck Project</td>
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<td>Miscellaneous Sealers and Adhesives - T1 Full-Size Truck Project</td>
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<td>28</td>
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<tr>
<td>ELPO oven, RTO, and heater: nat gas comb -- T1 Full-Size Truck Project</td>
<td>0.57</td>
<td>2.28</td>
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<td>25.20</td>
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</table>
### Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)

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<tr>
<th>Process / Emission Unit</th>
<th>PM</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}</th>
<th>SO\textsubscript{2}</th>
<th>NO\textsubscript{X}</th>
<th>VOC</th>
<th>CO</th>
<th>Combined HAPs</th>
<th>Worst HAP*</th>
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<tbody>
<tr>
<td>2016 Steam Elimination</td>
<td>0.76</td>
<td>3.02</td>
<td>3.02</td>
<td>0.24</td>
<td>39.75</td>
<td>2.19</td>
<td>33.39</td>
<td>0.75</td>
<td>0.03</td>
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<tr>
<td>Natural Gas Combustion</td>
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**Insignificant Activities**

<table>
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<tr>
<th>Activity Description</th>
<th>PM</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}</th>
<th>SO\textsubscript{2}</th>
<th>NO\textsubscript{X}</th>
<th>VOC</th>
<th>CO</th>
<th>Combined HAPs</th>
<th>Worst HAP*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Shop - Grinding &amp; Machining Operations -- T1</td>
<td>4.51</td>
<td>4.51</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>Full-Size Truck Project</td>
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<tr>
<td>Machining and Grinding</td>
<td>4.51</td>
<td>4.51</td>
<td>4.51</td>
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</tr>
<tr>
<td>Storage Tanks (1, 2, 7, 8, 12, 13, 14, 15, &amp; two waste purge solvent tanks)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.11</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Space Heaters, Process Heaters, Boilers less than 10 MMBtu/hr.</td>
<td>0.08</td>
<td>0.32</td>
<td>0.32</td>
<td>0.03</td>
<td>4.17</td>
<td>0.23</td>
<td>3.50</td>
<td>0.08</td>
<td>0.003</td>
</tr>
<tr>
<td>Gasoline Fuel Transfer &amp; Dispensing Operation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.51</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Emergency Diesel Generators (2, 3, 5, &amp; PHDZL)</td>
<td>0.88</td>
<td>0.88</td>
<td>0.88</td>
<td>0.82</td>
<td>12.40</td>
<td>1.01</td>
<td>2.67</td>
<td>3.85E-03</td>
<td>0.001</td>
</tr>
<tr>
<td>Emergency Diesel Fire Pumps (1 and 2)</td>
<td>0.44</td>
<td>0.44</td>
<td>0.44</td>
<td>0.41</td>
<td>6.20</td>
<td>0.50</td>
<td>1.34</td>
<td>1.93E-03</td>
<td>0.001</td>
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<td>Vehicle Fluid Fill Operations</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.12</td>
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<tr>
<td>Other Miscellaneous Insignificant Activities</td>
<td>1.90</td>
<td>1.90</td>
<td>1.90</td>
<td>0.10</td>
<td>-</td>
<td>3.10</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Emergency Generators EG6 - EG9</td>
<td>0.12</td>
<td>0.08</td>
<td>0.08</td>
<td>0.70</td>
<td>7.63</td>
<td>0.22</td>
<td>1.22</td>
<td>0.06</td>
<td>0.045</td>
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<tr>
<td>Stonebridge Facility-Heaters, AMU 1-5</td>
<td>0.11</td>
<td>0.45</td>
<td>0.45</td>
<td>0.04</td>
<td>5.90</td>
<td>0.32</td>
<td>4.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stonebridge Facility- Tanks</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.001</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Stonebridge-Fugitive (Paved Rds)</td>
<td>8.73</td>
<td>1.75</td>
<td>0.43</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total PTE for Entire Source</strong></td>
<td>117.1</td>
<td>141.8</td>
<td>140.5</td>
<td>27.3</td>
<td>482.6</td>
<td>3,337.31</td>
<td>760.04</td>
<td>104.6</td>
<td>36.97 (H\textsubscript{2}CO)</td>
</tr>
<tr>
<td><strong>PSD Major Source Thresholds</strong></td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*Single highest source-wide HAP = formaldehyde (H\textsubscript{2}CO).

Appendix A of this TSD reflects the detailed potential to emit of the entire source after issuance.

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because at least one PSD regulated pollutant, NO\textsubscript{x}, VOC, and CO, is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This source is a major source of HAP, as defined in 40 CFR 63.2, because HAP emissions are equal to or greater than ten (10) tons per year for a single HAP and equal to or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).
Federal Rule Applicability

Federal rule applicability for this source has been reviewed as follows:

New Source Performance Standards (NSPS):

(a) The requirements of the New Source Performance Standard for Fossil-Fuel-Fired Steam Generators, 40 CFR 60, Subpart D and 326 IAC 12, are not included in the permit for Boilers 004 or 005, because this rule applies to boilers with heat input capacity of 73 megawatts (MW) (250 MMBtu/hour). Boilers 004 or 005, each has heat input capacity of 228 MMBtu/hour which is less than 250 MMBtu/hour.

(b) Boilers 004 or 005 are subject to the New Source Performance Standards for Fossil-Fuel-Fired Steam Generators, 40 CFR 60, Subpart Db and 326 IAC 12, because each boiler has heat input capacity of 228 MMBtu/hour, which is greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)). The units subject to this rule includes the following:

(1) One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01.

(2) One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01.

These units are subject to the following portions of 40 CFR 60, Subpart Db.

(1) 40 CFR 60.40b(a),(f),(g),(j);
(2) 40 CFR 60.41b;
(3) 40 CFR 60.42b(k)(2);
(4) 40 CFR 60.44b(a)(1),(h), (i);
(5) 40 CFR 60.46b(a),(c), (e);
(6) 40 CFR 60.48b(b)(1) or (b)(2), (c), (d), (f);
(7) 40 CFR 60.49b(a),(b), (d), (g), (o), (v), (w)

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the boilers except as otherwise specified in 40 CFR 60, Subpart Db.

(c) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60, Subpart Kb and 326 IAC 12, are not included in the permit for the storage tanks for engine oil, windshield, automatic transmission fluid, engine coolant, power steering fluid, brake fluid, and air conditioning refrigerant, solvent/thinner, and two (2) waste purge solvent tanks, lubricating oils, hydraulic oils, machining oils, and machining fluids because each storage tank does not have the capacity of 19,812 gallons (75m³).

Storage Tanks Nos. 8 and 9
The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60, Subpart Kb and 326 IAC 12, are not included in the permit for the Storage Tanks Nos. 8 and 9 because this rule does not apply to tanks located at Gasoline Service Station, pursuant to 40 CFR 60.110b(d)(6).

Pursuant to the definition in 40 CFR 60.111b “Gasoline service station” means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.
(d) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978, 40 CFR 60.110, Subpart K, are not included in the permit for any of the storage tanks at this source because they were all installed after May 19, 1978, the applicability date of this rule.

(e) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60.110a, Subpart Ka, are still not included in the permit for any of the storage tanks at this source because they were all installed after July 23, 1984, the applicability date of this rule.

(f) The ELPO Dipping System (prime coat operation), the Primer Surfacer System (guide coat operation), and the Topcoat System (topcoat operation) are subject to the New Source Performance Standards for Automobile and Light Duty Truck Surface Coating Operations, 40 CFR 60.390, Subpart MM and 326 IAC 12, because these coating systems were constructed after October 5, 1979 and they perform the operations that are specifically subject to the rule. The units subject to this rule includes the following:

1. One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02.

2. One (1) Primer Surfacer System, identified as 010, constructed in March 1994, approved in 2010 for modification, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above.

3. One (1) Topcoat System, identified as 008, constructed in August 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using water wash as PM control, and exhausting to stack 04.

4. The following equipment approved in 2015 for construction to accommodate the T1 Full Size Truck Project:

   A) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, constructed in 2015 and approved in 2017 for modification, using one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 10 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.

These units are subject to the following portions of 40 CFR 60, Subpart MM:

1. 40 CFR 60.390;
2. 40 CFR 60.391;
3. 40 CFR 60.392(a)(1), (b), (c);
4. 40 CFR 60.393;
5. 40 CFR 60.394;
6. 40 CFR 60.395;
7. 40 CFR 60.396;
The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the coating booths except as otherwise specified in 40 CFR 60, Subpart MM.

The seven (7) generators are subject to the New Source Performance Standards for Spark Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart JJJJ and 326 IAC 12, because they are spark-type ignition internal combustion engines (ICE) that were constructed after June 12, 2006. The units subject to this rule includes the following:

(1) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

(2) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

(3) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

(4) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.

(5) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

(6) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

(7) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

(8) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.

These units are subject to the following portions of 40 CFR 60, Subpart JJJJ:

(1) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

40 CFR 60.4230(a)(4)(i), (6)
40 CFR 60.4233(e)
40 CFR 60.4234
One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

(3) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

(4) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the generators except as otherwise specified in 40 CFR 60, Subpart JJJJ.

The generators and fire pumps are subject to the New Standards of Performance (NSPS) for Compression Ignition Internal Combustion Engines, of 40 CFR Part 60, Subpart IIII, because these generators are stationary compression ignition (CI) internal combustion engines (ICE) that were constructed after July 11, 2005 and the fire pumps were manufactured as certified National Fire Protection Association (NFPA) after July 1, 2006.
The units subject to this rule includes the following

Other emergency equipment as follows: Stationary fire pumps.

(1) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and exhausting through Stack FP2.

(2) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.

(3) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting indoors.

These units are subject to the following portions of 40 CFR 60, Subpart III:

(1) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.

40 CFR 60.4200(a)(2)(i)
40 CFR 60.4205(b)
40 CFR 60.4206
40 CFR 60.4207(b)
40 CFR 60.4209(a)
40 CFR 60.4211(a), (c), (f)
40 CFR 60.4214
40 CFR 60.4219
Table 5 (applicable portions) to 40 CFR 60, Subpart III
Table 8 (applicable portions) to 40 CFR 60, Subpart III

(2) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and exhausting through Stack FP2.

40 CFR 60.4200(a)(2)(ii), (a)(4)
40 CFR 60.4205(c)
40 CFR 60.4206
40 CFR 60.4207(b)
40 CFR 60.4209(a)
40 CFR 60.4211(a), (c), (f)
40 CFR 60.4214(b)
40 CFR 60.4219
Table 4 (applicable portions) to 40 CFR 60, Subpart III
Table 5 (applicable portions) to 40 CFR 60, Subpart III
Table 8 (applicable portions) to 40 CFR 60, Subpart III

(3) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting outdoors.

40 CFR 60.4200(a)(2)(ii), (a)(4)
40 CFR 60.4205(b)
40 CFR 60.4206
40 CFR 60.4207(b)
40 CFR 60.4209(a)
40 CFR 60.4211(a), (c), (f)
40 CFR 60.4214(b)
40 CFR 60.4218
40 CFR 60.4219
Table 5 (applicable portions) to 40 CFR 60, Subpart III
Table 8 (applicable portions) to 40 CFR 60, Subpart III

(i) There are no other New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included in the permit

National Emission Standards for Hazardous Air Pollutants (NESHAP):

(a) The source is subject to the requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Automobiles and Light-Duty Trucks, 40 CFR 63, Subpart III and 326 IAC 20-85, because it employs surface coating of automobiles and light-duty trucks and is a major source of hazardous air pollutants (HAPs). Pursuant to 40 CFR 63.3082, the affected source that is subject to the requirements of 40 CFR 63, Subpart III consists of the collection of all coating operations, as defined in 40 CFR 63.3176; all storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed; all manual and automated equipment and containers for conveying coatings, thinners, and cleaning materials; and all storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation. The units subject to this rule include the following:

(1) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;

(2) One (1) Underbody Robotic Sealer Operation, identified as Stone Guard Sealer, approved in 2012 for operation, using no controls, and exhausting indoors;

(3) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, approved in 2010 for modification, using a natural gas fired regenerative thermal oxidizer with a maximum heat input capacity of 16 MMBtu/hr as VOC control, and water wash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;

(4) One (1) Topcoat System, identified as 008, constructed in August 1985, approved in 2015 for modification, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum heat input capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum heat input capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using water wash as PM control, and exhausting to stack 04;

(5) Miscellaneous sealers/adhesives/additives/solvents, identified as part of 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;

(6) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;

(7) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10;

(8) The following equipment approved in 2015 for construction to accommodate the T1 Full
Size Truck Project:

(9) One (1) Electrodeposition (ELPO Dipping) System, identified as 20, constructed in 2015 and approved in 2017 for modification, using one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 10 million British thermal units per hour (MMBtu/hr) as VOC control for the tank and oven, and exhausting through stack 020. The ELPO oven has 14 zones with a combined maximum heat input capacity of 79.5 MMBtu/hr.

Insignificant Activities:

(10) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984.

These units are subject to the following portions of 40 CFR 63, Subpart IIII:

(1) 40 CFR 63.3080;
(2) 40 CFR 63.3081;
(3) 40 CFR 63.3082(a)-(d), (g);
(4) 40 CFR 63.3083(b), (d);
(5) 40 CFR 63.3091(a)-(f);
(6) 40 CFR 63.3092;
(7) 40 CFR 63.3093;
(8) 40 CFR 63.3094;
(9) 40 CFR 63.3100;
(10) 40 CFR 63.3101;
(11) 40 CFR 63.3110;
(12) 40 CFR 63.3120;
(13) 40 CFR 63.3130;
(14) 40 CFR 63.3131;
(15) 40 CFR 63.3150;
(16) 40 CFR 63.3151;
(17) 40 CFR 63.3152;
(18) 40 CFR 63.3160(b), (c);
(19) 40 CFR 63.3161;
(20) 40 CFR 63.3163;
(21) 40 CFR 63.3164;
(22) 40 CFR 63.3165;
(23) 40 CFR 63.3166;
(24) 40 CFR 63.3167(a), (b), (f);
(25) 40 CFR 63.3168(a), (b), (c), (g);
(26) 40 CFR 63.3169;
(27) 40 CFR 63.3170(b);
(28) 40 CFR 63.3171;
(29) 40 CFR 63.3173;
(30) 40 CFR 63.3174;
(31) 40 CFR 63.3175;
(32) 40 CFR 63.3176;
(33) Table 1 to 40 CFR 63, Subpart IIII;
(34) Table 2 to 40 CFR 63, Subpart IIII;
(35) Table 3 to 40 CFR 63, Subpart IIII;
(36) Appendix A to Subpart IIII of Part 63.

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63, Subpart MMMM, are not included in this permit for this source because the source is complying with 40 CFR 63, Subpart IIII to comply with 40 CFR 63, Subpart MMMM.
Pursuant to 40 CFR 63.3881, facilities that meet the applicability criteria in 40 CFR 63.3081(b) for the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR 63, Subpart IIII) can choose to comply with the requirements of Subpart IIII in lieu of complying with 40 CFR 63, Subpart MMMM.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products, 40 CFR 63, Subpart PPPP, are not included in this permit because this source does not engage in the coating of plastic parts.

(d) The sixteen (16) generators and two (2) fire pumps are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ and 326 IAC 20-82, because these generators are considered existing stationary reciprocating internal combustion engines that are located at a major source. The generators subject to this rule includes the following:

1. Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.
2. Diesel generators not exceeding 1600 horsepower.
   (A) One (1) diesel-fired emergency generator, identified as Emergency Generator 2, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG2.
   (B) One (1) diesel-fired emergency generator, identified as Emergency Generator 3, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG3.
   (C) One (1) diesel-fired emergency generator, identified as Emergency Generator 5, constructed in 1985, with a maximum output rating of 415 horsepower, using no controls, and exhausting through Stack EG5.
   (D) One (1) diesel-fired emergency generator, identified as Emergency Generator PHDZL, constructed in 1985, with a maximum output rating of 1515 horsepower, using no controls, and exhausting through Stack EGPHDZL.
3. Other emergency equipment as follows: Stationary fire pumps.
   (A) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 1, constructed in 1985, with a maximum output rating of 302 horsepower, using no controls, and exhausting through Stack FP1.
   (B) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and exhausting through Stack FP2.
4. One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.
5. One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.
6. One (1) natural gas-fired emergency generator, identified as Emergency Generator 7,
constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

(7) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.

(8) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting outdoors.

These units are subject to the following portions of 40 CFR 63, Subpart ZZZZ:

(1) Four (4) identical landfill gas-fired generators, identified as Gen 1 through Gen 4, approved in 2013 for construction, each with a maximum output rating of 2,242 horsepower, using no controls, and each exhausting through Stack S01.

40 CFR 63.6580
40 CFR 63.6585 (a), (b)
40 CFR 63.6590 (a)(2)(i), (b)(2)
40 CFR 63.6595 (a)(3)
40 CFR 63.6600 (c)
40 CFR 63.6605
40 CFR 63.6625 (c)
40 CFR 63.6640 (e)
40 CFR 63.6645 (c)
40 CFR 63.6650 (g)
40 CFR 63.6655 (c)
40 CFR 63.6660
40 CFR 63.6665
40 CFR 63.6670
40 CFR 63.6675
Table 7 (item 2) to 40 CFR 63, Subpart ZZZZ
Table 8 to 40 CFR 63, Subpart ZZZZ

(2) Three (3) diesel-fired emergency generators, identified as Emergency Generator 2, Emergency Generator 3, and Emergency Generator 5, each constructed in 1985, each with a maximum output rating of 415 horsepower, using no controls, and each exhausting through Stacks EG2, EG3, and EG5, respectively.

One (1) diesel-fired emergency generator, identified as Emergency Generator PHDZL, constructed in 1985, with a maximum output rating of 1515 horsepower, using no controls, and exhausting through Stack EGPHDZL.

One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 1, constructed in 1985, with a maximum output rating of 302 horsepower, using no controls, and exhausting through Stack FP1.
40 CFR 63.6655 (e)(2), (f)(1)
40 CFR 63.6660
Table 2C to 40 CFR 63, Subpart ZZZZ

(3) One (1) diesel-fired emergency generator, identified as Emergency Generator 9, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 689 horsepower, EPA Certified engine with 2.53 L/cylinder displacement, using no controls, and exhausting through Stack EG9.

40 CFR 63.6580
40 CFR 63.6585(a), (b)
40 CFR 63.6590(a)(2)(i)
40 CFR 63.6590(b)(1)(i)
40 CFR 63.6645(f)

(4) One (1) diesel-fired stationary fire pump engine, identified as Fire Pump 2, constructed in 2014, with a maximum output rating of 121 horsepower, using no controls, and exhausting through Stack FP2.

40 CFR 63.6580
40 CFR 63.6585(a), (b)
40 CFR 63.6590(a)(2)(ii)
40 CFR 63.6590(c)(7)

(5) One (1) natural gas-fired emergency generator, identified as Emergency Generator 6, constructed in 2016, approved in 2018 for construction, with a maximum output rating of 194 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG6.

40 CFR 63.6580
40 CFR 63.6585(a), (b)
(40 CFR 63.6590(c)(6)

(6) One (1) natural gas-fired emergency generator, identified as Emergency Generator 7, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG7.

40 CFR 63.6580
40 CFR 63.6585(a), (b)
40 CFR 63.6590(c)(6)

(7) One (1) natural gas-fired emergency generator, identified as Emergency Generator 8, constructed in 2017, approved in 2018 for construction, with a maximum output rating of 131.6 horsepower, EPA Certified engine with 0.68 L/cylinder displacement, using no controls, and exhausting through Stack EG8.

40 CFR 63.6580
40 CFR 63.6585(a), (b)
40 CFR 63.6590(c)(6)

(8) Four (4) diesel-fired emergency generators, identified as LOC Emergency Generators 1-4, each with a maximum output rating of 909 HP, constructed in 2018 with no controls, exhausting outdoors.
(c) The boilers are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers, 40 CFR 63, Subpart DDDDD, which is incorporated by reference as 326 IAC 20-95, because these boilers meet the definition of industrial boilers in 40 CFR 63.7575 and they are located at, or are part of, a major source of HAP. The boilers subject to this rule include the following:

1. One (1) natural gas/landfill gas fired boiler, identified as 004, constructed in 1992 and modified in 2011 to combust landfill gas, with a maximum heat input capacity of 228 MMBtu/hr for natural gas and landfill gas, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

2. One (1) natural gas-fired boiler, identified as 005, constructed in 1993, with a maximum heat input capacity of 228 MMBtu/hr, using low NOx burners and flue gas recirculation as control, and exhausting to stack 01;

3. Three (3) Hot Water Generators, located at the paint area, each with a maximum heat input capacity of 8.0 MMBtu/hr.

4. One (1) natural gas-fired boiler, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.

These units are subject to the following portions of 40 CFR 63, Subpart DDDDD:

40 CFR 63.7480; 40 CFR 63.7485; 40 CFR 63.7490; 40 CFR 63.7495; 40 CFR 63.7500; 40 CFR 63.7505; 40 CFR 63.7510; 40 CFR 63.7515; 40 CFR 63.7520; 40 CFR 63.7525; 40 CFR 63.7530; 40 CFR 63.7535; 40 CFR 63.7540; 40 CFR 63.7541; 40 CFR 63.7545; 40 CFR 63.7550; 40 CFR 63.7555; 40 CFR 63.7560; 40 CFR 63.7565; 40 CFR 63.7570; 40 CFR 63 Table 2 to NESHAP Subpart DDDDD; 40 CFR 63 Table 3 to NESHAP Subpart DDDDD; 40 CFR 63 Table 4 to NESHAP Subpart DDDDD; 40 CFR 63 Table 5 to NESHAP Subpart DDDDD; 40 CFR 63 Table 6 to NESHAP Subpart DDDDD; 40 CFR 63 Table 8 to NESHAP Subpart DDDDD;
(i) The storage tanks are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline), Subpart EEEE, because these tanks are storing organic liquid are not included in the permit for the non-gasoline storage tanks. The units subject to this rule includes the following:

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.
3. Methanol windshield washer fluid storage tank, with a capacity of 10,000 gallons.

These units are subject to the following portions of 40 CFR 63, Subpart EEEE:

- 40 CFR 63.2330
- 40 CFR 63.2334(a)
- 40 CFR 63.2338(a)(1), (a)(3)(i), (d)
- 40 CFR 63.2342(a)(1)(i)
- 40 CFR 63.2343, (b)(3)
- 40 CFR 63.2402
- 40 CFR 63.2406
- Table 2 to Subpart EEEE of Part 63

(j) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Part 63, 326 IAC 14, and 326 IAC 20) included in the permit.

**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 regulated pollutant involved;
2. is subject to an emission limitation or standard for that pollutant (or a surrogate thereof); and
3. uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

(b) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.

The following table is used to identify the applicability of CAM to each emission unit and each emission limitation or standard for a specified pollutant based on the criteria specified under 40 CFR 64.2:
<table>
<thead>
<tr>
<th>Emission Unit/Pollutant</th>
<th>Control Device</th>
<th>Applicable Emission Limitation</th>
<th>Uncontrolled PTE (tons/year)</th>
<th>Controlled PTE (tons/year)</th>
<th>CAM Applicable (Y/N)</th>
<th>Large Unit (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELPO Dipping System (006) – VOC</td>
<td>RTO</td>
<td>326 IAC 2-2</td>
<td>356.4</td>
<td>153.3</td>
<td>N(^1)</td>
<td>Y</td>
</tr>
<tr>
<td>Primer Surfacer System (010) – VOC</td>
<td>RTO</td>
<td>326 IAC 2-2</td>
<td>713.1</td>
<td>67.7</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Primer Surfacer System (010) – PM</td>
<td>Waterwash</td>
<td>326 IAC 6-3-2</td>
<td>224.1</td>
<td>11.21</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Topcoat System (008) – VOC</td>
<td>Catalytic Oxidizer</td>
<td>326 IAC 2-2</td>
<td>4,198</td>
<td>1,180</td>
<td>N(^1)</td>
<td>Y</td>
</tr>
<tr>
<td>Topcoat System (008) – PM</td>
<td>Waterwash</td>
<td>326 IAC 6-3-2</td>
<td>1,180.3</td>
<td>59.01</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Final Repair Operation (012) – PM</td>
<td>Dry Filters</td>
<td>326 IAC 6-3-2</td>
<td>7.45</td>
<td>0.37</td>
<td>N</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Uncontrolled PTE (tpy) and controlled PTE (tpy) are evaluated against the Major Source Threshold for each pollutant. Major Source Threshold for criteria pollutants (PM10, PM2.5, SO2, NOX, VOC and CO) is 100 tpy, for a single HAP ten (10) tpy, and for total HAPs twenty-five (25) tpy.

Under the Part 70 Permit program (40 CFR 70), PM is not a regulated pollutant.

\[PM^*\] For limitations under 326 IAC 6-3-2, 326 IAC 6.5, and 326 IAC 6.8, IDEM OAQ uses PM as a surrogate for the regulated air pollutant PM10. Therefore, uncontrolled PTE and controlled PTE reflect the emissions of the regulated air pollutant PM10.

\[N^1\] The control device is not required to comply with 326 IAC 2-2. Therefore, the requirements of 40 CFR Part 64, CAM, are not applicable.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are applicable to Primer Surfacer System (010), for VOC. A CAM plan was submitted as part of a previous permit application and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are applicable to Primer Surfacer System (010), and Topcoat System (008) for PM10. A CAM plan was submitted as part of a previous permit application and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

### State Rule Applicability - Entire Source

State rule applicability for this source has been reviewed as follows:

**326 IAC 1-6-3 (Preventive Maintenance Plan)**

The source is subject to 326 IAC 1-6-3.

**326 IAC 1-5-2 (Emergency Reduction Plans)**

The source is subject to 326 IAC 1-5-2.

**326 IAC 2-2 (PSD)**

PSD applicability is discussed under the Potential to Emit After Issuance section of this document.

**Permit PSD (02) No. 1575, issued on November 30, 1984**

The source, which manufactures automobile and light duty-trucks is an existing PSD major source and it is not one of the twenty-eight (28) listed source categories. The source was initially
constructed in 1985 and went through PSD review under Permit PSD (02) No. 1575, issued on November 30, 1984. This PSD permit required the following PSD BACT:

**Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC)**

Pursuant to PSD (02) 1575; issued on November 30, 1984 and 326 IAC 2-2-3 (Control Technology Review; Requirements), the Permittee shall comply with the following VOC BACT limits:

The total VOC usage from ELPO Dipping System (006), Underbody Robotic Sealer, identified as Stone Guard Sealer, and Miscellaneous Sealers/Adhesives/Additives/Solvents (009), combined with the potential to emit VOC from Primer Surfacer System (010), Topcoat System (008), Final Repair Operation (012), and Maintenance Paint Operation (013); shall be limited such that total source's VOC potential to emit does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

Compliance with condition shall satisfy the requirements of 326 IAC 2-2, PSD rules.

This Permit PSD (02) No. 1575, issued on November 30, 1984 was as well the cited authority in the following condition for Boilers, identified as 004 and 005; including PSD CP (003) No. 2000 issued on September 9, 1991; and CP No. 003-2524, issued on October 13, 1992.

PSD CP (003) No. 2000 issued on September 9, 1991; which permitted Boiler 004 went through PSD for NOx and limited the fuel oil usage and its sulfur content to avoid PSD review for SO2 emissions. These limits were required in this permit until the Operating Permit Renewal No. 003-33417-00036, was issued on November 13, 2014. In this said renewal the source has removed the ability to combust fuel oil from Boilers 004. Hence, the fuel oil usage limit and sulfur content limit were removed from the operating permit.

CP No. 003-2524, issued on October 13, 1992, which permitted Boiler 005 went through netting exercise for SO2. Conditions limiting the fuel oil usage and sulfur content of the fuel oil for Boiler 005 were required in this permit, CP No. 003-2524 to make the netting exercise enforceable. These netting conditions, which limited the fuel oil and sulfur content were required in this permit until the Operating Permit Renewal No. 003-33417-00036 was issued on November 13, 2014. In this said renewal the source has removed the ability of Boiler 005 to combust fuel oil. Hence, the fuel oil usage limit and sulfur content limit to net out of PSD review were removed from the operating permit. However, the natural gas fuel should have been limited instead. In this permitting action T003-41020-00036, the natural gas fuel usage have been re-calculated to establish the natural gas usage limit to avoid PSD review for NOx that was based on netting, this NOx limit will be revised as follows. SO2 is naturally below the SER when burning natural gas:

<table>
<thead>
<tr>
<th>NOx Unlimited PTE of Boiler 005</th>
<th>NOx Netting credit at the time CP003-2524 was issued (tons/year)</th>
<th>NOx Net Emissions (tons/year)</th>
<th>Natural Gas Usage Limit (MMCF/yr)</th>
<th>NOx Emissions Limit (lb/MMCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>95.1</td>
<td>65</td>
<td>30.1</td>
<td>1,902.2</td>
<td>100</td>
</tr>
</tbody>
</table>

See page 29 of 33 of TSD Appendix A for detailed calculation.

**Existing Condition D.1.1- Prevention of Significant Deterioration (PSD) - Best Available Control Technology [326 IAC 2-2]**

Pursuant to Permit PSD (02) No. 1575, issued on November 30, 1984; CP (003) No. 2000, issued on September 9, 1991; CP No. 003-2524, issued on October 13, 1992; and 326 IAC 2-2 PSD BACT:
(a) For Boiler 004:
NOx emissions shall not exceed 0.098 lb/MMBtu input from the combustion of natural gas. Flue gas recirculation and low NOx burners are considered PSD BACT for this emission unit.

(b) For Boiler 005:
NOx emissions shall not exceed 0.098 lb/MMBtu from the combustion of natural gas.

Revised Condition D.1.1 - Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Nitrogen Oxides (NOx)

Pursuant to Permit PSD (02) No. 1575, issued on November 30, 1984; PSD CP (003) No. 2000, issued on September 9, 1991; and 326 IAC 2-2-3 (Control Technology Review; Requirements), the Permittee shall comply with the following PSD BACT:

(a) The NOx emissions from Boiler 004 shall not exceed 0.098 pound/MMBtu input from the combustion of natural gas.

(b) The use of Flue gas recirculation and low NOx burners are considered PSD BACT for this emission unit.

Compliance with this limitation, shall satisfy the requirements of 326 IAC 2-2, PSD.

NOx PSD Credit Limitations
In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:

(a) The total natural gas usage to Boiler 005 shall not exceed 1,902.2 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The NOx emissions from Boiler 005 shall not exceed 100 pounds per million cubic feet (lb/MMCF) of natural gas.

Compliance with these limits is equivalent to 95.1 tons of NOx emissions per year, with a reduction of 65 tons per year of NOx from the removal of two (2) coal-fired boilers Nos. 1 and 2, shall limit the net emission increase from this boiler to less than the PSD significant emission rate (SER) of 40 tons of NOx per year and renders the requirements of 326 IAC 2-2 Prevention of Significant Deterioration not applicable to the 1992 modification permitted under CP003-2524.

(Note: The 1992 modification, CP003-2524, issued on October 13, 1992 only allowed for the construction of Boiler 005)

SSM No. 003-12830-00036, issued March 5, 2001
This source modification allowed for the construction of Twenty (20) natural gas fired burners, known as MOD 1 through MOD 10. The total NOx emissions from this modification was limited below the PSD SER of 40 tons per year. The limits are the following:

PSD Minor Limits
In order to render the requirements of 326 IAC 2-2 not applicable, and pursuant to SSM No. 003-12830-00036, issued March 5, 2001, the Permittee shall comply with the following:

(a) NOx emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed 100 pounds of NOx per million standard cubic feet of natural gas.

(b) The natural gas usage for the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed six hundred ten (610) million cubic feet of natural gas per twelve (12)
consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit the NOx emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) to less than forty (40) tons per year and render the requirements of 326 IAC 2-2, PSD not applicable to this 2001 modification.

PSD/SSM No. 003-33305-00036, issued on December 6, 2013
This PSD permit allowed for the construction of four (4) landfill gas-fired generators to generate 6.4 MW of electricity to power the assembly plant. These generators went through PSD review requirements for VOC, NOx, CO and PM2.5. The PSD BACT established for these generators is the following:

Pursuant to PSD/Significant Permit Modification No. 003-33317-00038, issued December 6, 2013, and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)), the Best Available Control Technology (BACT) for the four (4) landfill gas-fired generators, identified as Gen 1 through Gen 4, shall be as follows:

(a) The VOC emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.56 g/bhp-hr VOC.

(b) The NOx emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.6 g/bhp-hr NOx.

(c) The CO emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 4.22 g/bhp-hr CO.

(d) The PM2.5 emissions from each of the Caterpillar G3520C generators, identified as Gen 1 through Gen 4, shall not exceed 0.13 g/bhp-hr PM2.5 (0.044 lb/MMBtu).

(e) The landfill gas-fired generators, Gen 1 through Gen 4, shall each be equipped with lean-burn control technology with air-to-fuel ratio adjustment control and ignition timing to ensure good combustion practices, and s

Compliance with these limitations, shall satisfy the requirements of 326 IAC 2-2, PSD.

SSM No. 003-34856-00036, issued on February 3, 2015
This permit allowed for the construction of a new ELPO, identified as 020, Miscellaneous Sealers and Adhesive application, identified as 022, various heaters and modification of the existing Topcoat, identified as 008 and Miscellaneous Solvents and Purge, identified as 009 to accommodate the T1 Full Size Truck Project. This project went through Hybrid Test and netting exercise for PM2.5, and to avoid triggering the netting exercise for VOC, the source requested to limit VOC. The limits are the following:

PM2.5 PSD Credit Limitations (D.7.1)
In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:

(a) The combined natural gas usage at the one hundred fifty (150) combustion units associated with the T1 Full Size Truck Project permitted in SSM 003-34856-00036 shall be limited to 600 million cubic feet (MMCF) per twelve consecutive month period, with compliance determined at the end of each month.

(b) Boiler, identified as 003, shall be shut down permanently and removed from operation prior to the operation of any of the emission units associated with the T1 Full Size Truck Project permitted in SSM 003-34856-00036.
(c) PM2.5 emissions from overspray at the Primer Surfacer, identified as 010, shall not exceed 0.07 pound per hour.

Compliance with this condition shall render the requirements of 326 IAC 2-2, PSD, not applicable to this 2015 modification permitted under SSM No. 003-34856-00036.

PSD Minor Limits (D.7.2)
In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:

(a) The VOC emissions from the Miscellaneous Sealers and Adhesives operation, identified as 022, controlled by the Primer Surfacer Coating System, identified as 010 RTO shall not exceed 28 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the ELPO, identified as 020, controlled by one RTO, exhausting to Stack 020, shall not exceed 10 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with the above limits, combined with the potential to emit VOC from other emission units in the 2015 modification shall limit the VOC emissions to less than the significant emission rate (SER) of 40 tons per year and renders the requirements of 326 IAC 2-2, PSD, not applicable to this 2015 modification.

SSM No. 003-37324-00036, issued on September 26 2016
This permit allowed for the construction of various process heaters, space heaters and boilers.
This 2016 modification was limited to less than the PSD SER of 40 tons per year for NOx. The following is the PSD minor limits:

PSD Minor Limits (D.8.1)
In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:

(a) The total natural gas fuel usage for the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, one (1) natural gas-fired boiler, identified as BU-2, and the forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units shall not exceed seven hundred ninety-five (795) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The NOx emissions shall not exceed 100 pounds per million cubic feet of natural gas.

Compliance with this limit shall limit the NOx emissions from the four (4) natural gas-fired dock door heaters, identified as DUH-56, DUH-88, DUH-40, and DUH-57, the fourteen (14) natural gas-fired space heaters, identified as UH-1 through UH-14, one (1) natural gas-fired boilers, identified as BU-2, and the forty-two (42) natural gas-fired Paint Shop & Body Shop Building Air Handling Units to less than forty (40) tons per year and render 326 IAC 2-2 (PSD) not applicable to the 2016 modification permitted under SSM No. 003-37324-00036.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The provisions of 326 IAC 2-4.1 apply to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.41, after July 27, 1997, unless the major source has been specifically regulated under or exempted from regulation under a NESHAP that was issued pursuant to Section 112(d), 112(h), or 112(j) of the Clean Air Act (CAA) and incorporated under 40 CFR 63. On and after June 29, 1998, 326 IAC 2-4.1 is intended to implement the requirements of Section 112(g)(2)(B) of the Clean Air Act (CAA).
(a) Boiler 004, Boiler 005, ELPO Dipping System (006), Primer Surfacer System (010), Topcoat System (008), Miscellaneous sealers, adhesives, additives, solvents (009), Final Repair Operation (012), Maintenance Paint Operation (013), and the Gasoline Fill Operation (014) -

All these units were constructed prior to July 27, 1997, the applicability date of this rule. Therefore, they are not subject to the requirements of 326 IAC 2-4.1

(b) The four (4) landfill gas-fired generators, identified as Gen 1 through Gen 4 –

These generators are not subject to 326 IAC 2-4.1 because they are specifically regulated by a standard issued pursuant to Section 112(d) of the CAA. The generators are subject to 40 CFR 63, Subpart ZZZZ.

(c) T1 Full Size Truck Project – ELPO, identified as 20, Miscellaneous Sealers and Adhesives application, identified as 022

The operation of the T1 Full Size Truck Project consisting of the ELPO, the Miscellaneous Sealer and Adhesive or the entire modification relating to the T1 Full Size Truck Project will not emit greater than ten (10) tons per year for a single HAP or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 will not apply. In addition, all units involved in this modification are subject to NESHAP, Subpart III, which was issued pursuant to Section 112(d) of the CAA. Pursuant to 326 IAC 2-4.1-1(b)(2), the requirements of 326 IAC 2-4.1-1 do not apply to a major source specifically regulated under this section of the CAA.

(d) The twenty (20) natural gas-fired air supply house burners, constructed in 2001 identified as MOD 1 through MOD 10 do not emit greater than ten (10) tons per year for a single HAP or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1 do not apply to MODs 1 through 10.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC is greater than 250 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(1), annual reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 and every year thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-7-6(5) (Annual Compliance Certification)

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certifications that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

326 IAC 5-1 (Opacity Limitations)

This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1)

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source is not subject to the requirements of 326 IAC 6-5, because the source is not a source of fugitive emissions that emits at least 25 tons per year of fugitive PM.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Allen County) is not subject to the requirements of 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-1(d), Boiler 004 and Boiler 005 are subject to the particulate emissions limitation under 326 IAC 6-2-4 since both boilers were constructed after September 21, 1983. Boiler 004 was constructed in 1992 and Boiler 005 was constructed in 1993. Pursuant to 326 IAC 6-2-4 these boilers are limited as follows:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Year Permitted</th>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Q: Source Maximum Operating Capacity Rating at the Time of Each Boiler Construction (MMBtu/hr)</th>
<th>Pt: Particulate Emission Limitation (lb/MMBtu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler 004</td>
<td>1992</td>
<td>228</td>
<td>468</td>
<td>0.22</td>
</tr>
<tr>
<td>Boiler 005</td>
<td>1993</td>
<td>228</td>
<td>696</td>
<td>0.20</td>
</tr>
<tr>
<td>Boiler 003</td>
<td>Removed 2011</td>
<td>240</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3 Hot Water Generators</td>
<td>2015</td>
<td>8 total 24</td>
<td>456+24 = 480</td>
<td>0.22</td>
</tr>
<tr>
<td>*Boiler BU-2</td>
<td>2016</td>
<td>0.645</td>
<td>480+0.645</td>
<td>0.22</td>
</tr>
</tbody>
</table>

*This Boiler BU-2 is currently limited to 0.20 lb/MMBtu, which was miscalculated. See correction in the above table.

These limitations were based on the following equation:

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

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

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Boiler 004 and Boiler 005
Pursuant to 326 IAC 6-3-1(b)(1), Boiler 004 and Boiler 005 are not subject to the requirements of 326 IAC 6-3, because combustion for indirect heating are specifically exempt from this rule.

Space Heaters and Process Heaters (007), 021), DUH-56, DUH 88, DUH-40, DUH 57, UH-1 through UH-14, Air Supply House Burners (MOD 1 –MOD 10), Paint Shop and Body Shop Building Air Handling Units
Pursuant to 326 IAC 6-3-2(b)(1), natural gas combustion units are manufacturing processes that are specifically exempt under this rule.
ELPO Dipping (006), ELPO Dipping (20), Miscellaneous Sealers/Adhesives (009)
Pursuant to 326 IAC 6-3-1(b)(5), (6), (7), and (8), these units are not subject to the requirements of 326 IAC 6-3, because they apply materials by coating methods that are specifically exempt under this rule. Note: The sealer and adhesive are not sprayed, they are applied similar to caulking, which do not generate particulate overspray emissions.

Body Shop - Grinding and Machining
These units under insignificant activities shall be limited as follows:

(i) Pursuant to 326 IAC 6-3-2(e)(2) (Particulate Emission Limitations for Manufacturing Processes), the allowable PM emission rate from a manufacturing process shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour.

(ii) Pursuant to 326 IAC 6-3-2(e), the allowable PM emission rate from a manufacturing process shall not exceed \(E\), the pounds per hour allowable emission rate, when processing a process weight up to sixty thousand (60,000) pounds per hour as determined by the following equation:

\[
E = 4.10 P^{0.67}
\]

where \(E\) = rate of emission in pounds per hour and \(P\) = process weight rate in tons per hour

Primer Surfacer System (010), Topcoat System (008), and Final Repair Operation (012)
Pursuant to 326 IAC 6-3-2(d), these booths shall be controlled by a dry particulate filter, waterwash, or an equivalent control device and shall be operated in accordance with manufacturer's specifications.

326 IAC 7-1.1 Sulfur Dioxide Emission Limitations
This rule applies to emission units with potential to emit sulfur dioxide (SO2) equal to or greater than 25 tons per year or 10 pounds per hour.

There are no natural gas combustion units at the source that are subject to 326 IAC 7-1.1 because no unit has the potential to emit 25 tons per year or 10 pounds per hour.

326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)
This rule applies to facilities performing surface coating operations for automobile and light-duty truck, which include all passenger car or passenger car derivatives capable of seating twelve (12) or fewer passengers and any motor vehicle rated at 3,864 kilograms (eight thousand five hundred (8,500) pounds) gross weight or less which are designed primarily for the purpose of transportation or are derivatives of such vehicles, of which construction commences after January 1, 1980.

No owner or operator of an automotive or light duty truck assembly plant subject to this section may cause, allow, or permit the discharge into the atmosphere of any VOC from the application, flash-off, and curing of prime and topcoat coatings on automobile and light duty truck bodies, hoods, fenders, cargo boxes, doors, and grill opening panels to exceed the following:

(1) Twenty-three hundredths (0.23) kilogram per liter of coating (one and nine-tenths (1.9) pounds per gallon), excluding water, delivered to the applicator from prime application, flash-off area, and oven operations.

(2) Thirty-four hundredths (0.34) kilogram per liter of coating (two and eight-tenths (2.8) pounds per gallon) excluding water, delivered to the applicator from topcoat application, flash-off area, and oven operations.
(3) Fifty-eight hundredths (0.58) kilogram per liter of coating (four and eight-tenths (4.8) pounds per gallon) excluding water, delivered to the applicator from final repair application, flash-off area, and oven operations.

Therefore, the volatile organic compound (VOC) delivered to the applicator from ELPO Dipping Systems (006) and (20) Final Repair Operation (012), and Primer Surfacer (010) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed:

(1) 0.23 kilograms per liter of coating (1.9 pounds per gallon), excluding water, for each of the ELPO Dipping System (006) and ELPO Dipping System (20).

(2) 0.58 kilograms per liter of coating (4.8 pounds per gallon), excluding water, for the Final Repair Operation (012).

(3) Thirty-four hundredths (0.34) kilogram per liter of coating (two and eight-tenths (2.8) pounds per gallon) excluding water, for Topcoat (008) and Primer Surfacer (010).

Note: When the Primer Surfacer System (010) was permitted in 1994, a VOC limit was established pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating) because the 326 IAC 8-2-2 does not specifically list an emission limit for primer surfacer operations. IDEM, OAQ has determined, however, that 326 IAC 8-2-9 (Miscellaneous Metal Coating) limits do not apply to the Primer Surfacer System because this unit is part of an automobile and light duty truck coating operation, for which there is an industry-specific article 8 rule (326 IAC 8-2-2, Automobile and Light Duty Truck Coating Operations). Based on guidance from US EPA1 indicates that primer surfacer and topcoat applications are becoming progressively indistinguishable from each other. Unlike the initial electrodeposition prime coating, the primer surfacer coatings are applied by spray application and primer surfacers can be color-keyed to specific topcoat colors to provide additional color layers in case the primary color coating is damaged2. US EPA has interpreted that the recommended VOC emission limit for primer surfacer operations is the same as the recommended limit for topcoat operations in the 1977 Control Techniques Guidelines3. Therefore, consistent with US EPA, the VOC emission limit for the Primer Surfacer System (010) at General Motors Corporation - Truck Group shall be the same as the VOC emission limit for topcoat operations pursuant to 326 IAC 8-2-2(b)(2).

1 Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings (EPA-453/R-08-006)
2 Regulatory Impact Analysis for the Final Automobile and Light-Duty Truck Surface Coating NESHAP (EPA-452/R-04-007)
3 Control of Volatile Organic Emissions from Existing Stationary Sources Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (EPA-450/2-77-008)

326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a), the source may comply with the limits in 326 IAC 8-2, using one or any combination of the following: using higher solid coatings, using waterborne coatings, using VOC control and/or using alternative equivalent emission limitations pursuant to 326 IAC 8-1-2(a)(5).

Pursuant to 326 IAC 8-1-2(a), the VOC emission limitations under 326 IAC 8-2-2, for the Electrodeposition (ELPO) Coating Lines, identified as 006, and 020, and the existing Primer/Surfacer Coating Line, identified 010, shall be achieved through one (1) or any combination of the following: thermal incineration, use of higher solids (low solvent) coatings, and/or waterborne coatings.
Using Compliant Coatings:

\[
\text{VOC Content, lb/gal} = \left(\frac{\text{wt \% VOC} \times \text{density of coating in lbs/gallon}}{1 - \left(\text{vol \% water}/100\right)}\right)
\]

where:
wt % VOC content, density and water content can be determined from the Material Safety Data Sheets (MSDS)

Using daily averaging:

Compliance with the VOC content limit using a combination of compliant and non-compliant coatings shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

\[
A = \frac{\sum (C \times U)}{\sum U}
\]

Where:
A = is the volume weighted average in pounds VOC per gallon less water as applied;
C = is the VOC content of the coating in pounds VOC per gallon less water as applied; and
U = is the usage rate of the coating in gallons per day.

Using VOC Control:

The source may comply using VOC control equipment. In this case, the source must comply with the equivalent VOC emission limit expressed in terms of pound of VOC per gallon of coating solids. The equivalent emission limit is calculated using the following equation:

\[
E = \frac{L}{1 - \left(\frac{L}{D}\right)}
\]

\[
= 1.9 \times \frac{1 - 1.9}{7.36}
\]

\[
= 2.6 \text{ lbs/gallon of coating solids}
\]

Where
L = Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating (1.9 lb/gal);
D = Density of VOC in coating in pounds per gallon of VOC (7.36 lb/gal);
E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of 7.36 pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit contained in this article.

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

\[
O = \frac{V - E \times 100}{V}
\]

Where:
The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.

\[ V = \frac{\text{wt} \% \text{VOC}/100}{(1-\text{vol} \% \text{water}/100)} \times (\text{density of coating in lbs/gallon}) \]

where:
wt % VOC content, density and water content can be determined from the Material Safety Data Sheets (MSDS)

326 IAC 8-2-9 (Miscellaneous Metal Coating)
The Miscellaneous Sealers and Adhesives are applied to the metal part of the automobile and it is not regulated under 326 IAC 8-2-2. Therefore, this operation is subject to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), which limits the volatile organic compound (VOC) content of coating delivered to the applicator to 3.5 pounds per gallon of coating, excluding water, for extreme performance coatings or for coatings that are air dried or forced warm air dried at temperatures up to ninety (90) degrees Celsius (one hundred ninety-four (194) degrees Fahrenheit).

Pursuant to 326 IAC 8-1-2(a), the source may comply using one or any combination of the following: using compliant coatings, using daily averaging, using VOC control and/or using alternative equivalent emission limitations pursuant to 326 IAC 8-1-2(a)(5).

(1) Using Compliant Coatings:

\[ \text{VOC Content, lb/gal} = \frac{\text{wt} \% \text{VOC}/100}{(1-\text{vol} \% \text{water}/100)} \times (\text{density of coating in lbs/gallon}) \]

(2) Using daily averaging:

Compliance with the VOC content limit using a combination of compliant and non-compliant coatings shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

\[ A = \frac{\sum (C \times U)}{\sum U} \]

Where:
A = is the volume weighted average in pounds VOC per gallon less water as applied;
C = is the VOC content of the coating in pounds VOC per gallon less water as applied; and
U = is the usage rate of the coating in gallons per day.

Pursuant to 326 IAC 8-2-9(f), the Permittee shall use the following work practices to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, clean materials, and waste materials, including, but not limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

(i) 326 IAC 8-1-6 (New Facilities: General Reduction Requirements)
There are no emission units subject to 326 IAC 8-1-6, because the units involved in this modification are either subject to 326 IAC 8-2-2 or 326 IAC 8-2-9.

326 IAC 8-4-6 (Gasoline Dispensing Facilities)
Pursuant to 326 IAC 8-4-1(d), 326 IAC 8-4-6(a) and 326 IAC 8-4-6(b) apply to any gasoline storage tank at a gasoline dispensing facility with a monthly gasoline throughput of ten thousand (10,000) gallons per month or greater.

This rule applies to gasoline dispensing facilities, where gasoline is dispensed into motor vehicle fuel tanks or portable containers from a storage tank with a capacity of nine hundred forty-six (946) liters (two hundred fifty (250) gallons) or more. Diesel fuel and kerosene are not considered to be motor vehicle fuels.

Note: T003-33417-00036 stated that these dispensing facilities at the source are not subject to 326 IAC 8-4-6 because they were installed after July 1, 1989. This determination is incorrect.

The following gasoline dispensing operations are subject to 326 IAC 8-4-6, because they dispense monthly gasoline throughput of ten thousand (10,000) gallons per month or greater:

(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.

(2) One (1) Gasoline Fill Operation, identified as 014, constructed in 1985, including tanks 8 and 9, each with a capacity of 20,000 gallons. The vehicles being fueled is equipped with an Onboard Refueling Vapor Recovery (ORVR) System as VOC control;

Pursuant to 326 IAC 8-4-6(b), the Permittee shall not allow the transfer of gasoline between any transport and any storage tank unless such tank is equipped with the following:

(1) A submerged fill pipe that extends to not more than twelve (12) inches from the bottom of the storage tank if the fill pipe was installed on or before November 9, 2006.

(2) Either a pressure relief valve set to release at no less than seven-tenths (0.7) pounds per square inch or an orifice of five-tenths (0.5) inch in diameter.

(3) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications.

326 IAC 8-4-9 (Leaks from Transports and Vapor Collection Systems; Records)
This rule applies to all vapor balance systems and vapor control systems at sources subject to 326
326 IAC 8-4-6.

The owner or operator of a vapor balance system or vapor control system subject to this rule shall:

(1) design and operate the applicable system and the gasoline loading equipment in a manner that prevents:

(A) a reading equal to or greater than twenty-one thousand (21,000) parts per million as propane, from all points on the perimeter of a potential leak source when measured by the method referenced in 40 CFR 60, Appendix A, Method 21, or an equivalent procedure approved by the commissioner during loading or unloading operations at gasoline dispensing facilities, bulk plants, and bulk terminals; and

(B) avoidable visible liquid leaks during loading or unloading operations at gasoline dispensing facilities.

(2) within fifteen (15) days, repair and retest a vapor balance, collection, or control system that exceeds the limits in subdivision (1).

326 IAC 9-1 (Carbon Monoxide Emission Limits)

The requirements of 326 IAC 9-1 do not apply to the source’s units that emits CO, because this source does not operate a catalyst regeneration petroleum cracking system or a petroleum fluid coker, grey iron cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment.

326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)

The requirements of 326 IAC 10-3 do not apply to Boilers 004 and 005, since these units are not blast furnace gas-fired boilers.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure 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. 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.

(a) The Compliance Determination Requirements applicable to this source are as follows:
**Testing Requirements:**

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Control Device</th>
<th>Timeframe for Testing or Date of Initial Valid Demonstration</th>
<th>Pollutant/Parameter</th>
<th>Frequency of Testing</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELPO, 006</td>
<td>RTO #1-#3</td>
<td>2.5 years from last valid test</td>
<td>VOC/capture and destruction</td>
<td>Every 2.5 years</td>
<td>326 IAC 2-2, 326 IAC 8-2</td>
</tr>
<tr>
<td>ELPO, 20</td>
<td>RTO</td>
<td>2.5 years from last valid test</td>
<td>VOC/capture and destruction</td>
<td>Every 2.5 years</td>
<td>326 IAC 2-2, 326 IAC 8-2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Primer Surfacer RTO</td>
<td>Capture Efficiency test -60 days after using new sealers that will require the use of the Primer Surfacer, 010 RTO</td>
<td>VOC/capture and destruction</td>
<td>Every 2.5 years</td>
<td>326 IAC 2-2,</td>
</tr>
<tr>
<td>Sealers and Adhesives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primer Surfacer, 010</td>
<td>RTO</td>
<td>2.5 years from last valid test</td>
<td>VOC/capture and destruction</td>
<td>Every 2.5 years</td>
<td>326 IAC 2-2, 326 IAC 8-2</td>
</tr>
<tr>
<td>Topcoat, 008</td>
<td>RTO</td>
<td>2.5 years from last valid test</td>
<td>VOC/capture and destruction</td>
<td>Every 2.5 years</td>
<td>326 IAC 2-2, 326 IAC 8-2</td>
</tr>
<tr>
<td>Landfill gas-fired Generators</td>
<td>None</td>
<td>5 years from last valid test</td>
<td>*VOC, NOx, CO</td>
<td>Every 5 years</td>
<td>326 C 2-2</td>
</tr>
</tbody>
</table>

*Based on the recommendation from IDEM, Compliance Data Section, the PM2.5 repeat testing required for the four (4) identical landfill gas generators has been removed in this permitting action T003-41020-00036, since these generators do not have particulate controls and the initial stack test demonstrated compliance with the PM2.5 limit.*
**Continuous Emissions Monitoring System (CEMS) and Continuous Opacity Monitoring (COM) Requirements:**

<table>
<thead>
<tr>
<th>Control/ Emission Unit</th>
<th>Type of Continuous Monitor (Pollutant Monitored)</th>
<th>Applicable Rule or Authority</th>
</tr>
</thead>
</table>
| Boiler 004 and Boiler 005 | CEMS – NOx  
CEMS - CO | 326 IAC 2-2 for NOx  
326 IAC 3-5 for PM |

(b) The Compliance Monitoring Requirements applicable to this source are as follows:

<table>
<thead>
<tr>
<th>Control Device/ Emission Unit</th>
<th>Type of Parametric Monitoring</th>
<th>Frequency</th>
<th>Range or Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTO #1-#3/ELPO, 006</td>
<td>Operating temperature</td>
<td>Continuous</td>
<td>At or above the 3-hour average temperature observed during recent stack test</td>
</tr>
<tr>
<td>RTO/Primer Surfacer, 010</td>
<td>Operating temperature</td>
<td>Continuous</td>
<td>At or above the 3-hour average temperature observed during recent stack test</td>
</tr>
<tr>
<td>Waterwash/ Primer Surfacer, 010</td>
<td>Inspections for stack emissions and presence of overspray</td>
<td>Semi-Annual</td>
<td>Verify if there is an overspray condition that should result in a response</td>
</tr>
<tr>
<td>Catalytic Oxidizers/Topcoat</td>
<td>Operating temperature</td>
<td>Continuous</td>
<td>At or above the 3-hour average temperature observed during recent stack test</td>
</tr>
<tr>
<td>Waterwash/ Topcoat</td>
<td>Inspections for stack emissions and presence of overspray</td>
<td>Semi-Annual</td>
<td>Verify if there is an overspray condition that should result in a response</td>
</tr>
<tr>
<td>RTO/ELPO, 20</td>
<td>Operating temperature</td>
<td>Continuous</td>
<td>At or above the 3-hour average temperature observed during recent stack test</td>
</tr>
<tr>
<td>Duct Pressure or fan amperage</td>
<td></td>
<td>Daily</td>
<td>Normal range established from recent stack test</td>
</tr>
</tbody>
</table>

These monitoring conditions are necessary because the RTOs, catalytic oxidizer, for the two (2) ELPO dipping systems, Primer Surfacer, and Topcoat must operate properly to assure compliance with 326 IAC 2-2-3, and water washes and dry filters for these coating operations to assure compliance with 326 IAC 6-3-2.

**Conclusion and Recommendation**

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on January 8, 2019 for the “combined source determination” and for the Part 70 Operating Permit Renewal, the application was received on February 7, 2019.

The operation of this stationary automobile and light duty truck assembly plant shall be subject to the conditions of the attached proposed Part 70 Operating Permit Renewal No. T 003-41020-00036.

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved.
IDEM Contact

(a) If you have any questions regarding this permit, please contact Aida DeGuzman, Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or by telephone at (317) 233-4972 or (800) 451-6027, and ask for Aida DeGuzman or (317) 233-4972.

(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 Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens’ Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.
### Summary Uncontrolled Potential to Emit of Criteria Pollutants

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

<table>
<thead>
<tr>
<th>Emission Units</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Worst HAP (Formaldehyde)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GM LLC Lafayette Center Road Facility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiler 004 - Worst Case</td>
<td>3.79</td>
<td>15.18</td>
<td>15.18</td>
<td>1.20</td>
<td>95.11</td>
<td>4.99</td>
<td>79.89</td>
<td>60.90</td>
<td>0.25</td>
</tr>
<tr>
<td>Boiler 005 - Natural Gas</td>
<td>1.81</td>
<td>7.23</td>
<td>7.23</td>
<td>0.57</td>
<td>95.11</td>
<td>5.23</td>
<td>79.89</td>
<td>1.79</td>
<td>0.07</td>
</tr>
<tr>
<td>Generators Gen1 - Gen4</td>
<td>11.25</td>
<td>11.25</td>
<td>11.25</td>
<td>21.56</td>
<td>51.96</td>
<td>48.49</td>
<td>365.44</td>
<td>36.72</td>
<td>36.34</td>
</tr>
<tr>
<td>007 - Space heaters and process heaters</td>
<td>0.40</td>
<td>1.60</td>
<td>1.60</td>
<td>0.13</td>
<td>21.11</td>
<td>1.16</td>
<td>17.73</td>
<td>0.40</td>
<td>0.02</td>
</tr>
<tr>
<td>MOD 1-10 - 20 air supply house burners</td>
<td>2.00</td>
<td>7.99</td>
<td>7.99</td>
<td>0.63</td>
<td>105.12</td>
<td>5.78</td>
<td>88.30</td>
<td>1.98</td>
<td>0.08</td>
</tr>
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<td>006 - Thermal Incineration Natural Gas Combustion</td>
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## Appendix A: Updated Source-Wide Emission Calculations

### Summary Limited Potential to Emit of Criteria Pollutants

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 Lafayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

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<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
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<th>Worst HAP (Formaldehyde)</th>
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<th>VOC</th>
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<td>Storage Tanks (1, 2, 7, 8, 12, 13, 14, 15, and two waste purge solvent tanks)</td>
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<td>Space Heaters, Process Heaters, Boilers with Natural Gas less than 10 MMBtu/hr</td>
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<td>4.96</td>
<td>0.11</td>
<td>0.004</td>
</tr>
<tr>
<td>Stonebridge Facility-Generators</td>
<td>0.64</td>
<td>0.36</td>
<td>0.36</td>
<td>0.37</td>
<td>11.82</td>
<td>0.64</td>
<td>5.00</td>
<td>0.01</td>
<td>0.001</td>
</tr>
<tr>
<td>Stonebridge Facility- Tanks</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Stonebridge-Fugitive (Paved Roads)</td>
<td>8.73</td>
<td>1.75</td>
<td>0.43</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<td>--</td>
</tr>
</tbody>
</table>

Source Total Limited PTE (ton/yr): 117.07 141.81 140.49 27.33 482.60 3,337.28 760.04 104.64 36.97
### Appendix A: Emission Calculations

**Potential to Emit Increase Due to the Modification**

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

<table>
<thead>
<tr>
<th>Emission Units</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Worst Single HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>EG6</td>
<td>2.80E-05</td>
<td>3.63E-03</td>
<td>3.63E-03</td>
<td>2.14E-04</td>
<td>1.48</td>
<td>0.04</td>
<td>0.12</td>
<td>0.026</td>
<td>0.019 formaldehyde</td>
</tr>
<tr>
<td>EG7</td>
<td>1.90E-05</td>
<td>2.46E-03</td>
<td>2.46E-03</td>
<td>1.45E-04</td>
<td>1.01</td>
<td>0.03</td>
<td>0.08</td>
<td>0.018</td>
<td>0.013 formaldehyde</td>
</tr>
<tr>
<td>EG8</td>
<td>1.90E-05</td>
<td>2.46E-03</td>
<td>2.46E-03</td>
<td>1.45E-04</td>
<td>1.01</td>
<td>0.03</td>
<td>0.08</td>
<td>0.018</td>
<td>0.013 formaldehyde</td>
</tr>
<tr>
<td>EG9</td>
<td>1.21E-01</td>
<td>6.91E-02</td>
<td>6.91E-02</td>
<td>6.97E-01</td>
<td>4.13</td>
<td>0.12</td>
<td>0.95</td>
<td>0.002</td>
<td>9.36E-04 benzene</td>
</tr>
<tr>
<td>Totals</td>
<td>0.12</td>
<td>0.08</td>
<td>0.08</td>
<td>0.70</td>
<td>7.63</td>
<td>0.22</td>
<td>1.22</td>
<td>0.063</td>
<td>0.045 formaldehyde</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emission Units</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Worst Single HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTE of New Emission units</td>
<td>0.12</td>
<td>0.08</td>
<td>0.08</td>
<td>0.70</td>
<td>7.63</td>
<td>0.22</td>
<td>1.22</td>
<td>0.06</td>
<td>0.045 formaldehyde</td>
</tr>
<tr>
<td>PTE Increase of Modified Emission Units</td>
<td>0.40</td>
<td>1.61</td>
<td>1.61</td>
<td>0.13</td>
<td>21.24</td>
<td>1.17</td>
<td>17.84</td>
<td>0.40</td>
<td>0.382 hexane</td>
</tr>
<tr>
<td>Totals</td>
<td>0.52</td>
<td>1.69</td>
<td>1.69</td>
<td>0.82</td>
<td>28.87</td>
<td>1.39</td>
<td>19.06</td>
<td>0.46</td>
<td>0.38 hexane</td>
</tr>
</tbody>
</table>
**Appendix A Emissions Calculations**

**Natural Gas Combustion Only**

**PTE Increase of Modified Natural Gas-Fired Units**

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 Lafayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman  

**Heat Input Capacity**

<table>
<thead>
<tr>
<th>MMBlu/hr</th>
<th>mmscf/hr</th>
<th>MMCF/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>49.47</td>
<td>1020</td>
<td>424.8</td>
</tr>
</tbody>
</table>

**Potential Emission**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMCF</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>1.9</td>
<td>0.40</td>
</tr>
<tr>
<td>PM10*</td>
<td>7.6</td>
<td>1.61</td>
</tr>
<tr>
<td>direct PM2.5*</td>
<td>7.6</td>
<td>1.61</td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td>0.13</td>
</tr>
<tr>
<td>NOx</td>
<td>100</td>
<td>21.24</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td>1.17</td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
<td>17.84</td>
</tr>
</tbody>
</table>

**Hazardous Air Pollutants (HAPs)**

**HAPs - Organics**

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Benzene</th>
<th>Dichloro - benzene</th>
<th>Formaldehyde</th>
<th>Hexane</th>
<th>Toluene</th>
<th>Total - Organics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMcf</td>
<td>2.1E-03</td>
<td>1.2E-03</td>
<td>7.5E-02</td>
<td>1.8E+00</td>
<td>3.4E-03</td>
<td></td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>4.5E-04</td>
<td>2.5E-04</td>
<td>1.6E-02</td>
<td>0.38</td>
<td>7.2E-04</td>
<td>0.40</td>
</tr>
</tbody>
</table>

**HAPs - Metals**

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Lead</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Manganese</th>
<th>Nickel</th>
<th>Total - Metals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in tons/yr</td>
<td>5.0E-04</td>
<td>1.1E-03</td>
<td>1.4E-03</td>
<td>3.8E-04</td>
<td>2.1E-03</td>
<td></td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>1.1E-04</td>
<td>2.3E-04</td>
<td>3.0E-04</td>
<td>8.1E-05</td>
<td>4.5E-04</td>
<td>1.2E-03</td>
</tr>
</tbody>
</table>

**Methodology**

All emission factors are based on normal firing.  

**MMBtu = 1,000,000 Btu**  
**MMCF = 1,000,000 Cubic Feet of Gas**  
**Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03**  
**Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu**  
**Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton**

**Hazardous Air Pollutants (HAPs)**

**Worst HAP**

**Total HAPs** 0.40

**Additional HAPs emission factors are available in AP-42, Chapter 1.4.**
### Steam Elimination Project

- **Four (4) natural gas-fired dock door heaters**, identified as DUH-56, DUH-88, DUH-40, and DUH-57, approved in 2016 for construction, each with a maximum heat input capacity of 0.35 MMBtu/hr, and exhausting indoors.

- **One (1) natural gas-fired boiler**, identified as BU-2, approved in 2016 for construction, with a maximum heat input capacity of 0.3 MMBtu/hr, and exhausting indoors.

- **Bodyshop ACU #1**, approved in 2016 for construction, with a maximum heat input capacity of 0.700 MMBtu/hr.

- **Mod Obs ASH #1**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #2**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #3**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #4**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #5**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #6**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #7**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #8**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #9**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **Mod Obs ASH #10**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.652 MMBtu/hr.

- **206 ASH**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.394 MMBtu/hr.

- **Prime Cleanroom ASH**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.628 MMBtu/hr.

- **216 ASH #1 (SE)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.

- **216 ASH #2 (SW)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.

- **216 ASH #3 (NE)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.939 MMBtu/hr.

- **216 ASH #4 (NW)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.

- **217 ASH #1 (SE)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.

- **217 ASH #2 (SW)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.215 MMBtu/hr.

- **217 ASH #3 (NW)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 0.723 MMBtu/hr.

- **241 ASH #1 (SE)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 2.071 MMBtu/hr.

- **241 ASH #2 (SW)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.

- **243 ASH #1 (NE)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 1.456 MMBtu/hr.

- **243 ASH #2 (NW)**, constructed in 1985 as steam units and approved for modification in 2016 to be retrofitted with the ability to use natural gas, with a maximum heat input capacity of 4.653 MMBtu/hr.

*These modified units resulted in a decrease in emissions and are not reflected in the PTE increase calculation.*
Company Name: General Motors LLC Fort Wayne Assembly
Address City And Zip: 12200 Laffayette Center Road, Roanoke, IN 46783
Part 70 Renewal No.: 003-41020-00036
Reviewer: Aida DeGuzman

Maximum Output Horsepower Rating (hp) 194
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr) 7500
Maximum Hours Operated per Year (hr/yr) 500
Potential Fuel Usage (MMBtu/yr) 728
High Heat Value (MMBtu/MMscf) 1020
Potential Fuel Usage (MMcf/yr) 0.71

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor (lb/MMBtu)</td>
<td>7.71E-05</td>
<td>9.99E-03</td>
<td>9.99E-03</td>
<td>5.88E-04</td>
<td>4.08E+00</td>
<td>1.18E-01</td>
<td>3.17E-01</td>
</tr>
<tr>
<td>Potential Emissions (tons/yr)</td>
<td>2.80E-05</td>
<td>3.63E-03</td>
<td>3.63E-03</td>
<td>2.14E-04</td>
<td>1.48</td>
<td>0.04</td>
<td>0.12</td>
</tr>
</tbody>
</table>

*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM. PM2.5 emission factor is filterable PM2.5 + condensable PM.

HAP pollutants consist of the eleven highest HAPs included in AP-42 Table 3.2-2.

Methodology

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2

Potential Fuel Usage (MMBtu/yr) = \[\text{Maximum Output Horsepower Rating (hp)} \times \text{Brake Specific Fuel Consumption (Btu/hp-hr)} \times \text{Maximum Hours Operated per Year (hr/yr)} \] / 1000000 Btu/MMBtu

Potential Emissions (tons/yr) = \[\text{Potential Fuel Usage (MMBtu/yr)} \times \text{Emission Factor (lb/MMBtu)} \] / 2000 lb/ton

Greenhouse Gases (GHGs)

CO2, CH4, N2O

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CO2</th>
<th>CH4</th>
<th>N2O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMBtu</td>
<td>1.10</td>
<td>1.25</td>
<td>2.2</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>40.01</td>
<td>0.45</td>
<td>0.00</td>
</tr>
<tr>
<td>CO2e Total in tons/yr</td>
<td>40.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO2e Total in tons/yr</td>
<td>51.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Methodology

*The CO2 and CH4 emission factors are from Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
**The N2O emission factor is from AP-42, Table 1.4-2. The N2O Emission Factor for low Nox burner is 2.2. The N2O Emission Factor for uncontrolled is 0.64.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

For CO2 and CH4:  Emission (tons/yr) = \[\text{Potential Fuel Usage (MMBtu/yr)} \times \text{Emission Factor (lb/MMBtu)} \] / 2,000 lb/ton

For N2O:  Emission (tons/yr) = \[\text{Potential Fuel Usage (MMcf/yr)} \times \text{Emission Factor (lb/MMcf)} \] / 2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission (ton/yr) + CH4 Potential Emission (ton/yr) + N2O Potential Emission (ton/yr) x CO2 GWP (1) + CH4 Potential Emission (ton/yr) x CH4 GWP (2) + N2O Potential Emission (ton/yr) x N2O GWP (298).

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
CO2 = Carbon Dioxide
VOC = Volatile Organic Compounds
CH4 = Methane
CO = Carbon Monoxide
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions
Appendix A: Emission Calculations

Reciprocating Internal Combustion Engines - Natural Gas
4-Stroke Lean-Burn (4SLB) Engine - EG7

Company Name: General Motors LLC Fort Wayne Assembly
Address City Zip: 12200 Lafayette Center Road, Roanoke, IN 46783
Part 70 Renewal No.: 003-41020-00036
Reviewer: Aida DeGuzman

Maximum Output Horsepower Rating (hp) = 131.6
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr) = 7500
Maximum Hours Operated per Year (hr/yr) = 500
Potential Fuel Usage (MMBtu/yr) = 494
High Heat Value (MMBtu/MMscf) = 1020
Potential Fuel Usage (MMcf/yr) = 0.48

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor (lb/MMBtu)</td>
<td>7.71E-05</td>
<td>9.99E-03</td>
<td>9.99E-03</td>
<td>5.98E-04</td>
<td>4.08E+00</td>
<td>1.18E-01</td>
<td>3.77E-01</td>
</tr>
<tr>
<td>Potential Emissions (tons/yr)</td>
<td>1.90E-05</td>
<td>2.48E-03</td>
<td>2.48E-03</td>
<td>1.45E-04</td>
<td>1.01</td>
<td>0.03</td>
<td>0.08</td>
</tr>
</tbody>
</table>

PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM + condensable PM.
PM2.5 emission factor is filterable PM2.5 + condensable PM.

HAP pollutants consist of the eleven highest HAPs included in AP-42 Table 3.2-2.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb/MMBtu)</th>
<th>Potential Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaldehyde</td>
<td>8.9E-05</td>
<td>0.000</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>1.1E-05</td>
<td>0.001</td>
</tr>
<tr>
<td>Benzene</td>
<td>4.4E-04</td>
<td>0.000</td>
</tr>
<tr>
<td>Butadiene</td>
<td>2.1E-04</td>
<td>0.000</td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>2.6E-04</td>
<td>0.000</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>5.2E-05</td>
<td>0.013</td>
</tr>
<tr>
<td>Methanol</td>
<td>2.5E-05</td>
<td>0.000</td>
</tr>
<tr>
<td>Methylene</td>
<td>1.1E-05</td>
<td>0.000</td>
</tr>
<tr>
<td>Toluene</td>
<td>4.0E-04</td>
<td>0.000</td>
</tr>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>2.5E-04</td>
<td>0.000</td>
</tr>
<tr>
<td>Xylene</td>
<td>1.8E-04</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Total Potential Emissions (tons/yr) = 0.02

Methodology
Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] * [Brake Specific Fuel Consumption (Btu/hp-hr)] * [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]
Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2000 lb/ton]
Reciprocating Internal Combustion Engines - Natural Gas
4-Stroke Lean-Burn (4SLB) Engine - EG8

Company Name: General Motors LLC Fort Wayne Assembly
Address City Zip: 12200 LaFayette Center Road, Roanoke, IN 46783
Part 70 Renewal No.: 003-41020-00036
Reviewer: Aida DeGuzman

Appendix A: Emission Calculations

Maximum Output Horsepower Rating (hp): 131.6
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr): 7500
Potential Fuel Usage (MMBtu/MMscf): 1020

Criteria Pollutants

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor (lb/MMBtu)</td>
<td>7.71E-05</td>
<td>9.99E-03</td>
<td>9.99E-03</td>
<td>5.88E-04</td>
<td>4.08E+00</td>
<td>1.18E-01</td>
<td>3.17E-01</td>
</tr>
<tr>
<td>Potential Emissions (tons/yr)</td>
<td>1.90E-05</td>
<td>2.46E-03</td>
<td>2.46E-03</td>
<td>1.45E-04</td>
<td>1.01</td>
<td>0.03</td>
<td>0.08</td>
</tr>
</tbody>
</table>

*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM. PM2.5 emission factor is filterable PM2.5 + condensable PM.

Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb/MMBtu)</th>
<th>Potential Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaldehyde</td>
<td>8.36E-03</td>
<td>0.002</td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>5.14E-03</td>
<td>0.001</td>
</tr>
<tr>
<td>Benzene</td>
<td>4.62E-03</td>
<td>0.000</td>
</tr>
<tr>
<td>Benzenesulfonamide</td>
<td>2.12E-04</td>
<td>0.000</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>5.23E-04</td>
<td>0.013</td>
</tr>
<tr>
<td>Methanol</td>
<td>2.52E-05</td>
<td>0.001</td>
</tr>
<tr>
<td>Methane</td>
<td>1.05E-05</td>
<td>0.000</td>
</tr>
<tr>
<td>Toluene</td>
<td>4.08E-06</td>
<td>0.000</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>2.50E-04</td>
<td>0.000</td>
</tr>
<tr>
<td>Xylene</td>
<td>1.84E-04</td>
<td>0.000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0.02</td>
</tr>
</tbody>
</table>

HAP pollutants consist of the eleven highest HAPs included in AP-42 Table 3.2-2.

Methodology

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
Potential Fuel Usage (MMBtu/MMscf) = [Maximum Output Horsepower Rating (hp)] * [Brake Specific Fuel Consumption (Btu/hp-hr)] * [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]
Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

Greenhouse Gases (GHGs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CO2*e (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Emissions (tons/yr)</td>
<td>27.14</td>
</tr>
<tr>
<td>CO2e Total in tons/yr</td>
<td>35.01</td>
</tr>
</tbody>
</table>

Methodology

*The CO2 and CH4 emission factors are from Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
**The N2O emission factor is from AP-42, Table 1.4-2. The N2O Emission Factor for low Nox burner is 0.64.

For CO2 and CH4: Emission (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
For N2O: Emission (tons/yr) = [Potential Fuel Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] / [2,000 lb/ton]

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
NOx = Nitrous Oxides
SO2 = Sulphur Dioxide
VOC = Volatile Organic Compounds
CO2 = Carbon Dioxide
CH4 = Methane
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions
Appendix A: Emission Calculations
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)

Company Name: General Motors LLC Fort Wayne Assembly
Address City IN Zip: 12200 LaFayette Center Road, Roanoke, IN 46783
Part 70 Renewal No.: 003-41020-00036
Reviewer: Aida DeGuzman

A. Emissions calculated based on output rating (hp)

<table>
<thead>
<tr>
<th>Output Horsepower Rating (hp)</th>
<th>689.0</th>
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</thead>
<tbody>
<tr>
<td>Maximum Hours Operated per Year</td>
<td>500</td>
</tr>
<tr>
<td>Potential Throughput (hp-hr/yr)</td>
<td>344,500</td>
</tr>
<tr>
<td>Sulfur Content (S) of Fuel (% by weight)</td>
<td>0.500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr</td>
<td>7.00E-04</td>
<td>4.01E-04</td>
<td>4.01E-04</td>
<td>4.05E-03</td>
<td>2.40E-02</td>
<td>7.05E-04</td>
<td>5.50E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.12</td>
<td>0.07</td>
<td>0.07</td>
<td>0.70</td>
<td>4.13</td>
<td>0.12</td>
<td>0.95</td>
</tr>
</tbody>
</table>

*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
<th>Total PAH HAPs***</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr****</td>
<td>5.43E-06</td>
<td>1.97E-06</td>
<td>1.35E-06</td>
<td>5.52E-07</td>
<td>1.76E-07</td>
<td>5.52E-08</td>
<td>1.48E-06</td>
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</tr>
</tbody>
</table>

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

Option B Methodology

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
### Permitted in 2015

<table>
<thead>
<tr>
<th></th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Worst HAP (Hexane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 Full Size Truck Project</td>
<td>1.77</td>
<td>7.07</td>
<td>7.07</td>
<td>0.56</td>
<td>93.08</td>
<td>5.12</td>
<td>78.19</td>
<td>1.76</td>
<td>1.68</td>
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</table>

### Approved in 2017 as Modified

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<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Worst HAP (Hexane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 Full Size Truck Project</td>
<td>1.99</td>
<td>7.96</td>
<td>7.96</td>
<td>0.63</td>
<td>104.70</td>
<td>5.76</td>
<td>87.95</td>
<td>1.98</td>
<td>1.88</td>
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### Increase in PTE from 2017 Modification

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<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Worst HAP (Hexane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 Full Size Truck Project</td>
<td>0.22</td>
<td>0.88</td>
<td>0.88</td>
<td>0.07</td>
<td>11.62</td>
<td>0.64</td>
<td>9.76</td>
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<td>Dock Door Heaters</td>
<td>Paint Shop &amp; Process Air Handling</td>
<td>Paint Shop Process Air Handling</td>
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<tr>
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<tr>
<td><strong>Unit</strong></td>
<td><strong>MMBtu/hr</strong></td>
<td><strong>Unit</strong></td>
<td><strong>MMBtu/hr</strong></td>
<td><strong>Unit</strong></td>
<td><strong>MMBtu/hr</strong></td>
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<td>DUH-66</td>
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<td>UH-1</td>
<td>0.125</td>
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<td>6.631</td>
<td>Mod Obs ASH #1</td>
<td>2.652</td>
<td></td>
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<td>DUH-88</td>
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<td>UH-2</td>
<td>0.125</td>
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<td>2.652</td>
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<td>DUH-40</td>
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<td>UH-4</td>
<td>0.125</td>
<td>Paint Bld ASH #6</td>
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<td>Mod Obs ASH #4</td>
<td>2.652</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>UH-5</strong></td>
<td><strong>0.125</strong></td>
<td>Paint Bld ASH #16</td>
<td><strong>1.989</strong></td>
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<td>UH-6</td>
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<td>Paint Bld ASH #17</td>
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<td>Mod Obs ASH #6</td>
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<tr>
<td>DUH-7</td>
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<td>UH-7</td>
<td>0.125</td>
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<td><strong>6.631</strong></td>
<td>Mod Obs ASH #7</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>UH-8</strong></td>
<td><strong>0.125</strong></td>
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<td>Mod Obs ASH #8</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>UH-10</strong></td>
<td><strong>0.125</strong></td>
<td>Paint Bld ASH #21</td>
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<td>Mod Obs ASH #10</td>
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<td>BU-3</td>
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<td>BU-12</td>
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<td>UH-12</td>
<td>0.125</td>
<td>Paint Bld ASH #34</td>
<td><strong>3.617</strong></td>
<td>Prime Cleanroom ASH</td>
<td><strong>1.628</strong></td>
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<td>UH-13</td>
<td>0.125</td>
<td>Paint Bld ASH #35</td>
<td><strong>4.219</strong></td>
<td>216 ASH #1 (SE)</td>
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<td>UH-14</td>
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<td>Paint Bld ASH #36</td>
<td><strong>1.989</strong></td>
<td>216 ASH #2 (SW)</td>
<td><strong>0.939</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BU-15</td>
<td>0.125</td>
<td>UH-15</td>
<td>0.125</td>
<td>Paint Bld ASH #37</td>
<td><strong>1.447</strong></td>
<td>216 ASH #3 (NE)</td>
<td><strong>0.939</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1.75</strong></td>
<td><strong>UH-16</strong></td>
<td><strong>0.125</strong></td>
<td>Bodyshop ACU #1</td>
<td><strong>0.700</strong></td>
<td>216 ASH #4 (NW)</td>
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<td>BU-17</td>
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<td>UH-17</td>
<td>0.125</td>
<td>Bodyshop ACU #2</td>
<td><strong>0.464</strong></td>
<td>217 ASH #1 (SE)</td>
<td><strong>1.215</strong></td>
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<tr>
<td>BU-18</td>
<td>0.125</td>
<td>UH-18</td>
<td>0.125</td>
<td>Bodyshop ACU #3</td>
<td><strong>0.464</strong></td>
<td>217 ASH #2 (SW)</td>
<td><strong>1.215</strong></td>
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<tr>
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<td>UH-19</td>
<td>0.125</td>
<td>Bodyshop ACU #4</td>
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<td>217 ASH #3 (NW)</td>
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<td>BU-20</td>
<td>0.125</td>
<td>UH-20</td>
<td>0.125</td>
<td>Bodyshop ACU #5</td>
<td><strong>0.228</strong></td>
<td>217 ASH #4 (NE)</td>
<td><strong>0.723</strong></td>
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<tr>
<td>BU-21</td>
<td>0.125</td>
<td>UH-21</td>
<td>0.125</td>
<td>Bodyshop ACU #6</td>
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<td><strong>Total</strong></td>
<td><strong>63.326</strong></td>
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<tr>
<td><strong>Grand Total</strong></td>
<td><strong>119.859</strong> MMBtu/hr</td>
<td><strong>241 ASH #1 (SE)</strong></td>
<td><strong>2.071</strong></td>
<td><strong>241 ASH #2 (SW)</strong></td>
<td><strong>4.653</strong></td>
<td><strong>243 ASH #1 (NE)</strong></td>
<td><strong>1.456</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>53,507</strong> MMBtu/hr</td>
<td><strong>243 ASH #2 (NW)</strong></td>
<td><strong>4.653</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

### Natural Gas Combustion Only

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>MMBtu/hr</th>
<th>mmscf/hr</th>
<th>MMCF/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>119.9</td>
<td>1020</td>
<td>1029.4</td>
</tr>
<tr>
<td>PM10*</td>
<td>0.98</td>
<td>3.91</td>
<td>3.91</td>
</tr>
<tr>
<td>Direct PM2.5*</td>
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<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td>0.31</td>
<td>0.31</td>
</tr>
<tr>
<td>NOx</td>
<td>100.0</td>
<td>51.47</td>
<td>2.83</td>
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<tr>
<td>VOC</td>
<td>5.5</td>
<td>84.0</td>
<td>43.23</td>
</tr>
<tr>
<td>CO</td>
<td>84.0</td>
<td>84.0</td>
<td>84.0</td>
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</table>

**HHV Heat Input Capacity**  
**Potential Throughput**

**Emission Factor in lb/MMCF**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>Direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
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<tbody>
<tr>
<td>Emission</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>100.0</td>
<td>5.5</td>
<td>84.0</td>
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<tr>
<td>Factors</td>
<td><strong>see below</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Potential Emission in tons/yr**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>Direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
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</thead>
<tbody>
<tr>
<td>Emission</td>
<td>0.98</td>
<td>3.91</td>
<td>3.91</td>
<td>0.31</td>
<td>51.47</td>
<td>2.83</td>
<td>43.23</td>
</tr>
<tr>
<td>Factors</td>
<td><strong>see below</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Methodology**

All emission factors are based on normal firing.  
**MMBtu** = 1,000,000 Btu  
**MMCF** = 1,000,000 Cubic Feet of Gas  
**Potential Throughput (MMCF)** = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

**Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/98)

**Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton**

### Hazardous Air Pollutants (HAPs)

**HAPs - Organics**

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMCF</th>
<th>Benzene</th>
<th>Dichlorobenzene</th>
<th>Formaldehyde</th>
<th>Hexane</th>
<th>Toluene</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2.1E-03</td>
<td>1.2E-03</td>
<td>7.5E-02</td>
<td>1.9E+00</td>
<td>3.4E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>1.08E-03</td>
<td>6.18E-04</td>
<td>3.86E-02</td>
<td>9.26E-01</td>
<td>1.75E-03</td>
</tr>
</tbody>
</table>

**HAPs - Metals**

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMCF</th>
<th>Lead</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Manganese</th>
<th>Nickel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.0E-04</td>
<td>1.1E-03</td>
<td>1.4E-03</td>
<td>3.8E-04</td>
<td>2.1E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>2.57E-04</td>
<td>5.66E-04</td>
<td>7.21E-04</td>
<td>1.96E-04</td>
<td>1.08E-03</td>
</tr>
</tbody>
</table>

**Methodology is the same above.**

The five highest organic and metal HAPs emission factors are provided above.  
**Additional HAPs emission factors are available in AP-42, Chapter 1.4.**
Appendix A: Emission Calculations

Natural Gas Combustion Only

MMBTU/Hr >100

Steam Elimination Project - Limited PTE

Company Name: General Motors LLC Fort Wayne Assembly
Address City IN Zip: 12200 LaFayette Center Road, Roanoke, IN 46783
Part 70 Renewal No.: 003-41020-00036
Reviewer: Aida DeGuzman

Limited Throughput

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMCF</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PM*</td>
<td>PM10*</td>
</tr>
<tr>
<td>Emission Factor</td>
<td>1.9</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.24</td>
</tr>
</tbody>
</table>

- PM emission factor is filterable PM only.
- PM10 emission factor is condensable and filterable PM10 combined.
- PM2.5 emission factor is condensable and filterable PM2.5 combined.
- **Emission Factors for NOx:** Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

HAPs - Organics

<table>
<thead>
<tr>
<th></th>
<th>Benzene</th>
<th>Dichlorobenzene</th>
<th>Formaldehyde</th>
<th>Hexane</th>
<th>Toluene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>2.1E-03</td>
<td>1.2E-03</td>
<td>7.6E-02</td>
<td>1.8E+00</td>
<td>3.4E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>8.35E-04</td>
<td>4.77E-04</td>
<td>2.98E-02</td>
<td>7.16E-01</td>
<td>1.35E-03</td>
</tr>
</tbody>
</table>

HAPs - Metals

<table>
<thead>
<tr>
<th></th>
<th>Lead</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Manganese</th>
<th>Nickel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>5.0E-04</td>
<td>1.1E-03</td>
<td>1.4E-03</td>
<td>3.8E-04</td>
<td>2.1E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>1.99E-04</td>
<td>4.37E-04</td>
<td>5.57E-04</td>
<td>1.51E-04</td>
<td>8.35E-04</td>
</tr>
</tbody>
</table>

Methodology is the same above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.
## Appendix A: Emissions Calculations

### VOC and Particulate
### From Surface Coating Operations

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 Lafayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

<table>
<thead>
<tr>
<th>Process/Material</th>
<th>( V_C ) (lb VOC/gal coating, less water)</th>
<th>( S_C ) (gal solids/gal coating)</th>
<th>( A_V ) (ft^2/vehicle)</th>
<th>( T_f ) (mil)</th>
<th>( E_v ) (fraction of total coating solids used that remains on coated parts)</th>
<th>Maximum Production Rate (vehicles/hr)</th>
<th>PTE VOC (lb/hr)</th>
<th>PTE VOC (ton/yr)</th>
<th>Thermal Incinerator Overall Control Efficiency</th>
<th>Controlled PTE VOC (ton/yr)</th>
<th>Limited PTE VOC (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELPO Dipping System, ID 020</td>
<td>0.741</td>
<td>0.9068</td>
<td>1270</td>
<td>1.70</td>
<td>1.0</td>
<td>1.10</td>
<td>74</td>
<td>81.38</td>
<td>356.4</td>
<td>95.00%</td>
<td>17.82</td>
</tr>
</tbody>
</table>

Note: All three (3) RTOs are operating when ELPO, ID020 is operating.

### Methodology

\[
V_C = \text{VOC content of coating as applied, less water (lb VOC/gal coating, less water) - value provided by Permittee}
\]

\[
S_C = \text{Solids in coating as applied (gal solids/gal coating) - value provided by Permittee}
\]

\[
A_V = \text{Area coated per vehicle (ft^2/vehicle) - value provided by Permittee}
\]

\[
T_f = \text{Thickness of the dry coating film (mil) - value provided by Permittee}
\]

\[
e_T = \text{Transfer efficiency fraction (fraction of total coating solids used that remains on coated parts) - value provided by Permittee}
\]

\[
E_v = \text{Emission Factor for VOC (lb VOC/vehicle)}
\]

Per AP-42, Chapter 4, Section 4.2.2.8, Automobile and Light Duty Truck Surface Coating Operations (8/82), the VOC emission factor may be determined by the equation below:

\[
E_V = \frac{A_V \cdot T_f \cdot (1/12,000 \text{ mil}) \cdot (7.48 \text{ gal} / \text{ ft}^3) \cdot V_C}{S_C \cdot e_T}
\]

### NEW EMISSION UNIT

#### Miscellaneous Sealers and Adhesives

<table>
<thead>
<tr>
<th>Material usage per job</th>
<th>1.20 gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material VOC content</td>
<td>0.4 VOC/gal</td>
</tr>
<tr>
<td>Maximum Production Rate</td>
<td>74 Jobs per hour</td>
</tr>
</tbody>
</table>

### Modiﬁed Emission Unit (Topcoat)

#### Density (lb/gal) | Weight % Volatile (H2O & Organics) | Gal of Mat (gal/unit) | Maximum Production Rate (unit/hour) | Pounds VOC per gallon of coating | PTE VOC (lb/hr) | PTE VOC (ton/yr) | Transfer Efficiency | VOC/PM Control | Overall VOC Control Efficiency | Controlled PTE VOC (ton/yr) | PM Control Efficiency | Controlled PTE PM (ton/yr) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Coat</td>
<td>7.68</td>
<td>61.20%</td>
<td>1.11800</td>
<td>74.000</td>
<td>4.70</td>
<td>388.84</td>
<td>1703.12</td>
<td>61%</td>
<td>14%</td>
<td>1471.50</td>
<td>95%</td>
<td>21.06</td>
</tr>
<tr>
<td>Clear Coat</td>
<td>7.7</td>
<td>56.20%</td>
<td>1.79000</td>
<td>74.000</td>
<td>4.30</td>
<td>569.58</td>
<td>2494.75</td>
<td>61%</td>
<td>14%</td>
<td>2155.47</td>
<td>95%</td>
<td>37.96</td>
</tr>
</tbody>
</table>

### Typical VOC Emissions

\[
\text{VOC PTE, tons/yr} = \text{Material usage per job, gallons} \times \text{Maximum production rate, jobs/hour} \times \text{VOC content, lbs VOC/gal} \times 8760 \text{ hrs/yr} \times \text{ton/2000 lbs}
\]
### Appendix A: Emissions Calculations

ELPO Natural Gas Combustion

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

Approved in 2015 for construction

<table>
<thead>
<tr>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Amended in 2017 Heat Input Capacity (MMBtu/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 RTO</td>
<td>9 RTO</td>
</tr>
<tr>
<td>5 ASH Paint Heaters</td>
<td>30 5 ASH Paint Heaters</td>
</tr>
<tr>
<td>ASH Paint Heaters</td>
<td>8 Not installed</td>
</tr>
<tr>
<td>3 Hot Water Generators</td>
<td>24 3 Hot Water Generators</td>
</tr>
<tr>
<td>Locker Room Heater</td>
<td>0.675 Locker Room Heater 0.675</td>
</tr>
<tr>
<td>4 Door Heaters</td>
<td>1.92 Door Heaters</td>
</tr>
<tr>
<td>8 Unit Heaters</td>
<td>0.464 8 Unit Heaters</td>
</tr>
<tr>
<td>14 ELPO Oven Convection</td>
<td>42 14 ELPO Oven Convection</td>
</tr>
<tr>
<td>12 ELPO Oven Radiant</td>
<td>36.0 14 ELPO Oven Radiant 42.0</td>
</tr>
<tr>
<td>59 Dock Door Heaters</td>
<td>23.6 59 Dock Door Heaters 23.6</td>
</tr>
<tr>
<td>39 ASH Heaters</td>
<td>37.908 39 ASH Heaters 37.908</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential Throughput (MMCF/yr)</th>
<th>Total Potential Throughput (MMCF/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1861.6</td>
<td>216.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential Emission in tons/yr</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.77</td>
<td>0.57</td>
</tr>
<tr>
<td>1.99</td>
<td>2.28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amended Potential Emission in tons/yr</th>
<th>Amended Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>0.0005</td>
<td>0.0005</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limited PTE</th>
<th>Limited PTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.001</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50; Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

### HAPs - Organics

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Benzene 2.1E-03</th>
<th>Dichlorobenzene 1.2E-03</th>
<th>Formaldehyde 7.5E-02</th>
<th>Hexane 1.8E+00</th>
<th>Toluene 3.4E-03</th>
<th>Total - Organics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.002</td>
<td>0.0011</td>
<td>0.07</td>
<td>1.68</td>
<td>0.003</td>
<td>1.75</td>
</tr>
<tr>
<td>Amended Potential Emission in tons/yr</td>
<td>0.002</td>
<td>0.0013</td>
<td>0.08</td>
<td>1.88</td>
<td>0.004</td>
<td>1.97</td>
</tr>
<tr>
<td>Limited PTE</td>
<td>0.001</td>
<td>0.0004</td>
<td>0.02</td>
<td>0.54</td>
<td>0.001</td>
<td>0.56</td>
</tr>
</tbody>
</table>

### HAPs - Metals

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Lead 5.0E-04</th>
<th>Cadmium 1.0E-03</th>
<th>Chromium 1.4E-03</th>
<th>Manganese 3.8E-04</th>
<th>Nickel 2.1E-03</th>
<th>Total - Metals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.0005</td>
<td>0.0010</td>
<td>0.0013</td>
<td>0.0004</td>
<td>0.002</td>
<td>0.005</td>
</tr>
<tr>
<td>Amended Potential Emission in tons/yr</td>
<td>0.0005</td>
<td>0.0012</td>
<td>0.0015</td>
<td>0.0004</td>
<td>0.002</td>
<td>0.006</td>
</tr>
<tr>
<td>Limited PTE</td>
<td>0.0002</td>
<td>0.0003</td>
<td>0.0004</td>
<td>0.0001</td>
<td>0.001</td>
<td>0.002</td>
</tr>
</tbody>
</table>

| Unlimited Total HAPs | 1.76 |
| Amended Unlimited Total HAPs | 1.98 |
| Limited Total HAPs | 0.57 |

**Methodology is the same as above.**

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.
Appendix A: Emission Calculations
Grinding/Machining Particulate Emissions

Company Name: General Motors LLC Fort Wayne Assembly
Address City IN Zip: 12200 LaFayette Center Road, Roanoke, IN 46783
Part 70 Renewal No.: 003-41020-00036
Reviewer: Aida DeGuzman

NEW EMISSION UNITS

<table>
<thead>
<tr>
<th>BODY SHOP</th>
<th>Outlet Grain Loading (gr/dscf)</th>
<th>Flow Rate (acfm)</th>
<th>PM/PM10/PM 2.5 (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grinding and Machining Operations</td>
<td>0.03</td>
<td>4000</td>
<td>4.51</td>
</tr>
</tbody>
</table>

Meet the insignificant activity under 326 IAC 2-7-1(21)(J)(xxiii)

Methodology

PTE PM/PM10 (ton/yr) =
Grain Loading (gr/dsf) * Airflow (acfm) * (60 min/hr) * (8760 hr/yr) * (1 lb/7000 gr) * (1 ton/2000 lb)
## Appendix A: Emission Calculations

### Natural Gas Combustion Only

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMCF</th>
<th>Potential Throughput (MMCF/yr)</th>
<th>Potential Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM&lt;sup&gt;*&lt;/sup&gt;</td>
<td>1.9</td>
<td>228</td>
</tr>
<tr>
<td>PM10&lt;sup&gt;*&lt;/sup&gt;</td>
<td>7.6</td>
<td>1902.17</td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td>1.8</td>
</tr>
<tr>
<td>NOx</td>
<td>190.0</td>
<td>7.2</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td>0.6</td>
</tr>
<tr>
<td>CO</td>
<td>84.0</td>
<td>95.1</td>
</tr>
</tbody>
</table>

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)**

### HAPs - Organics

<table>
<thead>
<tr>
<th>Emissions Unit</th>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Potential Throughput (MMCF/yr)</th>
<th>Potential Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler 004 - Alternative Operating Scenario</td>
<td>228</td>
<td>1902.17</td>
<td>2.0E-03</td>
</tr>
<tr>
<td>Boiler 005 - Alternative Operating Scenario</td>
<td>228</td>
<td>1902.17</td>
<td>2.0E-03</td>
</tr>
</tbody>
</table>

### HAPs - Metals

<table>
<thead>
<tr>
<th>Emissions Unit</th>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Potential Throughput (MMCF/yr)</th>
<th>Potential Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler 004 - Alternative Operating Scenario</td>
<td>228</td>
<td>1902.17</td>
<td>4.8E-04</td>
</tr>
<tr>
<td>Boiler 005 - Alternative Operating Scenario</td>
<td>228</td>
<td>1902.17</td>
<td>4.8E-04</td>
</tr>
</tbody>
</table>

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

### Methodology

All emission factors are based on normal firing.

- MMBtu = 1,000,000 Btu
- MMBtu/1000 = 1,000,000 Cubic Feet of Gas
- Heating Value of Natural Gas = 1020 MMBtu/MMCF
- Potential Emissions (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) / 2,000 lb/ton

### Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMCF</th>
<th>CO2</th>
<th>CH4</th>
<th>N2O</th>
<th>Subtotal</th>
<th>CO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Unit</td>
<td>120000.0</td>
<td>2.30</td>
<td>2.20</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP-42, Table 1.4-2

- SCC #1-01-006-06, 1-01-006-02, 1-03-006-02, 1-03-006-01
- Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

**Emission factors**

- CO2 GWP (1) = CO2 Potential Emission ton/yr
- CH4 GWP (25) = CH4 Potential Emission ton/yr
- CO2e (t/yr) = CO2 Potential Emission ton/yr
### Appendix A: Emission Calculations

**Natural Gas Combustion Only**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>0.6</td>
<td>0.026</td>
<td>5.5</td>
<td>84.0</td>
</tr>
</tbody>
</table>

**Emissions Unit**

<table>
<thead>
<tr>
<th>Emissions Unit</th>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Potential Throughput (MMCF/yr)</th>
<th>Potential Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity:</td>
<td>50.6</td>
<td>422.149</td>
<td>0.401</td>
</tr>
<tr>
<td>MOD 1 - MOD10: Natural gas fired air supply houses - each contain two 12.6 MMBtu/hr burners</td>
<td>252</td>
<td>2102.400</td>
<td>1.997</td>
</tr>
<tr>
<td>Thermal Incinerators for ELPO Dipping System (006)</td>
<td>50</td>
<td>417.143</td>
<td>0.396</td>
</tr>
<tr>
<td>RTO for Primer Surfacer System (010)</td>
<td>16</td>
<td>133.486</td>
<td>0.127</td>
</tr>
<tr>
<td>Catalytic oxidizers for Topcoat system (008) - 10 oxidizers with combined heat input capacity:</td>
<td>81</td>
<td>675.771</td>
<td>0.642</td>
</tr>
<tr>
<td>Insignificant Activities: Space heaters, process heaters, or boilers with heat input capacities ≤ 10 MMBtu/hr</td>
<td>10</td>
<td>83.429</td>
<td>0.079</td>
</tr>
</tbody>
</table>

**HAPs - Organics**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Dichlorobenzene</th>
<th>Formaldehyde</th>
<th>Hexane</th>
<th>Toluene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>2.1E-03</td>
<td>1.2E-03</td>
<td>7.5E-02</td>
<td>1.8E-00</td>
<td>3.4E-03</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emissions Unit</th>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Potential Throughput (MMCF/yr)</th>
<th>Potential Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity:</td>
<td>50.6</td>
<td>422.149</td>
<td>4.4E-04</td>
</tr>
<tr>
<td>MOD 1 - MOD10: Natural gas fired air supply houses - each contain two 12.6 MMBtu/hr burners</td>
<td>252</td>
<td>2102.400</td>
<td>2.2E-03</td>
</tr>
<tr>
<td>Thermal Incinerators for ELPO Dipping System (006)</td>
<td>50</td>
<td>417.143</td>
<td>4.4E-04</td>
</tr>
<tr>
<td>RTO for Primer Surfacer System (010)</td>
<td>16</td>
<td>133.486</td>
<td>1.4E-04</td>
</tr>
<tr>
<td>Catalytic oxidizers for Topcoat system (008) - 10</td>
<td>81</td>
<td>675.771</td>
<td>7.1E-04</td>
</tr>
<tr>
<td>Insignificant Activities: Space heaters, process heaters</td>
<td>10</td>
<td>83.429</td>
<td>8.8E-05</td>
</tr>
</tbody>
</table>

**HAPs - Metals**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Lead</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Manganese</th>
<th>Nickel</th>
<th>Total HAPs (Organics + Metals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>5.0E-04</td>
<td>1.1E-03</td>
<td>1.4E-03</td>
<td>3.8E-04</td>
<td>2.1E-03</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emissions Unit</th>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Potential Throughput (MMCF/yr)</th>
<th>Potential Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity:</td>
<td>50.6</td>
<td>422.149</td>
<td>1.1E-04</td>
</tr>
<tr>
<td>MOD 1 - MOD10: Natural gas fired air supply houses - each contain two 12.6 MMBtu/hr burners</td>
<td>252</td>
<td>2102.400</td>
<td>5.3E-04</td>
</tr>
<tr>
<td>Thermal Incinerators for ELPO Dipping System (006)</td>
<td>50</td>
<td>417.143</td>
<td>1.0E-04</td>
</tr>
<tr>
<td>RTO for Primer Surfacer System (010)</td>
<td>16</td>
<td>133.486</td>
<td>3.3E-05</td>
</tr>
<tr>
<td>Catalytic oxidizers for Topcoat system (008) - 10</td>
<td>81</td>
<td>675.771</td>
<td>1.7E-04</td>
</tr>
<tr>
<td>Insignificant Activities: Space heaters, process heaters</td>
<td>10</td>
<td>83.429</td>
<td>2.1E-05</td>
</tr>
</tbody>
</table>

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

### Methodology

All emission factors are based on normal firing.

- **MMBtu = 1,000,000 Btu**
- **MMCF = 1,000,000 Cubic Feet of Gas**
- **Heating Value of Natural Gas = 1050 MMBtu/MMCF**
- **Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) \* (8,760 hrs/yr) \* (1 MMCF/1,050 MMBtu)**

**Emission Factors for NOx:** Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.**

**Insignificant Activities:**

- Space heaters, process heaters, or boilers with heat input capacities ≤ 10 MMBtu/hr
- Catalytic oxidizers with combined heat input capacity:
  - MOD 1 - MOD10: Natural gas fired air supply houses - each contain two 12.6 MMBtu/hr burners
  - Thermal Incinerators for ELPO Dipping System (006)
  - RTO for Primer Surfacer System (010)
  - Catalytic oxidizers for Topcoat system (008) - 10
  - Insignificant Activities: Space heaters, process heaters, or boilers with heat input capacities ≤ 10 MMBtu/hr

**Greenhouse Gas Emissions (tons/year):**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CO2</th>
<th>CH4</th>
<th>N2O</th>
<th>Subtotal</th>
<th>CO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>120,000</td>
<td>2.3</td>
<td>2.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Greenhouse Gas Emissions**
  - **CO2**
  - **CH4**
  - **N2O**
  - **Subtotal**
  - **CO2e**
### Criteria Pollutant Emissions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>CAS</th>
<th>Molecular Weight (lb/mole)</th>
<th>Default Concentration (ppmv)</th>
<th>Uncontrolled Emissions Rate (lb/MMCF)</th>
<th>Uncontrolled HAPs Emissions (Entering the Boiler) (tons/yr)</th>
<th>Controlled Emissions (Exiting the Boiler) (PTE) (tons/yr)</th>
<th>Controlled Emissions (Exiting the Boiler) (PTE) (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>71-66-3</td>
<td>133.41</td>
<td>0.48</td>
<td>0.16609</td>
<td>0.03117</td>
<td>0.03117</td>
<td>0.03117</td>
</tr>
<tr>
<td>1,1,2,2-Tetrachloroethane</td>
<td>79-34-5</td>
<td>167.85</td>
<td>1.11</td>
<td>0.48205</td>
<td>0.96522</td>
<td>0.96522</td>
<td>0.96522</td>
</tr>
<tr>
<td>1,1-Dichloroethane</td>
<td>75-09-2</td>
<td>89.17</td>
<td>2.35</td>
<td>0.02035</td>
<td>0.10947</td>
<td>0.10947</td>
<td>0.10947</td>
</tr>
<tr>
<td>1,1-Dichloroethane</td>
<td>75-35-4</td>
<td>96.94</td>
<td>6.02</td>
<td>0.05092</td>
<td>0.10404</td>
<td>0.10404</td>
<td>0.10404</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
<td>107-36-2</td>
<td>90.96</td>
<td>0.41</td>
<td>0.10524</td>
<td>0.21022</td>
<td>0.21022</td>
<td>0.21022</td>
</tr>
<tr>
<td>1,2-Dichloropropane</td>
<td>78-87-5</td>
<td>112.99</td>
<td>0.18</td>
<td>0.03275</td>
<td>0.15054</td>
<td>0.15054</td>
<td>0.15054</td>
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<tr>
<td>Acrylonitrile</td>
<td>107-13-1</td>
<td>59.06</td>
<td>6.33</td>
<td>0.57115</td>
<td>1.7399</td>
<td>1.7399</td>
<td>1.7399</td>
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<tr>
<td>Acetone</td>
<td>67-63-0</td>
<td>75.11</td>
<td>1.81</td>
<td>0.36836</td>
<td>0.7722</td>
<td>0.7722</td>
<td>0.7722</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>75-15-0</td>
<td>76.13</td>
<td>0.58</td>
<td>0.11443</td>
<td>0.2287</td>
<td>0.2287</td>
<td>0.2287</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>75-22-5</td>
<td>152.84</td>
<td>0.024</td>
<td>0.00160</td>
<td>0.0032</td>
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<td>0.0032</td>
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<tr>
<td>Carbon tetrachloride</td>
<td>75-01-4</td>
<td>60.07</td>
<td>0.04</td>
<td>0.00763</td>
<td>0.0152</td>
<td>0.0152</td>
<td>0.0152</td>
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<tr>
<td>Chlorobenzene</td>
<td>108-67-7</td>
<td>112.56</td>
<td>0.25</td>
<td>0.07293</td>
<td>0.1458</td>
<td>0.1458</td>
<td>0.1458</td>
</tr>
<tr>
<td>Chloroform</td>
<td>75-03-3</td>
<td>84.36</td>
<td>1.35</td>
<td>0.02019</td>
<td>0.0417</td>
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<tr>
<td>Chloroform</td>
<td>75-62-3</td>
<td>119.39</td>
<td>0.03</td>
<td>0.00292</td>
<td>0.0186</td>
<td>0.0186</td>
<td>0.0186</td>
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<tr>
<td>Dichlorobenzene</td>
<td>109-88-4</td>
<td>147.23</td>
<td>0.21</td>
<td>0.06007</td>
<td>0.1992</td>
<td>0.1992</td>
<td>0.1992</td>
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<tr>
<td>Dicyanogen</td>
<td>106-41-6</td>
<td>186.16</td>
<td>4.61</td>
<td>1.05936</td>
<td>2.5335</td>
<td>2.5335</td>
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<tr>
<td>Formaldehyde</td>
<td>50000</td>
<td>30.3, 4.88×10⁻³, 0.38101</td>
<td>0.7620</td>
<td>0.2517</td>
<td>0.0178</td>
<td>0.0178</td>
<td>0.0178</td>
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<tr>
<td>Formic acid</td>
<td>64-18-3</td>
<td>65.07</td>
<td>6.97</td>
<td>1.46587</td>
<td>2.9332</td>
<td>2.9332</td>
<td>2.9332</td>
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<tr>
<td>Hydrogen Chloride</td>
<td>76-07-1</td>
<td>36.5</td>
<td>42.00</td>
<td>3.26171</td>
<td>7.9917</td>
<td>7.9917</td>
<td>7.9917</td>
</tr>
<tr>
<td>Mercury</td>
<td>14549-61-6</td>
<td>200.61</td>
<td>0.000292</td>
<td>0.00015</td>
<td>0.0009</td>
<td>0.0009</td>
<td>0.0009</td>
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<tr>
<td>Methyl Isobutyl ketone</td>
<td>108-10-1</td>
<td>100.16</td>
<td>1.89</td>
<td>0.48580</td>
<td>0.9703</td>
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<tr>
<td>Methyl Chloride</td>
<td>75-29-2</td>
<td>68.94</td>
<td>14.3</td>
<td>3.15042</td>
<td>6.2923</td>
<td>6.2923</td>
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<tr>
<td>Tetrachloroethylene</td>
<td>127-18-4</td>
<td>185.83</td>
<td>3.73</td>
<td>1.60434</td>
<td>3.2084</td>
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<td>3.2084</td>
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<tr>
<td>Trichloroethylene</td>
<td>79-51-6</td>
<td>131.2</td>
<td>2.90</td>
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<td>Toluene</td>
<td>108-88-3</td>
<td>92.13</td>
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<td>0.39713</td>
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<td>Toluene</td>
<td>78-92-5</td>
<td>82.15</td>
<td>7.34</td>
<td>1.18987</td>
<td>2.3765</td>
<td>2.3765</td>
<td>2.3765</td>
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<tr>
<td>Acrolein</td>
<td>1330-20-7</td>
<td>106.16</td>
<td>12.1</td>
<td>0.33174</td>
<td>6.8544</td>
<td>6.8544</td>
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<tr>
<td>Hydrogen Sulfide</td>
<td>7783-06-4</td>
<td>34.08</td>
<td>35.5</td>
<td>3.13799</td>
<td>6.2675</td>
<td>6.2675</td>
<td>6.2675</td>
</tr>
<tr>
<td>Methyl Mercaptan</td>
<td>74-93-1</td>
<td>48.11</td>
<td>2.45</td>
<td>0.07101</td>
<td>0.1426</td>
<td>0.1426</td>
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</tr>
<tr>
<td>Dimethyl Sulfide</td>
<td>75-18-3</td>
<td>82.13</td>
<td>7.82</td>
<td>1.20016</td>
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<td>2.5169</td>
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<tr>
<td>TRS</td>
<td>15.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GHG Values:**
- CO2: Carbon dioxide equivalent (ton/yr)
- GHG: Global warming potential (ton/yr)
- WWP: Water vapor potential (ton/yr)

### Methodology

**Criteria Pollutant:**
- Potential Emissions (tons/yr) = Flow Rate (MMCF/hr) * Emission Factor (lb/MMCF) * (1 ton / 2000 lb)
- Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) * Boiler Efficiency (%)

**GHGs:**
- GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr) + CO2e (ton/yr)

**Where:**
- CO2e = carbon dioxide equivalent (ton/yr)
- GHG = mass emission rate of each greenhouse gas (ton/yr)
- GWPs = Global warming potential for each greenhouse gas
- n = number of greenhouse gases emitted
### GM Fort Wayne Assembly - LFG Generator Project

#### Engine Information

<table>
<thead>
<tr>
<th>Each Unit</th>
<th>Total (all 4 Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genset Power, BHP</td>
<td>2242</td>
</tr>
<tr>
<td>Number of Engines</td>
<td>4</td>
</tr>
<tr>
<td>Operating time (hours/yr)</td>
<td>8760</td>
</tr>
<tr>
<td>Fuel Consumption (Btu/bhp-hr)</td>
<td>6511</td>
</tr>
<tr>
<td>LFG Heat Value (Btu/ft³)</td>
<td>453.8</td>
</tr>
<tr>
<td>LFG flow rate (MMft³/yr)</td>
<td>255.8</td>
</tr>
<tr>
<td>LFG flow rate (ft³/hour)</td>
<td>29201</td>
</tr>
<tr>
<td>LFG flow rate (ft³/min)</td>
<td>486.68</td>
</tr>
</tbody>
</table>

#### Emission Factors

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor</th>
<th>Units</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>0.6</td>
<td>g/bhp-hr</td>
<td>Manufacturer Data</td>
</tr>
<tr>
<td>CO</td>
<td>4.22</td>
<td>g/bhp-hr</td>
<td>Manufacturer Data</td>
</tr>
<tr>
<td>VOC</td>
<td>0.56</td>
<td>g/bhp-hr</td>
<td>Manufacturer Data</td>
</tr>
<tr>
<td>*PM (condensable)</td>
<td>0.044</td>
<td>lb/MMBtu</td>
<td></td>
</tr>
<tr>
<td>*PM10 (filterable)</td>
<td>0.044</td>
<td>lb/MMBtu</td>
<td>Stack test data - source supplied</td>
</tr>
<tr>
<td>*PM2.5 (filterable)</td>
<td>0.044</td>
<td>lb/MMBtu</td>
<td>Stack test data - source supplied</td>
</tr>
<tr>
<td>SO2</td>
<td>250.00</td>
<td>ppm</td>
<td>Stack test data - source supplied</td>
</tr>
</tbody>
</table>

* PM is filterable only  
**PM10 is filterable only  
***PM2.5 is condensable only  

#### Criteria Pollutant Emissions from Engine Generators

<table>
<thead>
<tr>
<th>Emission Units / Process Description</th>
<th>PM*</th>
<th>PM10**</th>
<th>PM2.5***</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four (4) LFG 4-stroke Lean Burn Engines - identified as Gen 1-Gen 4 (2242 HP each) (lb/hr)</td>
<td>2.569</td>
<td>2.569</td>
<td>2.569</td>
<td>4.922</td>
<td>11.86</td>
<td>11.07</td>
<td>83.43</td>
</tr>
<tr>
<td>Four (4) LFG 4-stroke Lean Burn Engines - identified as Gen 1-Gen 4 (2242 HP each) (Tons/yr)</td>
<td>11.25</td>
<td>11.25</td>
<td>11.25</td>
<td>21.6</td>
<td>51.96</td>
<td>48.49</td>
<td>365.44</td>
</tr>
</tbody>
</table>

* PM is filterable only  
**PM10 is filterable only  
***PM2.5 is condensable only

**Methodology**

PTE PM, PM10, PM2.5 (lb/hr) = EF (lb/MMBtu) x Total Genset Power (Bhp) x Total Fuel Consumption (Btu/Bhp-hr) / 1,000,000  
PTE NOx, VOC, CO (lb/hr) = EF (g/bhp-hr) x Total Genset Power (Bhp) x Total Fuel Consumption (Btu/Bhp-hr) / 1,000,000  
SO2 (tons/year) = Flow Rate (ft3/min) x Emission Factor (ppmv) / 1,000,000 / 1 atm / Gas Constant (0.7302 atm-cf/lb mole-R) / Temp (60F+ 460) x Mole weight (lbs/lb mole) x 60 min/hour x 8760 hours/year x 1 ton/2000 lbs  
PTE NOx, VOC, CO (ton/yr) = EF (g/bhp-hr) x Total Genset Power (Bhp) x conversion factor (grams/lb)  
PTE NOx, VOC, CO (ton/yr) = NOx, VOC, CO (lb/hr) x 8760 (hrs/yr) x 1/2000 (tons/lbs)
## Emission Calculations

### LFG Combustion - Hazardous Air Pollutant Emissions

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

### LFG Flow Rate (MMBtu/yr)

<table>
<thead>
<tr>
<th>CAS#</th>
<th>HAP</th>
<th>MW</th>
<th>ppmv</th>
<th>Emission Factor* (lb/MMscf)</th>
<th>Emissions (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>71556</td>
<td>1,1,1-Trichloroethane (methyl)</td>
<td>133.41</td>
<td>0.48</td>
<td>0.005</td>
<td>2.002</td>
</tr>
<tr>
<td>75345</td>
<td>1,1,2,2-Tetrachloroethane</td>
<td>167.85</td>
<td>1.11</td>
<td>0.014</td>
<td>0.007</td>
</tr>
<tr>
<td>75343</td>
<td>Dichloroethane (ethylene)</td>
<td>98.97</td>
<td>2.35</td>
<td>0.017</td>
<td>0.009</td>
</tr>
<tr>
<td>75354</td>
<td>Chloroform</td>
<td>96.94</td>
<td>0.2</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>107062</td>
<td>1,2-Dichloropropane</td>
<td>98.96</td>
<td>0.41</td>
<td>0.003</td>
<td>0.002</td>
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<tr>
<td>78875</td>
<td>(propylene dichloride)</td>
<td>112.99</td>
<td>0.18</td>
<td>0.002</td>
<td>0.001</td>
</tr>
<tr>
<td>107131</td>
<td>Acrylonitrile</td>
<td>53.06</td>
<td>6.33</td>
<td>0.025</td>
<td>0.013</td>
</tr>
<tr>
<td>71432</td>
<td>Benzene</td>
<td>78.11</td>
<td>1.91</td>
<td>0.011</td>
<td>0.006</td>
</tr>
<tr>
<td>75150</td>
<td>Carbon disulfide</td>
<td>76.13</td>
<td>0.58</td>
<td>0.003</td>
<td>0.002</td>
</tr>
<tr>
<td>56235</td>
<td>Carbon tetrachloride</td>
<td>153.84</td>
<td>0.004</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>46358</td>
<td>Carboxyl sulfide</td>
<td>60.67</td>
<td>0.49</td>
<td>0.002</td>
<td>0.001</td>
</tr>
<tr>
<td>108907</td>
<td>Chlorobenzene</td>
<td>112.56</td>
<td>0.25</td>
<td>0.002</td>
<td>0.001</td>
</tr>
<tr>
<td>75093</td>
<td>Chloroethylene (ethyl chloride)</td>
<td>119.39</td>
<td>0.03</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>106467</td>
<td>Dichlorobenzene</td>
<td>147</td>
<td>0.21</td>
<td>0.002</td>
<td>0.001</td>
</tr>
<tr>
<td>75092</td>
<td>Dichloromethane (methylene)</td>
<td>84.94</td>
<td>14.3</td>
<td>0.090</td>
<td>0.046</td>
</tr>
<tr>
<td>100414</td>
<td>Ethylbenzene</td>
<td>106.16</td>
<td>4.61</td>
<td>0.036</td>
<td>0.018</td>
</tr>
<tr>
<td>106934</td>
<td>Ethylene dibromide</td>
<td>187.88</td>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>110543</td>
<td>Hexane</td>
<td>86.18</td>
<td>6.57</td>
<td>0.042</td>
<td>0.021</td>
</tr>
<tr>
<td>0</td>
<td>Mercury (total)</td>
<td>200.61</td>
<td>0.000292</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>108101</td>
<td>Methyl isobutyl ketone</td>
<td>100.16</td>
<td>1.87</td>
<td>0.014</td>
<td>0.007</td>
</tr>
<tr>
<td>127184</td>
<td>Tetrachloroethylene</td>
<td>165.83</td>
<td>3.73</td>
<td>0.046</td>
<td>0.023</td>
</tr>
<tr>
<td>108883</td>
<td>Toluene</td>
<td>92.13</td>
<td>39.3</td>
<td>0.267</td>
<td>0.137</td>
</tr>
<tr>
<td>78016</td>
<td>Trichloroethylene</td>
<td>131.4</td>
<td>2.82</td>
<td>0.027</td>
<td>0.014</td>
</tr>
<tr>
<td>75014</td>
<td>Vinyl chloride</td>
<td>62.5</td>
<td>7.34</td>
<td>0.034</td>
<td>0.017</td>
</tr>
<tr>
<td>1330207</td>
<td>Xylenes</td>
<td>106.16</td>
<td>12.1</td>
<td>0.095</td>
<td>0.048</td>
</tr>
</tbody>
</table>

**Note:** Tons/yr HAP 36.72

*Emission Factors for HAPs are from AP-42 2.4 Municipal Solid Waste Landfills Table 2.4-1

**Vendor Emission Factor**

### Landfill Gas Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (Kg/MMBtu)</th>
<th>PTE (TPY)</th>
<th>GWP</th>
<th>Emissions (TPY CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>52.07</td>
<td>29,449</td>
<td>1</td>
<td>29,449</td>
</tr>
</tbody>
</table>

**Total** 29,449

**GHG as CO2e**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (Kg/MMBtu)</th>
<th>PTE (TPY)</th>
<th>GWP</th>
<th>Emissions (TPY CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH4</td>
<td>3.20E-03</td>
<td>1.8</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>N2O</td>
<td>6.30E-04</td>
<td>0.4</td>
<td>2.98</td>
<td>110</td>
</tr>
</tbody>
</table>

**Total** 148

**Total** 29,598

**Methodology:**

- CO2 Emission Factor from 40 CFR 98 Subpart C Table C-1.
- CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
- Gas Flow Rate (scfm) = Potential Fuel Usage (MMBtu/yr) / Landfill Gas (50%CH4 / 50% CO2) (MMBtu/scf) * 8760 (hrs/yr) * 60 (min/hr)
- CO2 (tons/yr) = Potential Emission (ton/yr) x GWP

**Landfill Gas Flow Rate:** 1347 scfm

**CO2 Emission Factor:** 8968

**CO2 GWP:** 6511

**Potential Fuel Usage:** 511502 MMBtu/yr

**Landfill Gas (50%CH4 / 50% CO2):** 0.0000525 (MMBtu/scf)

**CO2 (tons/yr) = Potential Emission (ton/yr) x GWP**
ELPO Dipping System

<table>
<thead>
<tr>
<th>Process/Material</th>
<th>V_c (lb VOC/gal coating, less water)</th>
<th>S_c (gal solids/gal coating)</th>
<th>A_v (ft³/vehicle)</th>
<th>T_r (mil)</th>
<th>e_r (fraction of total coating solids used that remains on coated parts)</th>
<th>E_v (lb VOC/vehicle)</th>
<th>Maximum Production Rate (gal/unit)</th>
<th>PTE VOC (lb/hr)</th>
<th>PTE VOC (ton/yr)</th>
<th>Thermal Incinerator Overall Control Efficiency</th>
<th>Controlled PTE VOC (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELPO</td>
<td>5.141</td>
<td>0.9068</td>
<td>1270</td>
<td>1.70</td>
<td>1.0</td>
<td>1.10</td>
<td>74.000</td>
<td>81.38</td>
<td>356.4</td>
<td>0.57</td>
<td>153.27</td>
</tr>
</tbody>
</table>

**Methodology**

V_C = VOC content of coating as applied, less water (lb VOC/gal coating, less water) - value provided by Permittee
S_c = Solids in coating as applied (gal solids/gal coating) - value provided by Permittee
A_v = Area coated per vehicle (ft²/vehicle) - value provided by Permittee
T_r = Thickness of the dry coating film (mil) - value provided by Permittee
e_r = Transfer efficiency fraction (fraction of total coating solids used that remains on coated parts) - value provided by Permittee
E_v = Emission Factor for VOC (lb VOC/vehicle)

For AP-42, Chapter 4, Section 4.2.2.8, Automobile and Light Duty Truck Surface Coating Operations (8/82), the VOC emission factor may be determined by the equation below:

\[ E_v = A_v \cdot e_r \cdot S_c \cdot T_r \cdot V_c \]

Potential VOC (lb/hr) = E_v (lb VOC/vehicle) * Production Rate (vehicles/hr)
Potential VOC (ton/yr) = Potential VOC (lb/hr) * (8760 hr/yr) * (1 ton/2000 lb)
Thermal Incinerator Overall Control Efficiency = Capture Efficiency (60%) * Destruction Efficiency (95%) - values submitted by Permittee
Controlled PTE VOC (ton/yr) = PTE VOC (ton/yr) * (1 - Capture and Destruction Efficiency)

**Primer and Top Coat Systems**

<table>
<thead>
<tr>
<th>Process/Material</th>
<th>Density (lb/gal)</th>
<th>Weight % Volatile (H₂O &amp; Organics)</th>
<th>Gal of Mat. (gal/unit)</th>
<th>Maximum Production Rate (unit/hour)</th>
<th>Pounds VOC per gallon of coating</th>
<th>PTE VOC (lb/hr)</th>
<th>PTE VOC (ton/yr)</th>
<th>Transfer Efficiency</th>
<th>VOC/PM Control</th>
<th>Overall VOC Control Efficiency</th>
<th>Controlled PTE VOC (ton/yr)</th>
<th>PM Control Efficiency</th>
<th>Controlled PTE PM (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer</td>
<td>9.70</td>
<td>28.00%</td>
<td>0.55000</td>
<td>74,000</td>
<td>4.00</td>
<td>162.80</td>
<td>713.06</td>
<td>224.10</td>
<td>82%</td>
<td>90.50%</td>
<td>67.40</td>
<td>95%</td>
<td>11.21</td>
</tr>
<tr>
<td>Clear Coat</td>
<td>7.7</td>
<td>56.20%</td>
<td>1.79000</td>
<td>74,000</td>
<td>4.30</td>
<td>569.58</td>
<td>2494.75</td>
<td>759.15</td>
<td>61%</td>
<td>1471.50%</td>
<td>2155.47</td>
<td>95%</td>
<td>37.96</td>
</tr>
</tbody>
</table>

**Note:** Primer line (010) was reconfigured under permit action no. 003-29630-00036, issued October 7, 2010, using Actual-to-Projected-Actual (ATPA) analysis.

**METHODOLOGY**

The following values were provided by the Permittee: density, weight% volatile, gal of mat., maximum production rate, pounds of VOC per gallon of coating, and transfer efficiency.

PTE VOC (lb/hr) = Maximum Production Rate (unit/hour) * Gal of Mat. (gal/unit) * (lb VOC/gal coating)
PTE VOC (ton/yr) = PTE VOC (lb/hr) * (8760 hr/yr) * (1 ton/2000 lb)

Overall VOC Control Efficiency - value provided by Permittee

**Underbody Robotic Sealer Operation**

<table>
<thead>
<tr>
<th>Process/Material</th>
<th>Gal of Mat. (gal/unit)</th>
<th>Maximum Production Rate (unit/hour)</th>
<th>Pounds VOC per gallon of coating</th>
<th>PTE VOC (lb/hr)</th>
<th>PTE VOC (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular Cab</td>
<td>0.04000</td>
<td>78.000</td>
<td>0.30</td>
<td>0.94</td>
<td>4.10</td>
</tr>
<tr>
<td>Extended Cab</td>
<td>0.08000</td>
<td>78.000</td>
<td>0.30</td>
<td>1.40</td>
<td>6.15</td>
</tr>
</tbody>
</table>

**Worst Case**

8.15

**METHODOLOGY**

The following values were provided by the Permittee: Gal of Mat. and Maximum Production Rate

The Pounds of VOC per gallon of coating was determined based off of EPA Method 24 testing by the coating manufacturer.

PTE VOC (lb/hr) = Maximum Production Rate (unit/hour) * Gal of Mat. (gal/unit) * (lb VOC/gal coating)
PTE VOC (ton/yr) = PTE VOC (lb/hr) * (8760 hr/yr) * (1 ton/2000 lb)

Note: This is a sealer with a high viscosity. The material does not atomize and there is no overspray/particulate generated.
### Appendix A: Emission Calculations

#### Emergency Diesel-Fired Engines

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

<table>
<thead>
<tr>
<th>Emission Factor in lb/hp-hr</th>
<th>Power Output (hp)</th>
<th>Potential to Emit (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PM</strong></td>
<td>0.0022</td>
<td></td>
</tr>
<tr>
<td><strong>PM$_{10}$</strong></td>
<td>0.0022</td>
<td></td>
</tr>
<tr>
<td><strong>SO$_2$</strong></td>
<td>0.00205</td>
<td></td>
</tr>
<tr>
<td><strong>NO$_x$</strong></td>
<td>0.031</td>
<td></td>
</tr>
<tr>
<td><strong>VOC</strong></td>
<td>0.002514</td>
<td></td>
</tr>
<tr>
<td><strong>CO</strong></td>
<td>0.00688</td>
<td></td>
</tr>
</tbody>
</table>

#### Methodology

- Emission Factors are from AP 42, Table 3.3-1 for Uncontrolled Diesel Industrial Engines (SCC #2-02-001-02, 2-03-001-01)
- PM emissions are assumed to equal PM$_{10}$ emissions.
- Emergency Equipment have an assumed usage of 500 hours per year

\[
PTE \text{ (ton/yr)} = \text{Power Output (hp)} \times \text{Emission Factor (lb/hp-hr)} \times (500 \text{ hr/yr}) \times (1 \text{ ton/2000 lb})
\]

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMBtu</th>
<th>Power Output (hp)</th>
<th>Potential to Emit (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>9.3E-04</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>4.1E-04</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>Xylenes</td>
<td>2.9E-04</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>3.9E-05</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>1.2E-03</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>7.7E-04</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>Acrolein</td>
<td>9.3E-05</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>Naphthalene</td>
<td>8.5E-05</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Methodology

- Emission Factors are from AP 42, Tables3.3-2 for Uncontrolled Diesel Engines (SCC #2-02-001-02, 2-03-001-01)
- Emergency Equipment have an assumed usage of 500 hours per year

\[
PTE \text{ (ton/yr)} = \text{Power Output (hp)} \times \text{Emission Factor (lb/MMBtu)} \times (2.5425 \times 10^3 \text{ Btu/hp-hr}) \times (1 \text{ MMBtu/10}^6 \text{ Btu}) \times (500 \text{ hr/yr}) \times (1 \text{ ton/2000 lb})
\]

#### Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/hp-hr</th>
<th>Power Output (hp)</th>
<th>Potential to Emit (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO$_2$</td>
<td>1.1600</td>
<td>1600</td>
<td>8.16E+03</td>
</tr>
<tr>
<td>CH$_4$</td>
<td>6.35E-05</td>
<td>1600</td>
<td>8.16E+03</td>
</tr>
<tr>
<td>N$_2$O</td>
<td>9.30E-06</td>
<td>1600</td>
<td>8.16E+03</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO2e</td>
<td></td>
<td></td>
<td>8.16E+03</td>
</tr>
</tbody>
</table>

#### Greenhouse Gas (CO2e) Methodology

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

\[
CO2e \text{ (tons/yr)} = \text{CO}_2 \text{ Potential Emission ton/yr} \times \text{CO2 GWP (25)} + \text{CH}_4 \text{ Potential Emission ton/yr} \times \text{CH4 GWP (25)} + \text{N}_2\text{O Potential Emission ton/yr} \times \text{N2O GWP (298)}.
\]
### Maximum Vehicle Capacity/hr: 74

<table>
<thead>
<tr>
<th></th>
<th>VOC Content (lb/gal)</th>
<th>Maximum Use</th>
<th>Units of Maximum Use</th>
<th>PTE VOC (ton/yr)</th>
<th>Transfer Efficiency</th>
<th>PM/PM10 Emission Factor (lb solids/gallon)</th>
<th>Uncontrolled PTE PM/PM10 (ton/yr)</th>
<th>Controlled PTE PM/PM10 (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misc sealers / adhesives / additives / solvents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc. Sealers/Adhesives/Additives (009)</td>
<td>1</td>
<td>1.4</td>
<td>gal/vehicle</td>
<td>454</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Solvents (009)</td>
<td>6.5</td>
<td>11046</td>
<td>gal/month</td>
<td>431</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Repair Operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Repair Operation (012)</td>
<td>3.8</td>
<td>740</td>
<td>gal/month</td>
<td>17</td>
<td>50%</td>
<td>3.36</td>
<td>7.45</td>
<td>0.37</td>
</tr>
<tr>
<td>Maintenance Paint</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance Paint Operation (013)</td>
<td>6.5</td>
<td>280</td>
<td>gal/month</td>
<td>11</td>
<td>50%</td>
<td>3.36</td>
<td>2.82</td>
<td></td>
</tr>
</tbody>
</table>

**Dry Filters** 95%

### Methodology

- VOC Content and Maximum Use for Misc. Sealers/Adhesives/Additives, Misc. Solvents, Final Repair Operation, and Maintenance Paint Operation provided by the Permittee.
- PM/PM10 Emission Factor for Final Repair Operations and Maintenance Paint Operation is based on Topcoat density and % Solids.
- PTE VOC (ton/yr) = VOC Content (lb/gal) * Maximum Use (gal/vehicle) * Maximum Vehicle Capacity (vehicles/hr) * (8760 hr/yr) * (1 ton/2000 lb)
- or PTE VOC (ton/yr) = VOC Content (lb/gal) * Maximum Use (gal/month) * (12 month/yr) * (1 ton/2000 lb)
## Appendix A: Emission Calculations
### Gasoline Operations

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

### Gasoline Fill operation (014)

<table>
<thead>
<tr>
<th>Tank</th>
<th>Capacity (gal)</th>
<th>Maximum True Vapor Pressure (psia)</th>
<th>Maximum Tank Capacity (gal)</th>
<th>Maximum Throughput (gallon/day)</th>
<th>VOC Emission Factor (lb/1000 gal)</th>
<th>Total VOC Emission Factor (lb/1000 gal)</th>
<th>Max Wt% Benzene</th>
<th>Max Wt% Ethylbenzene</th>
<th>Max Wt% Xylene</th>
<th>Max Wt% Toluene</th>
<th>PTE VOC (ton/yr)</th>
<th>PTE Benzene (ton/yr)</th>
<th>PTE Ethylbenzene (ton/yr)</th>
<th>PTE Xylene (ton/yr)</th>
<th>PTE Toluene (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Tank 9</td>
<td>20000</td>
<td>6.34</td>
<td>370</td>
<td>4.26</td>
<td>2.0%</td>
<td>10.0%</td>
<td>5.0%</td>
<td>0.085</td>
<td>0.085</td>
<td>0.426</td>
<td>0.213</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Tank 10</td>
<td>20000</td>
<td>6.34</td>
<td>370</td>
<td>4.26</td>
<td>2.0%</td>
<td>10.0%</td>
<td>5.0%</td>
<td>0.085</td>
<td>0.085</td>
<td>0.426</td>
<td>0.213</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Refueling Spillage Losses</td>
<td>N/A</td>
<td>N/A</td>
<td>0.7</td>
<td>370</td>
<td>1.13</td>
<td>2.0%</td>
<td>10.0%</td>
<td>5.0%</td>
<td>0.023</td>
<td>0.113</td>
<td>0.057</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.193</td>
<td>0.965</td>
<td>0.483</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Methodology**

PTE VOC (ton/yr) for Storage Tanks is based on EPA TANKS calculations provided by the Permittee for working and standing losses.

VOC Emission Factors for Vehicle Refueling Spillage Losses is from AP-42, Table 5.2-7.

Wt% HAPs provided by the Permittee

PTE VOC (ton/yr) = \[\frac{\text{VOC Emission Factor (lb/1000 gal)}}{1000 \text{ gal}}} \times \text{Maximum Use (gal/hr)} \times \left(\frac{8760 \text{ hr/yr}}{2000 \text{ lb}}\right)

PTE HAP (ton/yr) = PTE VOC (ton/yr) \times \text{Wt% HAP}

### A.3(d) Gasoline Fuel Transfer and Dispensing Operation

<table>
<thead>
<tr>
<th>Tank</th>
<th>Capacity (gal)</th>
<th>Maximum True Vapor Pressure (psia)</th>
<th>Throughput (gallon/day)</th>
<th>VOC Emission Factor (lb/1000 gal)</th>
<th>Total Uncontrolled VOC Loss (ton/yr)</th>
<th>Max Wt% Benzene</th>
<th>Max Wt% Ethylbenzene</th>
<th>Max Wt% Xylene</th>
<th>Max Wt% Toluene</th>
<th>PTE Benzene (ton/yr)</th>
<th>PTE Ethylbenzene (ton/yr)</th>
<th>PTE Xylene (ton/yr)</th>
<th>PTE Toluene (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submerged Filling</td>
<td>10500</td>
<td>6.34</td>
<td>1300</td>
<td>7.3</td>
<td>1.73</td>
<td>2.0%</td>
<td>2.0%</td>
<td>10.0%</td>
<td>5.0%</td>
<td>0.035</td>
<td>0.035</td>
<td>0.173</td>
<td>0.087</td>
</tr>
<tr>
<td>Vehicle Refueling Displacement Loss</td>
<td>10500</td>
<td>6.34</td>
<td>1300</td>
<td>11</td>
<td>2.61</td>
<td>2.0%</td>
<td>2.0%</td>
<td>10.0%</td>
<td>5.0%</td>
<td>0.052</td>
<td>0.052</td>
<td>0.261</td>
<td>0.130</td>
</tr>
<tr>
<td>Vehicle Refueling Spillage Loss</td>
<td>10500</td>
<td>6.34</td>
<td>1300</td>
<td>0.7</td>
<td>0.17</td>
<td>2.0%</td>
<td>2.0%</td>
<td>10.0%</td>
<td>5.0%</td>
<td>0.003</td>
<td>0.003</td>
<td>0.017</td>
<td>0.008</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>4.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.09</td>
<td>0.09</td>
<td>0.45</td>
<td>0.23</td>
</tr>
</tbody>
</table>

**Methodology**

VOC Emission Factors for Submerged Filling, Vehicle Refueling Displacement Loss, and Vehicle Refueling Spillage Loss are from AP-42, Table 5.2-7.

PTE VOC (ton/yr) = \[\frac{\text{VOC Emission Factor (lb/1000 gal)}}{1000 \text{ gal}}} \times \text{Maximum Use (gal/hr)} \times \left(\frac{8760 \text{ hr/yr}}{2000 \text{ lb}}\right)

Wt% HAPs provided by the Permittee

PTE HAP (ton/yr) = PTE VOC (ton/yr) \times \text{Wt% HAP}
### A.3(b) & A.3(u)(10) Storage Tanks

<table>
<thead>
<tr>
<th>Tank Capacity (gal)</th>
<th>Maximum True Vapor Pressure (psia)</th>
<th>PTE VOC (ton/yr)</th>
<th>Max Wt% Ethylbenzene</th>
<th>Max Wt% Xylene</th>
<th>Max Wt% MIBK</th>
<th>PTE Ethylbenzene (ton/yr)</th>
<th>PTE Xylene (ton/yr)</th>
<th>PTE MIBK (ton/yr)</th>
<th>PTE Methanol (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Solvent/Thinner</td>
<td>20000</td>
<td>1.58</td>
<td>0.421</td>
<td>10.0%</td>
<td>40.0%</td>
<td>58.6%</td>
<td>0.04</td>
<td>0.17</td>
<td>0.25</td>
</tr>
<tr>
<td>2 - Solvent/Thinner</td>
<td>20000</td>
<td>1.58</td>
<td>0.421</td>
<td>10.0%</td>
<td>40.0%</td>
<td>58.6%</td>
<td>0.04</td>
<td>0.17</td>
<td>0.25</td>
</tr>
<tr>
<td>3 - Windshield Wiper Fluid</td>
<td>10000</td>
<td>1.27</td>
<td>0.109</td>
<td></td>
<td></td>
<td>99.0%</td>
<td></td>
<td></td>
<td>0.11</td>
</tr>
<tr>
<td>6 - Power Steering Fluid</td>
<td>16000</td>
<td>0.004</td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 - Automatic Transmission Fluid</td>
<td>16000</td>
<td>0.000186</td>
<td>0.0001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 - Reclaimed Solvent</td>
<td>20000</td>
<td>1.58</td>
<td>0.421</td>
<td>10.0%</td>
<td>40.0%</td>
<td>58.6%</td>
<td>0.04</td>
<td>0.17</td>
<td>0.25</td>
</tr>
<tr>
<td>16 - Antifreeze Coolant</td>
<td>16000</td>
<td>0.00199</td>
<td>0.0011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 - Axle Lube</td>
<td>16000</td>
<td>0.0073</td>
<td>0.004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste Purge Solvent Tank</td>
<td>18900</td>
<td>1.58</td>
<td>0.421</td>
<td>10.0%</td>
<td>40.0%</td>
<td>58.6%</td>
<td>0.04</td>
<td>0.17</td>
<td>0.25</td>
</tr>
<tr>
<td>Waste Purge Solvent Tank</td>
<td>18900</td>
<td>1.58</td>
<td>0.421</td>
<td>10.0%</td>
<td>40.0%</td>
<td>58.6%</td>
<td>0.04</td>
<td>0.17</td>
<td>0.25</td>
</tr>
<tr>
<td>Total</td>
<td>2.22</td>
<td>0.2</td>
<td>0.8</td>
<td>1.2</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Methodology**

PTE VOC (ton/yr) is based on EPA TANKS calculations provided by the Permittee.
Missellaneous Emissions

Company Name: General Motors LLC Fort Wayne Assembly
Address City IN Zip: 12200 LaFayette Center Road, Roanoke, IN 46783
Part 70 Renewal No.: 003-41020-00036
Reviewer: Aida DeGuzman

A.3(a) Grinding and Machining Operations

<table>
<thead>
<tr>
<th>Grain Loading (gr/dscf)</th>
<th>Flow Rate (acfm)</th>
<th>PM/PM10 (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grinding and Machining Operations</td>
<td>0.03</td>
<td>4000</td>
</tr>
</tbody>
</table>

(small maintenance operations throughout the plant)

Methodology
PTE PM/PM10 (ton/yr) = Grain Loading (gr/dsf) * Airflow (acfm) * (60 min/hr) * (8760 hr/yr) * (1 lb/7000 gr) * (1 ton/2000 lb)

Other Insignificant Activities - Estimated PTE

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>PTE (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(e) VOC and HAP Storage Containers</td>
<td>1</td>
</tr>
<tr>
<td>(f) Brazing equipment, cutting torches, soldering equipment, welding equipment</td>
<td>1</td>
</tr>
<tr>
<td>(h) Treatment of wastewater</td>
<td>0.5</td>
</tr>
<tr>
<td>(i) Operations using aqueous solutions containing less than 1% VOC by weight, excluding HAPs</td>
<td>0.5</td>
</tr>
<tr>
<td>(j) Noncontact Cooling Tower Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>(k) Replacement or repair of ESPs, baghouse bags, and air filters</td>
<td>0.1</td>
</tr>
<tr>
<td>(l) Trimmers</td>
<td>0.5</td>
</tr>
<tr>
<td>(n) Equipment used to collect released material during malfunction, spills, etc.</td>
<td>0.5</td>
</tr>
<tr>
<td>(u)(2) Sulfuric Acid Tank</td>
<td>0.1</td>
</tr>
<tr>
<td>(u)(3) Grinding Operations</td>
<td>0.1</td>
</tr>
<tr>
<td>(u)(8) Spot sanding and painting</td>
<td>0.1</td>
</tr>
<tr>
<td>(u)(21) MIG Welding</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>1.9</td>
</tr>
</tbody>
</table>
## Appendix A: Emission Calculations

**Boiler 004 Limited PTE**

**MMBTU/HR >100**

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

### Natural Gas Combustion

<table>
<thead>
<tr>
<th>Emissions Unit</th>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Potential Throughput (MMCF/yr)</th>
<th>Potential to Emit (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler 004 - Only Natural Gas Combustion</td>
<td>228</td>
<td>1902.171</td>
<td>1.8 7.2 0.6 95.1 5.2 79.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM</th>
<th>PM10</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>0.6</td>
<td>100.0</td>
<td>5.5</td>
<td>84.0</td>
</tr>
</tbody>
</table>

The worst case scenario of emissions from Boiler 004 would either be from combusting natural gas alone.

### Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Scenario</th>
<th>PM</th>
<th>PM10</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>CO2</th>
<th>CH4</th>
<th>N2O</th>
<th>Subtotal</th>
<th>CO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1: 100% NG Combustion</td>
<td>1.81</td>
<td>7.23</td>
<td>0.57</td>
<td>95.11</td>
<td>5.23</td>
<td>79.89</td>
<td>22300.0</td>
<td>0.22</td>
<td>0.26</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Worst Case</td>
<td>1.81</td>
<td>7.23</td>
<td>0.57</td>
<td>95.11</td>
<td>5.23</td>
<td>79.89</td>
<td>22300.0</td>
<td>0.22</td>
<td>0.26</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emissions Unit</th>
<th>Heat Input Capacity (MMBtu/hr)</th>
<th>Potential Throughput (kgal/yr)</th>
<th>Potential to Emit (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler 004 - Alternative Operating Scenario</td>
<td>220</td>
<td>3200.000</td>
<td>35680.0</td>
</tr>
</tbody>
</table>
### Emission Calculations

#### Boiler 005 Limited PTE

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

#### Natural Gas Combustion

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>NOx Netting credit at the time CP003-2524 was issued</th>
<th>NOx Net Emissions (tons/year)</th>
<th>Natural Gas Usage Limit (MMCF/yr)</th>
<th>NOx Emissions Limit (lb/MMCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>1.9</td>
<td>65</td>
<td>1,902.2</td>
<td>100.0</td>
</tr>
<tr>
<td>PM10</td>
<td>7.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>84.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Methodology

- All emission factors are based on normal firing.
- MMBtu = 1,000,000 Btu
- MMCF = 1,000,000 Cubic Feet of Gas
- Potential Throughput (MMCF) = Heat Input Capacity (MBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
- Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/98)

#### Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMCF</th>
<th>CO2</th>
<th>CH4</th>
<th>N2O</th>
<th>Subtotal</th>
<th>CO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Unit</td>
<td>22300.0</td>
<td>0.22</td>
<td>0.26</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Heat Input Capacity (MMBtu/hr)</td>
<td>Potential Throughput (MMCF/yr)</td>
<td>Potential to Emit (tons/yr)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiler 004 - Alternative Operating Scenario</td>
<td>220</td>
<td>1100.000</td>
<td>12265.0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>
## Natural Gas Combustion Only - Water and Space heaters (Excl Boilers)

### Heat Input Capacity | Potential Throughput | Emission Unit
--- | --- | ---
2.87 | 25.1 | MAU-1 NG Fired Heated Air Make-up Unit
2.87 | 25.1 | MAU-2
2.87 | 25.1 | MAU-3
2.87 | 25.1 | MAU-4
2.00 | 17.5 | MAU-5

**Note:**
- PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
- PM2.5 emission factor is filterable and condensable PM2.5 combined.
- NOx emission factors: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Emission Factors

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>100</td>
<td>5.5</td>
<td>84</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.11</td>
<td>0.45</td>
<td>0.45</td>
<td>0.04</td>
<td>5.90</td>
<td>0.32</td>
<td>4.96</td>
</tr>
</tbody>
</table>

### Methodology

All emission factors are based on normal firing.

- MMBlu = 1,000,000 Btu
- MMCF = 1,000,000 Cubic Feet of Gas
- Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
- Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBlu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBlu
- Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

### HAPs - Organics

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Dichlorobenzene</th>
<th>Formaldehyde</th>
<th>Hexane</th>
<th>Toluene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>2.1E-03</td>
<td>1.2E-03</td>
<td>7.5E-02</td>
<td>1.8E+00</td>
<td>3.4E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>1.2E-04</td>
<td>7.1E-05</td>
<td>4.4E-03</td>
<td>0.11</td>
<td>2.0E-04</td>
</tr>
</tbody>
</table>

### HAPs - Metals

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Lead</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Manganese</th>
<th>Nickel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>5.0E-04</td>
<td>1.1E-03</td>
<td>1.4E-03</td>
<td>3.8E-04</td>
<td>2.1E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>3.0E-05</td>
<td>6.5E-05</td>
<td>8.3E-05</td>
<td>2.2E-05</td>
<td>1.2E-04</td>
</tr>
</tbody>
</table>

**TOTAL** 0.11

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.
### Large Reciprocating Internal Combustion Engines - Diesel Fuel
#### Output Rating (>600 HP)
##### Maximum Input Rate (>4.2 MMBtu/hr)

**Company Name:** General Motors LLC Fort Wayne Assembly  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Renewal No.:** 003-41020-00036  
**Reviewer:** Aida DeGuzman

<table>
<thead>
<tr>
<th>HP Rating</th>
<th>Make</th>
<th>Model</th>
<th>Constr Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>909</td>
<td>Generac</td>
<td>MD600</td>
<td>2018</td>
</tr>
<tr>
<td>909</td>
<td>Generac</td>
<td>MD600</td>
<td>2018</td>
</tr>
<tr>
<td>909</td>
<td>Generac</td>
<td>MD600</td>
<td>2018</td>
</tr>
<tr>
<td>909</td>
<td>Generac</td>
<td>MD600</td>
<td>2018</td>
</tr>
</tbody>
</table>

**Output Horsepower Rating (hp):** 3636.0  
**Maximum Hours Operated per Year:** 500  
**Potential Throughput (hp-hr/yr):** 1,818,000  
**Sulfur Content (S) of Fuel (% by weight):** 0.05

#### Pollutant Emission Calculations

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/hp-hr</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM*</td>
<td>7.00E-04</td>
<td>0.64</td>
</tr>
<tr>
<td>PM10*</td>
<td>4.01E-04</td>
<td>0.36</td>
</tr>
<tr>
<td>direct PM2.5*</td>
<td>4.01E-04</td>
<td>0.36</td>
</tr>
<tr>
<td>SO2</td>
<td>4.05E-04</td>
<td>0.37</td>
</tr>
<tr>
<td>NOx</td>
<td>1.30E-02</td>
<td>11.82</td>
</tr>
<tr>
<td>VOC</td>
<td>7.05E-04</td>
<td>0.64</td>
</tr>
<tr>
<td>CO</td>
<td>5.50E-03</td>
<td>5.00</td>
</tr>
</tbody>
</table>

*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).  
**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

##### Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/hp-hr****</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>5.43E-06</td>
<td>4.94E-03</td>
</tr>
<tr>
<td>Toluene</td>
<td>1.97E-06</td>
<td>1.79E-03</td>
</tr>
<tr>
<td>Xylene</td>
<td>1.35E-06</td>
<td>1.35E-03</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>5.52E-07</td>
<td>5.02E-04</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>1.76E-07</td>
<td>1.60E-04</td>
</tr>
<tr>
<td>Acrolein</td>
<td>5.52E-08</td>
<td>5.01E-05</td>
</tr>
<tr>
<td>Total PAH HAPs***</td>
<td>1.48E-06</td>
<td>1.35E-03</td>
</tr>
</tbody>
</table>

****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).  
***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

##### Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.  
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]  
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

<table>
<thead>
<tr>
<th>Potential Emission of Total HAPs (tons/yr)</th>
<th>1.00E-02</th>
</tr>
</thead>
</table>
Fugitive Dust Emissions - Paved Roads

Company Name: General Motors LLC Fort Wayne Assembly
Address City IN Zip: 12200 LaFayette Center Road, Roanoke, IN 46783
Part 70 Renewal No.: 003-41020-00036
Reviewer: Aida DeGuzman

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)

<table>
<thead>
<tr>
<th>Type</th>
<th>Dock Location</th>
<th>Maximum number of vehicles per day</th>
<th>Number of one-way trips per day per vehicle</th>
<th>Maximum trips per day (trip/day)</th>
<th>Maximum Weight Loaded (tons/trip)</th>
<th>Total Weight driven per day (ton/day)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Maximum one-way distance (miles/day)</th>
<th>Maximum one-way distance (miles/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van Trailers (Leaving plant full) (one-way trip)</td>
<td>North Dock (N)</td>
<td>250.00</td>
<td>1.00</td>
<td>250.00</td>
<td>40.00</td>
<td>10,000.00</td>
<td>1,500.00</td>
<td>0.28</td>
<td>71.02</td>
</tr>
<tr>
<td>Van Trailers (entering plant empty) (one-way trip)</td>
<td>North Dock (N)</td>
<td>250.00</td>
<td>1.00</td>
<td>250.00</td>
<td>10.00</td>
<td>2,500.00</td>
<td>1,500.00</td>
<td>0.28</td>
<td>71.02</td>
</tr>
<tr>
<td>Van Trailers (Leaving plant full) (one-way trip)</td>
<td>South Dock (S)</td>
<td>250.00</td>
<td>1.00</td>
<td>250.00</td>
<td>40.00</td>
<td>10,000.00</td>
<td>1,500.00</td>
<td>0.28</td>
<td>71.02</td>
</tr>
<tr>
<td>Van Trailers (entering plant empty) (one-way trip)</td>
<td>South Dock (S)</td>
<td>250.00</td>
<td>1.00</td>
<td>250.00</td>
<td>10.00</td>
<td>2,500.00</td>
<td>1,500.00</td>
<td>0.28</td>
<td>71.02</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>1,000.00</strong></td>
<td></td>
<td><strong>25,000.00</strong></td>
<td></td>
<td><strong>284.09</strong></td>
<td></td>
<td></td>
<td><strong>103,693.18</strong></td>
</tr>
</tbody>
</table>

Average Vehicle Weight Per Trip = 25.00 tons/trip
Average Miles Per Trip = 0.28 miles/trip

Unmitigated Emission Factor, \( E_f \) = \( [k \cdot (sL)^{0.91} \cdot (W)^{1.02}] \) (Equation 1 from AP-42 13.2.1)

where:
- \( k = 0.011 \)
- \( W = 25.00 \) tons
- \( sL = 0.6 \)

Mitigated Emission Factor, \( E_{ext} \) = \( E_f \cdot [1 - (p/4N)] \) (Equation 2 from AP-42 13.2.1)

where:
- \( p = 125.00 \) days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
- \( N = 365.00 \) days per year

<table>
<thead>
<tr>
<th>Process</th>
<th>Mitigated PTE of PM (tons/yr)</th>
<th>Mitigated PTE of PM (tons/yr)</th>
<th>Mitigated PTE of PM (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van Trailers (Leaving plant full) (one-way trip)</td>
<td>2.18</td>
<td>0.44</td>
<td>0.107</td>
</tr>
<tr>
<td>Van Trailers (entering plant empty) (one-way trip)</td>
<td>2.18</td>
<td>0.44</td>
<td>0.107</td>
</tr>
<tr>
<td>Van Trailers (Leaving plant full) (one-way trip)</td>
<td>2.18</td>
<td>0.44</td>
<td>0.107</td>
</tr>
<tr>
<td>Van Trailers (entering plant empty) (one-way trip)</td>
<td>2.18</td>
<td>0.44</td>
<td>0.107</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>8.73</strong></td>
<td><strong>1.75</strong></td>
<td><strong>0.429</strong></td>
</tr>
</tbody>
</table>

Methodology

- Total Weight driven per day (ton/day) = \( [\text{Maximum Weight Loaded (tons/trip)} \cdot \text{Maximum trips per day (trip/day)}] \)
- Maximum one-way miles (miles/day) = \( [\text{Maximum one-way distance (feet/trip)}] / 5280 \) ft/mile
- Average Vehicle Weight Per Trip (ton/trip) = \( \text{Average Vehicle Weight Per Trip (ton/trip)} \)
- Average Miles Per Trip (miles/day) = \( \text{Average Miles Per Trip (miles/trip)} \)
- Mitigated PTE (tons/yr) = \( \text{Mitigated PTE (tons/yr)} \)

Abbreviations

- PM = Particulate Matter
- PM10 = Particulate Matter (<10 um)
- PM2.5 = Particulate Matter (<2.5 um)
- PTE = Potential to Emit
## Diesel Storage Tanks

### Identification

<table>
<thead>
<tr>
<th>Tank Identifier</th>
<th>T1, T2, T3, T4</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>Roanoke</td>
</tr>
<tr>
<td>State</td>
<td>Indiana</td>
</tr>
<tr>
<td>Company</td>
<td>NorthPoint</td>
</tr>
</tbody>
</table>

### Tank Parameters

<table>
<thead>
<tr>
<th>Equivalent Diameter (ft)</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (gallons)</td>
<td>550</td>
</tr>
<tr>
<td>Turnovers</td>
<td>12</td>
</tr>
<tr>
<td>Net Throughput (gal/yr)</td>
<td>6,600.00</td>
</tr>
<tr>
<td>Is Tank Heated (y/n)</td>
<td>N</td>
</tr>
<tr>
<td>Is Tank Underground (y/n)</td>
<td>N</td>
</tr>
</tbody>
</table>

### Paint Characteristics

<table>
<thead>
<tr>
<th>Shell Color/Grade</th>
<th>Gray/Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum Settings (psig)</td>
<td>-0.03</td>
</tr>
<tr>
<td>Pressure Settings (psig)</td>
<td>0.03</td>
</tr>
</tbody>
</table>

### Meteorological Data used in Emissions Calculations

- Fort Wayne, Indiana (Avg Atmospheric Pressure = 14.31 psia)

### Emission Calculations

#### Part 70 Renewal

<table>
<thead>
<tr>
<th>Part 70 Renewal No.</th>
<th>003-41020-00036</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewer</td>
<td>Aida DeGuzman</td>
</tr>
</tbody>
</table>

#### Diesel Storage Tanks

<table>
<thead>
<tr>
<th>Company Name</th>
<th>General Motors LLC Fort Wayne Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address City IN Zip</td>
<td>12200 LaFayette Center Road, Roanoke, IN 46783</td>
</tr>
</tbody>
</table>

### Emissions Table

<table>
<thead>
<tr>
<th>Tank Identifier</th>
<th>City</th>
<th>State</th>
<th>Company</th>
<th>Working Loss</th>
<th>Breathing Loss</th>
<th>Total Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Roanoke</td>
<td>Indiana</td>
<td>NorthPoint</td>
<td>0.13</td>
<td>0.19</td>
<td>0.33</td>
</tr>
<tr>
<td>T2</td>
<td>Roanoke</td>
<td>Indiana</td>
<td>NorthPoint</td>
<td>0.13</td>
<td>0.19</td>
<td>0.33</td>
</tr>
<tr>
<td>T3</td>
<td>Roanoke</td>
<td>Indiana</td>
<td>NorthPoint</td>
<td>0.13</td>
<td>0.19</td>
<td>0.33</td>
</tr>
<tr>
<td>T4</td>
<td>Roanoke</td>
<td>Indiana</td>
<td>NorthPoint</td>
<td>0.13</td>
<td>0.19</td>
<td>0.33</td>
</tr>
</tbody>
</table>

**Totals**

<table>
<thead>
<tr>
<th>City</th>
<th>0.52</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>0.76</td>
</tr>
<tr>
<td>Company</td>
<td>1.32</td>
</tr>
</tbody>
</table>

### Emissions Calculations

**Total Emissions = Working Loss + Breathing Loss**

**Total Emissions (tons/year) = Total Emissions (lbs/year) / 2000 lbs per ton**

### TANKS 4.0 Speciation Profile

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Liquid(%)</th>
<th>PTE Single HAP (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillate Fuel Oil #2 (Diesel)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Meteorological Data used in Emissions Calculations

- Fort Wayne, Indiana (Avg Atmospheric Pressure = 14.31 psia)

### Methodology

Total Emissions = Working Loss + Breathing Loss

Total Emissions (tons/yr) = Total Emissions (lbs/yr) / 2000 lbs per ton

### Paint Characteristics

- Shell Color/Shade: Gray/Medium
- Vacuum Settings (psig): -0.03
- Pressure Settings (psig): 0.03

### Total HAPs

0.0000

*Liquid percentage of HAP does not necessarily equate the percentage of HAP emissions; however, IDEM OAO used the “Liquid Percentage” values to conservatively estimate HAP emissions until better information becomes available.*
October 2, 2019

Mr. Larry Wade
General Motors, LLC Fort Wayne Assembly
12200 Lafayette Center Road
Roanoke, Indiana  46783

Re: Public Notice
General Motors, LLC Fort Wayne Assembly
Permit Level: Title V Renewal
Permit Number: 003-41020-00036

Dear Mr. Wade:

Enclosed is a copy of your draft Title V Renewal, Technical Support Document, emission calculations, and the Public Notice.

The Public Notice period will begin the date the Notice is published on the IDEM Official Public Notice website. Publication has been requested and is expected within 2-3 business days. You may check the exact Public Notice begins and ends date here: https://www.in.gov/idem/5474.htm

Please note that as of April 17, 2019, IDEM is no longer required to publish the notice in a newspaper.

OAQ has submitted the draft permit package to the Allen County Public Library (Main Branch), 900 Library Plaza in Fort Wayne Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Aida DeGuzman, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 3-4972 or dial (317) 233-4972.

Sincerely,

John F. Jackson

John F. Jackson
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover Letter 4/12/19
October 2, 2019

To: Allen County Public Library (Main Branch)

From: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

Subject: Important Information to Display Regarding a Public Notice for an Air Permit

Applicant Name: General Motors, LLC Fort Wayne Assembly
 Permit Number: 003-41020-00036

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. Please make this information readily available until you receive a copy of the final package.

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. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library updated 4/2019
Notice of Public Comment

October 2, 2019
General Motors, LLC Fort Wayne Assembly
003-41020-00036

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has posted on IDEM’s Public Notice website at https://www.in.gov/idem/5474.htm.

The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana’s Air Permitting Program.

Please Note: If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.

Enclosure
PN AAA Cover Letter 4/12/2019
AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

October 2, 2019

A 30-day public comment period has been initiated for:

Permit Number: 003-41020-00036
Applicant Name: General Motors, LLC Fort Wayne Assembly
Location: Roanoke, Allen County, Indiana

The public notice, draft permit and technical support documents can be accessed via the IDEM Air Permits Online site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Affected States Notification 1/9/2017
Mail Code 61-53

<table>
<thead>
<tr>
<th>IDEM Staff</th>
<th>JJACKSON 10/2/2019 General Motors LLC Fort Wayne Assembly 003-41020-00036 (DRAFT)</th>
<th>AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name and address of Sender</td>
<td>Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Line</th>
<th>Article Number</th>
<th>Name, Address, Street and Post Office Address</th>
<th>Postage</th>
<th>Handing Charges</th>
<th>Act. Value (If Registered)</th>
<th>Insured Value</th>
<th>Due Send if COD</th>
<th>R.R. Fee</th>
<th>S.D. Fee</th>
<th>S.H. Fee</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Larry Wade General Motors LLC Fort Wayne Assembly 12200 Lafayette Center Rd Roanoke IN 46783 (Source CAATS)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td></td>
<td>Michael Thomas Plant Manager General Motors LLC Fort Wayne Assembly 12200 Lafayette Center Rd Roanoke IN 46783 (RO CAATS)</td>
<td></td>
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<tr>
<td>3</td>
<td></td>
<td>Daniel &amp; Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 (Affected Party)</td>
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<tr>
<td>4</td>
<td></td>
<td>Duane &amp; Deborah Clark Clark Farms 6973 E. 500 S. Columbia City IN 46725 (Affected Party)</td>
<td></td>
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<tr>
<td>5</td>
<td></td>
<td>Allen County Public Library (Main Branch) 900 Library Plaza, P.O. Box 2270 Fort Wayne IN 46802 (Library)</td>
<td></td>
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<tr>
<td>6</td>
<td></td>
<td>Mr. Jeff Coburn Plumbers &amp; Steamfitters, Local 166 2930 W Ludwg Rd Fort Wayne IN 46818-1328 (Affected Party)</td>
<td></td>
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<tr>
<td>7</td>
<td></td>
<td>Roanoke Town Council P.O. Box 328 Roanoke IN 46783 (Local Official)</td>
<td></td>
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<tr>
<td>8</td>
<td></td>
<td>Allen Co. Board of Commissioners 200 E Berry Street Ste 410 Fort Wayne IN 46802 (Local Official)</td>
<td></td>
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<td>9</td>
<td></td>
<td>Fort Wayne-Allen County Health Department 200 E Berry St Suite 360 Fort Wayne IN 46802 (Health Department)</td>
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<tr>
<td>10</td>
<td></td>
<td>Lisa Green The Journal Gazette 600 W Main St Fort Wayne IN 46802 (Affected Party)</td>
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</tbody>
</table>

The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50,000 per occurrence. The maximum indemnity payable on Express mill merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See *Domestic Mail Manual* R900, S913, and S921 for limitations of coverage on insured and COD mail. See *International Mail Manual* for limitations of coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.