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

Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding the Renewal of a
Part 70 Operating Permit

for Thor Wakarusa, LLC in Elkhart County

Part 70 Operating Permit Renewal No.: T039-47470-00017

The Indiana Department of Environmental Management (IDEM) has received an application from Thor Wakarusa, LLC located at 606 Nelsons Parkway, Wakarusa, IN 46573 for a renewal of its Part 70 Operating Permit issued on December 9, 2019. If approved by IDEM's Office of Air Quality (OAQ), this proposed renewal would allow Thor Wakarusa, LLC to continue to operate its existing source.

This draft permit does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). This notice fulfills the public notice procedures to which those conditions are subject. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow for these changes.

A copy of the permit application and IDEM's preliminary findings have been sent to:

Wakarusa-Olive & Harrison Township Public Library
124 N. Elkhart St.
Wakarusa, IN 46573

and

IDEM Northern Regional Office
300 North Dr. Martin Luther King Jr. Boulevard, Suite 450
South Bend, IN 46601-1295

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

A copy of the application and preliminary findings is also available via IDEM's Virtual File Cabinet (VFC). To access VFC, please go to: https://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?

This notice is posted on IDEM's website (https://www.in.gov/idem/public-notices/). The date that this notice is posted on IDEM's website 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 IDEM decides to conduct a public hearing and/or public meeting, IDEM will post a separate announcement of the date, time, and location of that public hearing and/or public meeting on IDEM's website (https://www.in.gov/idem/public-notices/). 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 T039-47470-00017 in all correspondence.

Comments should be sent to:

Madison Spahn
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for Madison Spahn or (317) 233-3031
Or dial directly: (317) 233-3031
Fax: (317) 232-6749 attn: Madison Spahn
E-mail: mspahn@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: https://www.in.gov/idem/airpermit/public-participation/; and the Citizens' Guide to IDEM on the Internet at: https://www.in.gov/idem/resources/citizens-guide-to-idem/.

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 and will also be sent to the local library indicated above, the IDEM Regional Office 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 Madison Spahn of my staff at the above address.

Brian Williams

Brian Williams, Section Chief
Permits Branch
Office of Air Quality

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DRAFT

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Thor Wakarusa, LLC
606 Nelsons Parkway
Wakarusa, Indiana 46573

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

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

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

Operation Permit No.: T 039-47470-00017 Master Agency Interest ID: 100043	
Issued by: Brian Willams, 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.4 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 multiple-plant complex which assembles and paints high-quality recreational vehicles that vary in floor plan and length.

Source Address:	606 Nelsons Parkway, Wakarusa, Indiana 46573
General Source Phone Number:	(574) 361-3777
SIC Code:	3716 (Motor Homes) 3792 (Travel Trailers and Campers)
County Location:	Elkhart
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)]

Pursuant to CP 039-8662-00017, issued on January 9, 1998, Thor Wakarusa, LLC's Nelsons Parkway Complex consists of the following plants:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting)
(b) Plant 2-35 (final paint plant)
(c) Plant 20-820 (welding and sidewall lamination)
(d) Plant 22-822 (welding operations)
(e) Plant 23-823 (normal maintenance operations)
(f) Plant 24-824 (normal maintenance operations)
(g) Plant 25-825 (warehouse)
(h) Plant 26-826 (white glove inspection area and dispatch)
(i) Plant 28 (warehouse)
(j) Plant 29-829 (Diesel Service Center)
(k) Plant 32-7/8 (welding) and Plant 32A (warehouse)
(l) Plant 33-833 (compressor building)
(m) Plant 34-834 (warehouse)
(n) Plant 35-833E (fire pump Southeast of Plant 2)
(o) Plant 36-836 (woodworking and welding operations)
(p) Plant 854 (Gasoline Service Center)
(q) Plant 55-5 (warehouse)
(r) Plant 56-5 (warehouse and welding)
(s) Plant 831 (flow coat lamination)

Thor Wakarusa, LLC also owns a motor home assembly operation, identified as Plant 450 (Plant ID# 039-00692), at 1060 East Waterford Street, Wakarusa, Indiana, 46573.

Since these twenty (20) plants are located on contiguous or adjacent properties, belong to the same industrial grouping, and are under common control of the same entity, they are considered one (1) source as defined by 326 IAC 2-7-1(22). This conclusion was initially determined under

CP 039-8662-00017, issued on January 9, 1998, incorporated into Part 70 Operating Permit Renewal (T039-26937-00017) on August 19, 2010, and modified by Minor Source Modification No. 039-38507-00017.

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

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

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(1) One (1) woodworking mill room, identified as D1-01, with a maximum capacity of 3260 pounds of wood per hour, using tools including (but not limited to) saws, routers, and planers, using a bagfilter collector as particulate control, constructed in 1997, and exhausting to stack DV1-01 when exhausting to the atmosphere. Sawdust is collected in a silo using a cyclone separator, with all air recirculated through the bagfilter collector. The unit can exhaust to the atmosphere or operate as a return air unit.

(2) One (1) sidewall adhesive application process, identified as SV1-6, with a maximum capacity of 1.5 vehicles per hour, using hand held non-atomizing applicators, with emissions uncontrolled, constructed in 1997. There is no direct exhaust route for this unit. A general ceiling vent, identified as SV1-6, is located in the vicinity.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the sidewall adhesive application process, identified as SV1-6 is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the sidewall adhesive application process, identified as SV1-6 is considered a part of an existing source.

(3) Three (3) manual assembly lines applying sealants, caulks, and cleaners, identified as Assembly Lines 1-Red, 2-Blue, and 3-White, with a maximum capacity of 3.5 vehicles per hour, each, using various hand tools, identified as D1-04, with emissions uncontrolled, all constructed in 1997, and exhausting to general ventilation vent GV1-01.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the manual assembly lines, identified as D1-04 are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the manual assembly lines, identified as D1-04 are considered considered a part of an existing source.

(4) One (1) double head drill press, identified as P850-DHD1, constructed in 2020, with a maximum capacity of 500 lb/hr, using no controls, and exhausting indoors.

(5) One (1) single head drill press, identified as P850-SHD1, constructed in 2020, with a maximum capacity of 500 lb/hr, using no controls, and exhausting indoors.

(6) Four (4) cut off saws, identified as P850-57, P850-59, P850-35, and P850-60, constructed in 2020, with a maximum capacity of 500 lb/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(7) Two (2) table saws, identified as P850-50 and P850-41, constructed in 2020, with

a maximum capacity of 500 lb/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(8) One (1) belt sander, identified as P850-BS1, constructed in 2020, with a maximum capacity of 500 lbs/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

(9) Eight (8) cut off saws, identified as P850-46, P850-39, P850-43, P850-27, P850-6, P850-47, P850-48, P850-COS1, constructed in 2020, with a maximum capacity of 250 lb/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(10) One (1) table saw, identified as P850-TS1, constructed in 2020, with a maximum capacity of 250 lbs/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

(11) One (1) touch-up painting operation, identified as P850TP, constructed in 2020, with a maximum capacity of 1.50 units/hr, using no controls, and exhausting indoors.

Under 40 CFR 63, Subpart PPPP, this is considered a part of an existing source.

(b) Plant 2-35 (final paint plant) contains:

(1) One (1) full paint line, identified as Paint Line A, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-27, one (1) clearcoat booth, identified as SV2-28, and one (1) clearcoat/bake booth, identified as SV2-29, with a total maximum capacity of 10 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-27, SV2-28, and SV2-29, respectively; and

(B) Two (2) coating booths, identified as SV2-35 and SV2-36, applying basecoat and clear RTS using HVLP equipment or its equivalent, and controlled by dry filters; and

(C) One (1) natural gas-fired bake oven, identified as SV2-37, with a maximum heat input capacity of 4.0 MMBtu per hour; and

(D) Two (2) natural gas-fired air make-up units, each with a maximum heat input capacity of 4.0 MMBtu per hour.

(2) One (1) full paint line, identified as Paint Line B, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-20, one (1) seal and base booth, identified as SV2-21, and one (1) paint stripe booth, identified as SV2-22, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-20, SV2-21, and SV-22, respectively; and

(B) One (1) prep and repair booth, identified as SV2-23, one (1) clear and bake booth, identified as SV2-24, one (1) sand and repair station, identified as SV2-25, and one (1) reclear and bake booth, identified as SV2-26, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-23A and SV2-23B, SV2-24A and SV2-24B, SV2-25A and SV2-25B, and SV2-26A and SV2-26B, respectively.

(3) One (1) full paint line, identified as Paint Line C, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-13, one (1) seal and base booth, identified as SV2-14, and one (1) paint stripe booth, identified as SV2-15, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-13, SV2-14, and SV2-15 respectively; and

(B) One (1) prep and repair booth, identified as SV2-16, one (1) clear and bake booth, identified as SV2-17, one (1) sand and repair station, identified as SV2-18, and one (1) reclear and bake booth, identified as SV2-19, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-16A and SV2-16B, SV2-17A and SV2-17B, SV2-18A and SV2-18B, and SV2-19A and SV2-19B, respectively.

(4) One (1) full paint line, identified as Paint Line D, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-7, and one (1) repair and stripe booth, identified as SV2-8, with a maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-7 and SV2-8, respectively; and

(B) One (1) slideout booth, identified as SV2-9, one (1) repair and clear booth, identified as SV2-10, one (1) sand and repair station, identified as SV2-11, and one (1) reclear booth, identified as SV2-12, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-9A and SV2-9B, SV2-10A and SV2-10B, SV2-11A and SV2-11B, and SV2-12A and SV2-12B, respectively.

(5) One (1) full paint line, identified as Paint Line E, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-1, and one (1) repair and stripe booth, identified as SV2-2, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-1 and SV2-2, respectively; and

(B) One (1) slideout booth, identified as SV2-3, one (1) repair and clear booth, identified as SV2-4, one (1) sand and repair station, identified as SV2-5, and one (1) reclear booth, identified as SV2-6, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-3A and SV2-3B, SV2-4A and SV2-4B, SV2-5A and SV2-5B, and SV2-6A and SV2-6B, respectively.

(6) One (1) repair line, consisting of:

(A) Three (3) paint repair booths, identified as SV2-30, SV2-31, and SV2-32, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, all using air-atomized spray applicators and dry filters as particulate control, all constructed in 1998, exhausting to stacks SV2-30, SV2-31, and SV2-32, respectively; and

(B) Two (2) paint repair booths, identified as SV2-33 and SV2-34, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, both using air-atomized spray applicators and dry filters as particulate control, both constructed in 2003, and exhausting to stacks SV2-33 and SV2-34, respectively.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 paint lines are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 paint lines are considered considered a part of an existing source.

(7) Seven (7) paint gun cleaners, identified as PGC1 through PGC7,

(c) Plant 20-820 (welding and sidewall lamination) contains:

(1) One (1) adhesive applicator, using roll coating to apply hot melt adhesives.

(2) One (1) sidewall welding operation, identified as EU20-B (formerly EU1-8), consisting of twenty-four (24) welding stations, with a maximum capacity of 3 pounds of wire per station per hour, with emissions uncontrolled, constructed prior to 1981, and exhausting to general ventilation stacks GV20-2A.

(d) Plant 26-826 (white glove inspection area and dispatch) contains:

Four (4) inspection bays for final vehicle inspection, with a maximum capacity of 3.5 vehicles per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, constructed prior to 1981, with emissions exhausting through general ventilation to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 inspection bays are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 26-826 inspection bays are considered considered a part of an existing source.

(e) Plant 29-829 (diesel service center):

(1) Thirteen (13) diesel-engine motor home service bays, constructed prior to 1989, modified in 2000 and 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the diesel service center is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the diesel service center is considered a part of an existing source.

(f) Plant 450 (motor home assembly)

(1) One (1) woodworking operation, identified as P450WW, constructed in 2017, with a maximum capacity of 2,500 pounds of wood per hour, equipped with an integral dust collector for particulate control, and exhausting to stack P450DC1S or indoors.

(2) One (1) motor home assembly line applying sealants, caulks, and cleaners, identified as P450AO, formerly L1-Gold, constructed in 2012 and modified in 2017, with a maximum capacity of 1.5 vehicles per hour, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, P450AO is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, P450AO is considered a part of an existing source.

(3) Four (4) cut off saws, identified as P450-1, P450-8, P450-11, and P450-20, constructed in 2020, with a maximum capacity of 250 lbs/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(4) One (1) double edge router, identified as P450-RT1, constructed in 2020, with a maximum capacity of 1,000 lbs/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

(g) Plant 854 (gasoline service center)

(1) One (1) gasoline-engine motor home service operation, constructed in 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the gasoline-engine motor home service operation is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the gasoline-engine motor home service operation is considered a part of an existing source.

(h) Plant 831 (lamination):

(1) Four (4) cut off saws, identified as P831-1, P831-3, P831-4, and P831-5, constructed in 2020, with a maximum capacity of 500 lbs/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(2) One (1) table saw, identified as P831-TS1, constructed in 2020, with a maximum capacity of 500 lbs/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

(3) Three (3) sidewall routers, identified as P831SWR1, P831SWR2, and P831SWR3, constructed in 2020, with a maximum capacity of 1,200 lbs/hr, each, using no controls, and exhausting indoors.

(4) One (1) roof routers, identified as P831RR1, constructed in 2020, with a maximum capacity of 3,640 lbs/hr, using no controls, and exhausting indoors.

(5) Two (2) floor routers, identified as P831FR1 and P831FR2, constructed in 2020, with a maximum capacity of 1,860 lbs/hr, each, using no controls, and exhausting indoors.

(i) Plant 36-836 (woodworking operations) contains:

(1) One (1) cut off saw, identified as P836-COS1, constructed in 2020, with a maximum capacity of 250 lb/hr, using no controls, and exhausting indoors.

(2) One (1) table saw, identified as P836-TS1, constructed in 2020, with a maximum capacity of 500 lb/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

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

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

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(1) Emergency generators as follows:

(A) One (1) Cummins Onan natural gas-fired emergency generator, with a maximum capacity of 60 kW and 80 hp, with emissions uncontrolled, constructed on or before January 28, 2004, and exhausting to stack SV1-7.

This unit is considered an existing affected source under 40 CFR 63, Subpart ZZZZ.

(2) Fiberglass cap windshield setting operations and repairs, with a maximum capacity of 3.5 vehicles per hour, using adhesives, with emissions uncontrolled, and exhausting to stack GV31-2.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the fiberglass cap windshield setting operations and repairs are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the fiberglass cap windshield setting operations and repairs are considered considered a part of an existing source.

(b) Plant 2-35 (final paint plant) contains:

(1) Two (2) paint prep areas, with a total maximum capacity of 4.5 vehicles and recreational vehicle components per hour, using solvents, cleaners, composites, and hand-sanding equipment for cleaning and body repair, using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, exhausting

through general ventilation stacks GV2-3 through GV2-7.

(2) One (1) paint storage and mixing area, with a maximum capacity of 4.5 vehicles and recreational vehicle components per hour, with emissions uncontrolled, and exhausting to vents SV2-15 and SV2-16.

(3) One (1) final inspection area, consisting of two (2) lines, with a maximum capacity of 3.5 vehicles and recreational vehicle components per hour, using hand-held applicators to apply solvents, cleaners, sealants, adhesives, and paint, with emissions uncontrolled, constructed in 1998, and exhausting through general ventilation to stacks GV2-1 and GV2-2.

(4) One (1) adhesive applicator, using roll coating to apply hot melt adhesives.

(5) One (1) automatic paint gun cleaner, identified as PGC1, with a maximum capacity of five gallons.

(6) Six (6) manual paint gun cleaners, identified as PGC2 through PGC7, with a maximum capacity of five gallons, each.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 insignificant activities are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 insignificant activities are considered considered a part of an existing source.

(c) Plant 20-820 (welding and sidewall lamination) contains:

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

(A) One (1) natural gas-fired air makeup unit, identified as P820AM1, constructed in 2017, with a maximum heat input capacity of 0.028 MMBtu/hr, using no controls, and exhausting to stack P820AM1S.

(B) One (1) natural gas-fired thermo-cycler, identified as P820TC1, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, using no controls, and exhausting to stack P820TC1S.

(d) Plant 22-822 (welding operations), located at Plant 2-35 on June 21, 2004, contains:

(1) One (1) welding operation, identified as 22-822W, consisting of six (6) welding stations (formerly located in Plant 32-7/8), with a maximum capacity of 3 pounds of wire per station per hour, constructed in 1998, with emissions uncontrolled and exhausting indoors.

(e) Plant 26-826 (white glove inspection area and dispatch) contains:

(1) White glove inspection, with a maximum capacity of 1 vehicle per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, and exhausting to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 white glove inspection operations are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the white glove inspection operations are considered considered a part of an existing source.

(f) Plant 32-7/8 (welding and warehouse) contains:

(1) Welding operations consisting of four (4) MIG welding stations (formerly located in Plant 20), with a maximum capacity of 3 pounds of wire per welder per hour, constructed in 1998, with emissions uncontrolled and exhausting indoors.

(g) Plant 35-833E (fire pump southeast of Plant 2-35) contains:

(1) One (1) diesel fire pump located southeast of Plant 2, with a maximum capacity of 140 HP, constructed in 1998.

Under 40 CFR 63, Subpart ZZZZ, this is considered a limited use existing source.

(h) Plant 56-5 (warehouse and welding) contains:

(1) Welding operations consisting of five (5) MIG welding stations, with a maximum capacity of 3 pounds of wire per welder per hour, with emissions uncontrolled, approved in 2012 for construction, and exhausting indoors.

(i) Plant 450 (motor home assembly):

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

(A) One (1) natural gas-fired space heater, identified as OH1, constructed in 2017, with a maximum heat input capacity of 0.12 MMBtu/hr, using no controls, and exhausting to stack OH1S.

(B) Two (2) natural gas-fired thermo-cyclers, identified as TC1 and TC2, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, each, using no controls, and exhausting to stacks TC1S and TC2S.

(C) One (1) natural gas-fired air makeup unit, identified as AM1, constructed in 2017, with a maximum heat input capacity of 0.97 MMBtu/hr, using no controls, and exhausting to stack AM1S.

(j) Plant 831 (lamination):

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

(A) Five (5) natural gas-fired thermo-cyclers, identified as P831TC1-P831TC5, constructed in 2017, with a maximum heat input capacity of 0.72 MMBtu/hr, each, using no controls, and exhausting to stacks P831TC1S-P831TC5S.

(B) One (1) natural gas-fired thermo-cycler, identified as P831TC6, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, using no controls, and exhausting to stack P831TC6S.

(C) One (1) natural gas-fired furnace, identified as P831SH1, constructed in 2017, with a maximum heat input capacity of 0.075 MMBtu/hr, using no controls, and exhausting to stack P831SH1S.

(D) Two (2) natural gas-fired furnaces, identified as P831SH2 and P831SH3, constructed in 2017, with a maximum heat input capacity of 0.09 MMBtu/hr, each, using no controls, and exhausting to stacks P831SH2S and P831SH3S.

(E) One (1) natural gas-fired furnace, identified as P831SH4, constructed in 2017, with a maximum heat input capacity of 0.11 MMBtu/hr, using no controls, and exhausting to stack P831SH4S.

(2) Emergency generators as follows:

(A) One (1) diesel emergency generator, identified as EG2, constructed in 2017, with a maximum engine output of 480 horsepower, using no controls, and exhausting to stack EG2S.

Under the NSPS, 40 CFR 60, Subpart IIII, the diesel emergency generator, identified as EG2, is an affected source.

Under the NESHAP, 40 CFR 63, Subpart ZZZZ, the diesel emergency generator, identified as EG2, is a new stationary RICE located at a major source of HAP emissions.

(3) Flow coat lamination machines as follows:

(A) One (1) flow coat lamination machine, identified as FCL1, permitted in 2010 and modified in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting to stack GV1-1

(B) One (1) flow coat lamination machine, identified as FCL2, permitted in 2015 and modified in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(C) One (1) flow coat lamination machine, identified as FCL3 (formerly GV32-1), permitted in 2010 and modified in 2017, with a maximum capacity of 3.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(D) Six (6) flow coat laminating machines, identified as FCL4-FCL9, constructed in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, each, using no controls and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the flow coat laminating machines, identified as FCL1-FCL9, are part of an existing affected source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the flow coat laminating machines, identified as FCL1-FCL9, are part of an existing affected source.

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

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

(a) Plant 20-820 (welding and sidewall lamination) contains:

(1) Welding operations as follows:

(A) Welding operations consisting of ten (10) welding stations, with a maximum capacity of 3 pounds of wire per welder per hour, with emissions uncontrolled, constructed in 1998, and exhausting to general ventilation stacks GV20-2 through GV20-10.

(B) Welding operations consisting of fifteen (15) MIG welding stations (formerly located in Plant 31), with a maximum capacity of 3 pounds of wire per welder per hour, constructed in 1998, with emissions uncontrolled and exhausting to general ventilation stacks GV20-2 through GV20-10.

(C) Nine (9) steel welding stations, identified as EU20-820CS, constructed in 2017, with a maximum capacity of 3 pounds of wire per hour, each, using no controls and exhausting indoors.

(D) Sixteen (16) aluminum welding stations, identified as EU20-820CA, constructed in 2017, with a maximum capacity of 3 pounds of wire per hour, each, using no controls and exhausting indoors.

(b) Plant 28-828 (warehouse) contains:

(1) One (1) wire harness assembly operation, identified as WHA, permitted in 2016, with a maximum capacity of 0.025 pounds of solder per hour, and 0.0039 pounds of flux per hour, and exhausting to stack WHAS.

(c) Plant 36-836 (welding operations) contains:

(1) Welding operations consisting of forty-four (44) MIG welding stations, with a maximum capacity of 3 pounds of wire per welder per hour, constructed in 1998, with emissions uncontrolled and exhausting indoors.

(d) Plant 450 (motor home assembly):

(1) Fuel dispensing activities as follows:

(A) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons, as follows:

(i) One (1) gasoline storage tank, identified as GT1, constructed in 2017, with a maximum capacity of 1,000 gallons and a maximum throughput of 25,000 gallons per year, using no control and exhausting to stack GT1S.

(B) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, as follows:

(i) One (1) diesel fuel storage tank, identified as DT1, constructed in 2017, with a maximum capacity of 300 gallons and a maximum throughput of 25,000 gallons per year, using no control and exhausting to stack DT1S.

(2) One (1) set of miscellaneous RV manufacturing processes, identified as P450MO, constructed in 2017, as follows:

(A) Two (2) woodworking drill machines, identified as DM1 and DM2, with a maximum capacity of 100 pounds of wood stock per hour, each.

(B) Two (2) woodworking band saws, identified as BS1 and BS2, with a maximum capacity of 100 pounds of wood stock per hour, each.

(C) One (1) aluminum-cutting band saw, identified as BS3, with a maximum capacity of 100 pounds of aluminum stock per hour.

(D) Five (5) aluminum-cutting chop saws, identified as CS1 - CS5, with a maximum capacity of 100 pounds of aluminum stock per hour, each.

(E) One (1) aluminum-cutting abrasive saw, identified as AS1, with a maximum capacity of 100 pounds of aluminum stock per hour.

(e) Plant 831 (lamination):

(1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons, as follows.

(A) One (1) diesel fuel tank, identified as EG2DT, constructed in 2017, with a maximum storage capacity of 450 gallons, using no controls, and exhausting to stack EG2DTS.

A.6 Part 70 Permit Applicability [326 IAC 2-7-2]

This 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, T 039-47470-00017, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(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 April 15 of each year to:

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) All terms and conditions of permits established prior to T 039-47470-00017 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

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

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

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

(1) That this permit contains a material mistake.

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

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

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

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

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

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(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] [40 CFR 72]

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) 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.

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

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 317-233-8590 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

C.6 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.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

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.8 Performance Testing [326 IAC 3-6]

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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.9 Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

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

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

C.12 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.13 Risk Management Plan [326 IAC 2-7-5(11)] [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.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]

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

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

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results;

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

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

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

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

(II)

(a) CAM *Response to excursions or exceedances.*

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

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

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a 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)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

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

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

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

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(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.15 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.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit 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.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, 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(y)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

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

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

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

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

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

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

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

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B - Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

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

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

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

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

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C - 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.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Source-Wide Operations

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

D.1.1 Prevention of Significant Deterioration (PSD) - VOC [326 IAC 2-2]

Pursuant to CP 039-7335-00017 (issued July 24, 1997), SSM 039-12758-00017 (issued May 15, 2001), and as revised by T039-7559-00017 (issued June 21, 2004) and T039-26937-00017 (issued August 19, 2010), the total VOC emissions from the emission units listed in the following table shall be restricted such that the VOC emissions shall not exceed 240.19 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

Plant	Emission Units (June 21, 2004)
Emission Units and Pollution Control Equipment Summary	
1-850	D1-01
	SV1-6
	D1-04
20-820	EU-20B
26-826	Four (4) inspection bays
	GV26-1 through GV26-4
29-829	Diesel service center Thirteen (13) inspection bays
	GV29-1 through GV29-4
Insignificant Activities	
1-850	Fiberglass cap windshield GV31-2
831	FCL1 (formerly GV1-1)
	FCL2
	FCL3 (formerly GV32-1)
20-820	25 Weld Stations GV20-2 through GV20-10
22-822	6 Weld Stations
26-826	White Glove Inspection GV26-1 through GV26-4
32-7/8	4 Weld Stations
Combustion Facilities	
1-850	Emergency Generator SV1-7
35-833E	Fire Pump

Compliance with this limit, in combination with the potential VOC emissions from all listed combustion and welding facilities at the source on June 21, 2004, shall limit the VOC emissions to less than 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the above listed emissions units.

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A preventive maintenance plan is required for these facilities and their 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.1.3 VOC Emissions [326 IAC 2-2]

Compliance with the VOC emission limit in condition D.1.1 shall be determined by using the following equation:

VOC Emissions (tons/month) = Total VOC input to the surface coating operations in all plants except for Plant 2-35, including coatings, dilution solvents, and cleaning

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Condition D.1.1 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.

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

D.1.5 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC content limits established in Condition D.1.1.

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

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

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(3) The total VOC usage for each month.

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

D.1.6 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1 shall be submitted 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.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(1) One (1) woodworking mill room, identified as D1-01, with a maximum capacity of 3260 pounds of wood per hour, using tools including (but not limited to) saws, routers, and planers, using a bagfilter collector as particulate control, constructed in 1997, and exhausting to stack DV1-01 when exhausting to the atmosphere. Sawdust is collected in a silo using a cyclone separator, with all air recirculated through the bagfilter collector. The unit can exhaust to the atmosphere or operate as a return air unit.

(3) Three (3) manual assembly lines applying sealants, caulks, and cleaners, identified as Assembly Lines 1-Red, 2-Blue, and 3-White, with a maximum capacity of 3.5 vehicles per hour, each, using various hand tools, identified as D1-04, with emissions uncontrolled, all constructed in 1997, and exhausting to general ventilation vent GV1-01.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the manual assembly lines, identified as D1-04 are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the manual assembly lines, identified as D1-04 are considered considered a part of an existing source.

(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 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

In order to render the requirements of 326 IAC 8-1-6 not applicable, Permittee shall comply with the following when coating substrates not otherwise regulated under Article 8:

(1) The total VOC input, including adhesives, coatings, dilution solvents, and cleaning solvents, to each of the three (3) manual assembly lines (D1-04) shall be less than twenty-five (25) tons, each, per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits will render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to the three (3) manual assembly lines (D1-04).

D.2.2 Volatile Organic Compounds [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), the Permittee shall not allow the discharge into the atmosphere from the units listed in the table below 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 when coating metals.

Plant	Description	Unit ID
1-850	manual assembly lines 1-Red, 2-Blue, and 3-White	D1-04

D.2.3 Volatile Organic Compounds (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be 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 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.2.4 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions rate from the following operations shall not exceed the pound per hour limit (E) when operating at the associated process weight rate as listed in the table below:

Process Description	Process Weight Rate (ton/hr)	E 326 IAC 6-3-2 Limit (lb/hr)
D1-01	1.63	5.69

These pound per hour limitations were calculated with the following equation:

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

$$E = 4.10\, P^{0.67}$$

Where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.2.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Condition D.2.1 and D.2.2 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.

D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limit in Condition D.2.2, when using 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 for each unit listed in the table below:

Plant	Description	Unit ID
1-850	manual assembly lines 1-Red, 2-Blue, and 3-White	D1-04

This volume weighted average shall be determined by the following equation:

$$A = [\sum (C \times U) / \sum U]$$

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.

D.2.8 Particulate Control

In order to assure compliance with Condition D.2.4, the bagfilter collector for particulate emission control shall be in operation and control emissions from the one (1) woodworking mill room, identified as D1-01, at all times the one (1) woodworking mill room, identified as D1-01, is in operation.

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

D.2.9 Broken or Failed Bag Detection - Single Compartment Baghouse

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

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

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

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

D.2.10 Visible Emissions Notations

(a) Visible emission notations of the one (1) woodworking mill room's stack exhaust (stack DV1-01) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. 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.2.11 Record Keeping Requirements

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

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

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

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

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

(3) The cleanup solvent usage for each month.

(4) The total VOC usage for each month and each compliance period.

(5) The VOC content of each coating less water as applied.

(6) The volume weighted average VOC content less water of the coatings used for each day for each unit.

(b) To document the compliance status with Condition D.2.10, the Permittee shall maintain daily records of the visible emission notations of the one (1) woodworking mill room's stack exhaust (stack DV1-01). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g., the process did not operate that day).

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

D.2.12 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.1 shall be submitted no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(b) Plant 2-35 (final paint plant) contains:

(1) One (1) full paint line, identified as Paint Line A, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-27, one (1) clearcoat booth, identified as SV2-28, and one (1) clearcoat/bake booth, identified as SV2-29, with a total maximum capacity of 10 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-27, SV2-28, and SV2-29, respectively; and

(B) Two (2) coating booths, identified as SV2-35 and SV2-36, applying basecoat and clear RTS using HVLP equipment or its equivalent, and controlled by dry filters; and

(C) One (1) natural gas-fired bake oven, identified as SV2-37, with a maximum heat input capacity of 4.0 MMBtu per hour; and

(D) Two (2) natural gas-fired air make-up units, each with a maximum heat input capacity of 4.0 MMBtu per hour.

(2) One (1) full paint line, identified as Paint Line B, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-20, one (1) seal and base booth, identified as SV2-21, and one (1) paint stripe booth, identified as SV2-22, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-20, SV2-21, and SV-22, respectively; and

(B) One (1) prep and repair booth, identified as SV2-23, one (1) clear and bake booth, identified as SV2-24, one (1) sand and repair station, identified as SV2-25, and one (1) reclear and bake booth, identified as SV2-26, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-23A and SV2-23B, SV2-24A and SV2-24B, SV2-25A and SV2-25B, and SV2-26A and SV2-26B, respectively.

(3) One (1) full paint line, identified as Paint Line C, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-13, one (1) seal and base booth, identified as SV2-14, and one (1) paint stripe booth, identified as SV2-15, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-13, SV2-14, and SV2-15 respectively; and

(B) One (1) prep and repair booth, identified as SV2-16, one (1) clear and bake booth, identified as SV2-17, one (1) sand and repair station, identified as SV2-18, and one (1) reclear and bake booth, identified as SV2-19, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-16A and SV2-16B, SV2-17A and SV2-17B, SV2-18A and SV2-18B, and SV2-19A and SV2-19B, respectively.

(4) One (1) full paint line, identified as Paint Line D, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-7, and one (1) repair and stripe booth, identified as SV2-8, with a maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-7 and SV2-8, respectively; and

(B) One (1) slideout booth, identified as SV2-9, one (1) repair and clear booth, identified as SV2-10, one (1) sand and repair station, identified as SV2-11, and one (1) reclear booth, identified as SV2-12, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-9A and SV2-9B, SV2-10A and SV2-10B, SV2-11A and SV2-11B, and SV2-12A and SV2-12B, respectively.

(5) One (1) full paint line, identified as Paint Line E, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-1, and one (1) repair and stripe booth, identified as SV2-2, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-1 and SV2-2, respectively; and

(B) One (1) slideout booth, identified as SV2-3, one (1) repair and clear booth, identified as SV2-4, one (1) sand and repair station, identified as SV2-5, and one (1) reclear booth, identified as SV2-6, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-3A and SV2-3B, SV2-4A and SV2-4B, SV2-5A and SV2-5B, and SV2-6A and SV2-6B, respectively.

(6) One (1) repair line, consisting of:

(A) Three (3) paint repair booths, identified as SV2-30, SV2-31, and SV2-32, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, all using air-atomized spray applicators and dry filters as particulate control, all constructed in 1998, exhausting to stacks SV2-30, SV2-31, and SV2-32, respectively; and

(B) Two (2) paint repair booths, identified as SV2-33 and SV2-34, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, both using air-atomized spray applicators and dry filters as particulate control, both constructed in 2003, and exhausting to stacks SV2-33 and SV2-34, respectively.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 paint lines are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 paint lines are considered considered a part of an existing source.

Insignificant Activities:

(b) Plant 2-35 (final paint plant) contains:

(1) Two (2) paint prep areas, with a total maximum capacity of 4.5 vehicles and recreational vehicle components per hour, using solvents, cleaners, composites, and hand-sanding equipment for cleaning and body repair, using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, exhausting through general ventilation stacks GV2-3 through GV2-7.

(2) One (1) paint storage and mixing area, with a maximum capacity of 4.5 vehicles and recreational vehicle components per hour, with emissions uncontrolled, and exhausting to vents SV2-15 and SV2-16.

(3) One (1) final inspection area, consisting of two (2) lines, with a maximum capacity of 3.5 vehicles and recreational vehicle components per hour, using hand-held applicators to apply solvents, cleaners, sealants, adhesives, and paint, with emissions uncontrolled, constructed in 1998, and exhausting through general ventilation to stacks GV2-1 and GV2-2.

(4) One (1) adhesive applicator, using roll coating to apply hot melt adhesives.

(5) One (1) automatic paint gun cleaner, identified as PGC1, with a maximum capacity of five gallons.

(6) Six (6) manual paint gun cleaners, identified as PGC2 through PGC7, with a maximum capacity of five gallons, each.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 insignificant activities are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 insignificant activities are considered considered a part of an existing source.

(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 Best Available Control Technology (BACT) - VOC [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to PSD/SSM 039-15620-00017, issued on December 11, 2002; 326 IAC 2-2 (PSD); 326 IAC 8-1-6 (BACT); and as revised by T039-7559-00017, issued on June 21, 2004, PSD BACT for VOC have been determined to be the following:

(a) All facilities located at Plant 2-35 (previously identified as Plant 2) on June 21, 2004, must comply with the following requirements:

(1) Lacquer thinners and preparation cleaners and solvents used on vehicle exteriors will be hand-wiped and contain a maximum 6.5 pounds VOC per gallon of coating as applied.

(2) Except as provided below, primers will be applied using high volume-low pressure (HVLP) spray equipment, or the equivalent, and contain a maximum of 3.5 pounds VOC per gallon of coating as applied.

(3) Except as provided below, base coats will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 6.5 pounds VOC per gallon of coating as applied.

(4) Except as provided below, clear coats will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 3.5 pounds VOC per gallon of coating as applied.

(5) Except as provided below, sealers will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 3.5 pounds VOC per gallon of coating as applied.

(6) As an alternative to complying with the individual VOC content limitations for base coats and clear coats, compliance may be determined by averaging the emissions from base coat and clear coat operations across affected lines. The average VOC content for the base coat/clear coat system shall be limited to less than or equal to 4.5 pounds VOC per gallon of coating as applied. This limitation is based on a ratio of two parts clear coat to one part base coat. Compliance will be demonstrated monthly based on the actual VOC content as applied of each coating and actual usage of base coats and clear coats during the month.

(7) Good housekeeping practices will be employed to minimize leaks, spills, and evaporative losses. These include: sealing lids on all containers not in use or in storage, the purging of guns and lines into approved containers, maintaining an organized spill response and clean-up operation, performing routine maintenance on spray equipment and pumps to prevent drips and seal leaks, the use of solvent recovery systems to recover reusable solvents for on-site or off-site recycling, and using aqueous, exempt solvents or citric cleaners where effective and practical.

(8) All coating materials, including primers, base coats, and clear coats, used in the repair booths will be applied with air-atomized spray equipment, or the equivalent.

(9) When necessary, vehicle exteriors will be hand-wiped with cleaning solvent prior to painting.

(10) Collected solvents will be recycled on-site and off-site to recover reusable solvents and minimize waste.

(11) Vehicles will be undercoated with a waterborne-low VOC coating.

(b) The surface coating operations in Partial Paint Line A and Full Paint Lines B through E shall use, in aggregate, less than 539 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period with compliance determined at the end of each month.

The VOC usage limit, in conjunction with the usage of low VOC/high solids coatings and high transfer application methods listed in (1) through (11) above and the VOC emissions from the insignificant natural gas fired air-make-up units, has been incorporated to limit the potential to emit VOC from Plant 2-35 (previously Identified as Plant 2) to less than 540.4 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these requirements and limits will satisfy the requirements of 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 (BACT).

D.3.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions rate from the following operations shall not exceed the pound per hour limit (E) when operating at the associated process weight rate as listed in the table below:

Process Description	Process Weight Rate (ton/hr)	E 326 IAC 6-3-2 Limit (lb/hr)
Full (Paint Line A) Paint Prep Area	100.00	51.28
Full (Paint Lines B through E) Paint Prep Area	100.00	51.28

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

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

D.3.3 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from Paint Line A, Paint Line B, Paint Line C, Paint Line D, Paint Line E, and Repair Line shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.3.4 VOC [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), when surface coating miscellaneous metal parts or products:

(1) The Permittee shall not cause, allow, or permit the discharge into the atmosphere of any VOC in excess of the following:

Forty-two hundredths (0.42) kilogram per liter (three and five-tenths (3.5) pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings.

(2) Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be 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.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.3.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC content limitations contained in Conditions D.3.1 and D.3.4 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, 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.

D.3.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limit in Condition D.3.4, when using 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 for each unit listed in the table below:

Plant	Description
2-35	Paint Line A
	Paint Line B
	Paint Line C
	Paint Line D
	Paint Line E

This volume weighted average shall be determined by the following equation:

$$A = [\sum (C \times U) / \sum U]$$

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.

D.3.8 Particulate Control

In order to comply with Condition D.3.2, dry filters shall be used to control particulate emissions at all times the Paint Line A, Paint Line B, Paint Line C, Paint Line D, Paint Line E, and Repair Line, are in operation.

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

D.3.9 Visible Emissions Notations [40 CFR Part 64]

(a) Visible emission notations of the two (2) paint prep areas stack exhausts (stacks GV2-3 through GV2-7) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.3.10 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the Paint Line A, Paint Line B, Paint Line C, Paint Line D, Paint Line E, and Repair Line stacks while one or more of the booths are in operation. If a condition exists which should result in a response, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response required by this condition. Failure to take a reasonable response shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response required by this condition. Failure to take a reasonable response 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.3.11 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC content and usage limits established in Condition D.3.1. Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.

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

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

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

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

(3) The total VOC usage for each month.

(b) To document the compliance status with Condition D.3.4, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC content limits established in Condition D.3.4.

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

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

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

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

(3) The VOC content of each coating less water as applied.

(4) The volume weighted average VOC content less water of the coatings used for each day for each unit.

(c) To document the compliance status with Condition D.3.9, the Permittee shall maintain daily records of the visible emission notations of the two (2) paint prep areas stack exhausts (stacks GV2-3 through GV2-7). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g., the process did not operate that day).

(d) To document the compliance status with Condition D.3.3 and D.3.10, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.

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

D.3.12 Reporting Requirements

(a) A quarterly report of VOC usage and a quarterly summary of the information to document the compliance status with Condition D.3.1(b) shall be submitted not later than thirty (30) days after the end of the quarter being reported.

(b) 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) Plant 26-826 (white glove inspection area and dispatch) contains:

Four (4) inspection bays for final vehicle inspection, with a maximum capacity of 3.5 vehicles per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, constructed prior to 1981, with emissions exhausting through general ventilation to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 inspection bays are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 26-826 inspection bays are considered considered a part of an existing source.

(f) Plant 450 (motor home assembly)

(2) One (1) motor home assembly line applying sealants, caulks, and cleaners, identified as P450AO, formerly L1-Gold, constructed in 2012 and modified in 2017, with a maximum capacity of 1.5 vehicles per hour, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, P450AO is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, P450AO is considered a part of an existing source.
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(g) Plant 854 (gasoline service center)

(1) One (1) gasoline-engine motor home service operation, constructed in 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the gasoline-engine motor home service operation is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the gasoline-engine motor home service operation is considered a part of an existing source.

Insignificant Activities:

(e) Plant 26-826 (white glove inspection area and dispatch) contains:

(1) White glove inspection, with a maximum capacity of 1 vehicle per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, and exhausting to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 white glove inspection operations are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the white glove inspection operations are considered considered a part of an existing source.

(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 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), for the units listed in the table below,

Plant	Description	Unit ID
26-826	four (4) inspection bays	-
	white glove inspection	insignificant activity
450	motor home assembly line	P450AO
854	gasoline-engine motor home service operation	-

when coating metal parts and products the Permittee shall not allow the discharge into the atmosphere VOC in excess of:

(a) Fifty-two hundredths (0.52) kilogram per liter (four and three-tenths (4.3) pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies clear coatings.

(b) Forty-two hundredths (0.42) kilogram per liter (three and five-tenths (3.5) pounds per gallon) of coating, excluding water, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to ninety (90) degrees Celsius (one hundred ninety-four (194) degrees Fahrenheit).

(c) Forty-two hundredths (0.42) kilogram per liter (three and five-tenths (3.5) pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings.

(d) Thirty-six hundredths (0.36) kilogram per liter (three (3) pounds per gallon) of coating, excluding water, delivered to a coating applicator for all other coatings and coating application systems.

Pursuant to 326 IAC 8-2-9(e), if more than one (1) of these emission limitations applies to a specific coating, then the least stringent emission limitation shall apply.

D.4.2 Volatile Organic Compounds (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be 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 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.4.3 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.

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

D.4.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Condition D.4.1 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.

D.4.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limit in Condition D.4.1, when using 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 for each unit listed in the table below:

Plant	Description	Unit ID
26-826	Four (4) inspection bays	-
	white glove inspection	-
450	motor home assembly line	P450AO
854	gasoline-engine motor home service operation	-

This volume weighted average for each unit shall be determined by the following equation:

$$A = [\sum (C \times U) / \sum U]$$

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.

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

D.4.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC content limits established in Condition D.4.1.

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

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

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

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

(3) The VOC content of each coating less water as applied.

(4) The volume weighted average VOC content less water of the coatings used for each day for each unit.

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

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f) Plant 450 (motor home assembly)

(1) One (1) woodworking operation, identified as P450WW, constructed in 2017, with a maximum capacity of 2,500 pounds of wood per hour, equipped with an integral dust collector for particulate control, and exhausting to stack P450DC1S or indoors.

(2) One (1) motor home assembly line applying sealants, caulks, and cleaners, identified as P450AO, formerly L1-Gold, constructed in 2012 and modified in 2017, with a maximum capacity of 1.5 vehicles per hour, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, P450AO is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, P450AO is considered a part of an existing source.

(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 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), for the motor home assembly line, identified as P450AO, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

D.5.2 Volatile Organic Compounds (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be 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 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.5.3 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.

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

D.5.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Condition D.5.1 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.

D.5.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limit in Condition D.5.1, when using 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 for each unit listed in the table below:

Plant	Description
450	Motor home assembly line (formerly L1-Gold)

This volume weighted average shall be determined by the following equation:

$$A = [\sum (C \times U) / \sum U]$$

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.

D.5.6 Particulate Control

In order to assure that the woodworking operation (P450WW) is not subject to the requirements of 326 IAC 6-3-2, the integral dust collector (P450DC1) for particulate control shall be in operation and control emissions from the woodworking operation (P450WW) at all times the woodworking operation (P450WW) is in operation.

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

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

D.5.7 Visible Emissions Notations

(a) Visible emission notations of dust collector (P450DC1) stack exhausts shall be performed once per day during normal daylight operations when exhausting outdoors. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.5.8 Broken or Failed Bag Detection

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

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

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

D.5.9 Baghouse Inspections

The Permittee shall perform semi-annual inspections when exhausting indoors of the dust collector controlling particulate from woodworking operation P450WW to verify that it is being operated and maintained in accordance with the manufacturer's specifications. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

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

D.5.10 Record Keeping Requirements

(a) To document the compliance status with Condition D.5.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC content limits established in Condition D.5.1.

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

(2) The amount of each coating material and solvent used on daily basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

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

(3) The VOC content of each coating less water as applied.

(4) The volume weighted average VOC content less water of the coatings used for each day.

(b) To document the compliance status with Condition D.5.7, the Permittee shall maintain records of daily visible emission notations of the baghouse(s) stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.5.9, the Permittee shall maintain records of the dates and results of the inspections.

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

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(b) Plant 2-35 (final paint plant) contains:

(C) One (1) natural gas-fired bake oven, identified as SV2-37, with a maximum heat input capacity of 4.0 MMBtu per hour;

Insignificant Activities:

(c) Plant 20-820 (welding and sidewall lamination) contains:

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

(A) One (1) natural gas-fired air makeup unit, identified as P820AM1, constructed in 2017, with a maximum heat input capacity of 0.028 MMBtu/hr, using no controls, and exhausting to stack P820AM1S.

(B) One (1) natural gas-fired thermo-cycler, identified as P820TC1, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, using no controls, and exhausting to stack P820TC1S.

(i) Plant 450 (motor home assembly):

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

(A) One (1) natural gas-fired space heater, identified as OH1, constructed in 2017, with a maximum heat input capacity of 0.12 MMBtu/hr, using no controls, and exhausting to stack OH1S.

(B) Two (2) natural gas-fired thermo-cyclers, identified as TC1 and TC2, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, each, using no controls, and exhausting to stacks TC1S and TC2S.

(C) One (1) natural gas-fired air makeup unit, identified as AM1, constructed in 2017, with a maximum heat input capacity of 0.97 MMBtu/hr, using no controls, and exhausting to stack AM1S.

(j) Plant 831 (lamination):

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

(A) Five (5) natural gas-fired thermo-cyclers, identified as P831TC1-P831TC5, constructed in 2017, with a maximum heat input capacity of 0.72 MMBtu/hr, each, using no controls, and exhausting to stacks P831TC1S-P831TC5S.

(B) One (1) natural gas-fired thermo-cycler, identified as P831TC6, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, using no controls, and exhausting to stack P831TC6S.

(C) One (1) natural gas-fired furnace, identified as P831SH1, constructed in 2017, with a maximum heat input capacity of 0.075 MMBtu/hr, using no controls, and exhausting to stack P831SH1S.

(D) Two (2) natural gas-fired furnaces, identified as P831SH2 and P831SH3, constructed in 2017, with a maximum heat input capacity of 0.09 MMBtu/hr, each, using no controls, and exhausting to stacks P831SH2S and P831SH3S.

(E) One (1) natural gas-fired furnace, identified as P831SH4, constructed in 2017, with a maximum heat input capacity of 0.11 MMBtu/hr, using no controls, and exhausting to stack P831SH4S.

(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 Particulate Emissions [326 IAC 6-2-4]

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

Emission Unit	Unit ID	Pt (lb/MMBtu)
Bake Oven	SV-37	0.6
Air makeup unit	P820AM1	0.6
Thermo-cycler	P820TC1	0.6
Space heater	OH1	0.6
Thermo-cycler	TC1	0.6
Thermo-cycler	TC2	0.6
Air makeup unit	AM1	0.6
Thermo-cycler	P831TC1	0.6
Thermo-cycler	P831TC2	0.6
Thermo-cycler	P831TC3	0.6
Thermo-cycler	P831TC4	0.6
Thermo-cycler	P831TC5	0.6
Thermo-cycler	P831TC6	0.6
Space heater	P831SH1	0.6
Space heater	P831SH2	0.6
Space heater	P831SH3	0.6
Space heater	P831SH4	0.6

D.6.2 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.

SECTION E.1 NSPS

Emissions Unit Description:

(j) Plant 831 (lamination):

(2) Emergency generators as follows:

(A) One (1) diesel emergency generator, identified as EG2, constructed in 2017, with a maximum engine output of 480 horsepower, using no controls, and exhausting to stack EG2S.

Under the NSPS, 40 CFR 60, Subpart IIII, the diesel emergency generator, identified as EG2, is an affected source.

Under the NESHAP, 40 CFR 63, Subpart ZZZZ, the diesel emergency generator, identified as EG2, is a new stationary RICE located at a major source of HAP emissions.

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

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

(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 Stationary Compression Ignition Internal Combustion Engines NSPS [326 IAC 12] [40 CFR Part 60, Subpart IIII]

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

(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
(6) 40 CFR 60.4211(a), (c), (f)(1), (f)(2)(i), (f)(3), and (g)(2)
(7) 40 CFR 60.4211
(8) 40 CFR 60.4212
(9) 40 CFR 60.4214(b)

(10) 40 CFR 60.4218
(11) 40 CFR 60.4219
(12) Table 8 to Subpart IIII of Part 60

SECTION E.2 **NESHAP**

Emissions Unit Description:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(2) One (1) sidewall adhesive application process, identified as SV1-6, with a maximum capacity of 1.5 vehicles per hour, using hand held non-atomizing applicators, with emissions uncontrolled, constructed in 1997. There is no direct exhaust route for this unit. A general ceiling vent, identified as SV1-6, is located in the vicinity.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the sidewall adhesive application process, identified as SV1-6 is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the sidewall adhesive application process, identified as SV1-6 is considered a part of an existing source.

(3) Three (3) manual assembly lines applying sealants, caulks, and cleaners, identified as Assembly Lines 1-Red, 2-Blue, and 3-White, with a maximum capacity of 3.5 vehicles per hour, each, using various hand tools, identified as D1-04, with emissions uncontrolled, all constructed in 1997, and exhausting to general ventilation vent GV1-01.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the manual assembly lines, identified as D1-04 are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the manual assembly lines, identified as D1-04 are considered considered a part of an existing source.

(b) Plant 2-35 (final paint plant) contains:

(1) One (1) full paint line, identified as Paint Line A, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-27, one (1) clearcoat booth, identified as SV2-28, and one (1) clearcoat/bake booth, identified as SV2-29, with a total maximum capacity of 10 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-27, SV2-28, and SV2-29, respectively; and

(B) Two (2) coating booths, identified as SV2-35 and SV2-36, applying basecoat and clear RTS using HVLP equipment or its equivalent, and controlled by dry filters; and

(2) One (1) full paint line, identified as Paint Line B, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-20, one (1) seal and base booth, identified as SV2-21, and one (1) paint stripe booth, identified as SV2-22, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-20, SV2-21, and SV-22, respectively; and

(B) One (1) prep and repair booth, identified as SV2-23, one (1) clear and bake booth, identified as SV2-24, one (1) sand and repair station, identified as SV2-25, and one (1) reclear and bake booth, identified as SV2-26, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-23A and SV2-23B, SV2-24A and SV2-24B, SV2-25A and SV2-25B, and SV2-26A and SV2-26B, respectively.

(3) One (1) full paint line, identified as Paint Line C, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-13, one (1) seal and base booth, identified as SV2-14, and one (1) paint stripe booth, identified as SV2-15, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-13, SV2-14, and SV2-15 respectively; and

(B) One (1) prep and repair booth, identified as SV2-16, one (1) clear and bake booth, identified as SV2-17, one (1) sand and repair station, identified as SV2-18, and one (1) reclear and bake booth, identified as SV2-19, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-16A and SV2-16B, SV2-17A and SV2-17B, SV2-18A and SV2-18B, and SV2-19A and SV2-19B, respectively.

(4) One (1) full paint line, identified as Paint Line D, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-7, and one (1) repair and stripe booth, identified as SV2-8, with a maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-7 and SV2-8, respectively; and

(B) One (1) slideout booth, identified as SV2-9, one (1) repair and clear booth, identified as SV2-10, one (1) sand and repair station, identified as SV2-11, and one (1) reclear booth, identified as SV2-12, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-9A and SV2-9B, SV2-10A and SV2-10B, SV2-11A and SV2-11B, and SV2-12A and SV2-12B, respectively.

(5) One (1) full paint line, identified as Paint Line E, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-1, and one (1) repair and stripe booth, identified as SV2-2, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-1 and SV2-2, respectively; and

(B) One (1) slideout booth, identified as SV2-3, one (1) repair and clear booth, identified as SV2-4, one (1) sand and repair station, identified as SV2-5, and one (1) reclear booth, identified as SV2-6, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-3A and SV2-3B, SV2-4A and SV2-4B, SV2-5A and SV2-5B, and SV2-6A and SV2-6B, respectively.

(6) One (1) repair line, consisting of:

(A) Three (3) paint repair booths, identified as SV2-30, SV2-31, and SV2-32, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, all using air-atomized spray applicators and dry filters as particulate control, all constructed in 1998, exhausting to stacks SV2-30, SV2-31, and SV2-32, respectively; and

(B) Two (2) paint repair booths, identified as SV2-33 and SV2-34, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, both using air-atomized spray applicators and dry filters as particulate control, both constructed in 2003, and exhausting to stacks SV2-33 and SV2-34, respectively.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 paint lines are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 paint lines are considered considered a part of an existing source.

(d) Plant 26-826 (white glove inspection area and dispatch) contains:

Four (4) inspection bays for final vehicle inspection, with a maximum capacity of 3.5 vehicles per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, constructed prior to 1981, with emissions exhausting through general ventilation to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 inspection bays are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 26-826 inspection bays are considered considered a part of an existing source.

(e) Plant 29-829 (diesel service center):

(1) Thirteen (13) diesel-engine motor home service bays, constructed prior to 1989, modified in 2000 and 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the diesel service center is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the diesel service center is considered a part of an existing source.

(f) Plant 450 (motor home assembly)

(2) One (1) motor home assembly line applying sealants, caulks, and cleaners, identified as P450AO, formerly L1-Gold, constructed in 2012 and modified in 2017, with a maximum capacity of 1.5 vehicles per hour, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, P450AO is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, P450AO is considered a part of an existing source.

(g) Plant 854 (gasoline service center)

(1) One (1) gasoline-engine motor home service operation, constructed in 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the gasoline-engine motor home service operation is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the gasoline-engine motor home service operation is considered a part of an existing source.

Insignificant Activities:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(2) Fiberglass cap windshield setting operations and repairs, with a maximum capacity of 3.5 vehicles per hour, using adhesives, with emissions uncontrolled, and exhausting to stack GV31-2.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the fiberglass cap windshield setting operations and repairs are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the fiberglass cap windshield setting operations and repairs are considered considered a part of an existing source.

(b) Plant 2-35 (final paint plant) contains:

(1) Two (2) paint prep areas, with a total maximum capacity of 4.5 vehicles and recreational vehicle components per hour, using solvents, cleaners, composites, and hand-sanding equipment for cleaning and body repair, using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, exhausting through general ventilation stacks GV2-3 through GV2-7.

(2) One (1) paint storage and mixing area, with a maximum capacity of 4.5 vehicles and recreational vehicle components per hour, with emissions uncontrolled, and exhausting to vents SV2-15 and SV2-16.

(3) One (1) final inspection area, consisting of two (2) lines, with a maximum capacity of 3.5 vehicles and recreational vehicle components per hour, using hand-held applicators to apply solvents, cleaners, sealants, adhesives, and paint, with emissions uncontrolled, constructed in 1998, and exhausting through general ventilation to stacks GV2-1 and GV2-2.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 insignificant activities are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 insignificant activities are considered considered a part of an existing source.

(e) Plant 26-826 (white glove inspection area and dispatch) contains:

(1) White glove inspection, with a maximum capacity of 1 vehicle per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, and exhausting to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 white glove inspection operations are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the white glove inspection operations are considered considered a part of an existing source.

(j) Plant 831 (lamination):

(3) Flow coat lamination machines as follows:

(A) One (1) flow coat lamination machine, identified as FCL1, permitted in 2010 and modified in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting to stack GV1-1

(B) One (1) flow coat lamination machine, identified as FCL2, permitted in 2015 and modified in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(C) One (1) flow coat lamination machine, identified as FCL3 (formerly GV32-1), permitted in 2010 and modified in 2017, with a maximum capacity of 3.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(D) Six (6) flow coat laminating machines, identified as FCL4-FCL9, constructed in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, each, using no controls and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the flow coat laminating machines, identified as FCL1-FCL9, are part of an existing affected source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the flow coat laminating machines, identified as FCL1-FCL9, are part of an existing affected source.

(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)]

E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1 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 MMMM.

(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.2.2 Surface Coating of Miscellaneous Metal Parts and Products NESHAP [40 CFR Part 63, Subpart MMMM] [326 IAC 20-80]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart MMMM (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 20-80, for the emission unit(s) listed above:

(1) 40 CFR 63.3880
(2) 40 CFR 63.3881(a)(1) through (3), (b), (c)(1), (c)(2), (c)(3), (c)(6), (e)
(3) 40 CFR 63.3882
(4) 40 CFR 63.3883
(5) 40 CFR 63.3890(a)(1), (a)(2), (b)(1), (b)(2), (c)
(6) 40 CFR 63.3891(a), (b)
(7) 40 CFR 63.3892(a)
(8) 40 CFR 63.3893(a)
(9) 40 CFR 63.3900(a)(1), (b)
(10) 40 CFR 63.3901
(11) 40 CFR 63.3910(a), (b), (c)(1) through (8), (c)(10), (c)(11)
(12) 40 CFR 63.3920(a)(1) through (6) and (f)
(13) 40 CFR 63.3930(a), (b), (c)(1), (c)(2), (c)(3), (c)(4)(v), (d), (e), (f), (g), (h), (j)
(14) 40 CFR 63.3931
(15) 40 CFR 63.3940
(16) 40 CFR 63.3941
(17) 40 CFR 63.3942
(18) 40 CFR 63.3950
(19) 40 CFR 63.3951
(20) 40 CFR 63.3952
(21) 40 CFR 63.3963(a), (b), (j)
(22) 40 CFR 63.3980
(23) 40 CFR 63.3981
(24) Table 2
(25) Table 3
(26) Table 4

SECTION E.3 NESHAP

Emissions Unit Description:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(2) One (1) sidewall adhesive application process, identified as SV1-6, with a maximum capacity of 1.5 vehicles per hour, using hand held non-atomizing applicators, with emissions uncontrolled, constructed in 1997. There is no direct exhaust route for this unit. A general ceiling vent, identified as SV1-6, is located in the vicinity.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the sidewall adhesive application process, identified as SV1-6 is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the sidewall adhesive application process, identified as SV1-6 is considered a part of an existing source.

(3) Three (3) manual assembly lines applying sealants, caulks, and cleaners, identified as Assembly Lines 1-Red, 2-Blue, and 3-White, with a maximum capacity of 3.5 vehicles per hour, each, using various hand tools, identified as D1-04, with emissions uncontrolled, all constructed in 1997, and exhausting to general ventilation vent GV1-01.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the manual assembly lines, identified as D1-04 are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the manual assembly lines, identified as D1-04 are considered considered a part of an existing source.

(11) One (1) touch-up painting operation, identified as P850TP, constructed in 2020, with a maximum capacity of 1.50 units/hr, using no controls, and exhausting indoors.

Under 40 CFR 63, Subpart PPPP, this is considered a part of an existing source.

(b) Plant 2-35 (final paint plant) contains:

(1) One (1) full paint line, identified as Paint Line A, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-27, one (1) clearcoat booth, identified as SV2-28, and one (1) clearcoat/bake booth, identified as SV2-29, with a total maximum capacity of 10 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-27, SV2-28, and SV2-29, respectively; and

(B) Two (2) coating booths, identified as SV2-35 and SV2-36, applying basecoat and clear RTS using HVLP equipment or its equivalent, and controlled by dry filters; and

(2) One (1) full paint line, identified as Paint Line B, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-20, one (1) seal and base booth, identified as SV2-21, and one (1) paint stripe booth, identified as SV2-22, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-20, SV2-21, and SV-22, respectively; and

(B) One (1) prep and repair booth, identified as SV2-23, one (1) clear and bake booth, identified as SV2-24, one (1) sand and repair station, identified as SV2-25, and one (1) reclear and bake booth, identified as SV2-26, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-23A and SV2-23B, SV2-24A and SV2-24B, SV2-25A and SV2-25B, and SV2-26A and SV2-26B, respectively.

(3) One (1) full paint line, identified as Paint Line C, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-13, one (1) seal and base booth, identified as SV2-14, and one (1) paint stripe booth, identified as SV2-15, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-13, SV2-14, and SV2-15 respectively; and

(B) One (1) prep and repair booth, identified as SV2-16, one (1) clear and bake booth, identified as SV2-17, one (1) sand and repair station, identified as SV2-18, and one (1) reclear and bake booth, identified as SV2-19, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-16A and SV2-16B, SV2-17A and SV2-17B, SV2-18A and SV2-18B, and SV2-19A and SV2-19B, respectively.

(4) One (1) full paint line, identified as Paint Line D, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-7, and one (1) repair and stripe booth, identified as SV2-8, with a maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-7 and SV2-8, respectively; and

(B) One (1) slideout booth, identified as SV2-9, one (1) repair and clear booth, identified as SV2-10, one (1) sand and repair station, identified as SV2-11, and one (1) reclear booth, identified as SV2-12, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-9A and SV2-9B, SV2-10A and SV2-10B, SV2-11A and SV2-11B, and SV2-12A and SV2-12B, respectively.

(5) One (1) full paint line, identified as Paint Line E, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-1, and one (1) repair and stripe booth, identified as SV2-2, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-1 and SV2-2, respectively; and

(B) One (1) slideout booth, identified as SV2-3, one (1) repair and clear booth, identified as SV2-4, one (1) sand and repair station, identified as SV2-5, and one (1) reclear booth, identified as SV2-6, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-3A and SV2-3B, SV2-4A and SV2-4B, SV2-5A and SV2-5B, and SV2-6A and SV2-6B, respectively.

(6) One (1) repair line, consisting of:

(A) Three (3) paint repair booths, identified as SV2-30, SV2-31, and SV2-32, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, all using air-atomized spray applicators and dry filters as particulate control, all constructed in 1998, exhausting to stacks SV2-30, SV2-31, and SV2-32, respectively; and

(B) Two (2) paint repair booths, identified as SV2-33 and SV2-34, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, both using air-atomized spray applicators and dry filters as particulate control, both constructed in 2003, and exhausting to stacks SV2-33 and SV2-34, respectively.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 paint lines are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 paint lines are considered considered a part of an existing source.

(d) Plant 26-826 (white glove inspection area and dispatch) contains:

Four (4) inspection bays for final vehicle inspection, with a maximum capacity of 3.5 vehicles per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, constructed prior to 1981, with emissions exhausting through general ventilation to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 inspection bays are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 26-826 inspection bays are considered considered a part of an existing source.

(e) Plant 29-829 (diesel service center):

(1) Thirteen (13) diesel-engine motor home service bays, constructed prior to 1989, modified in 2000 and 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the diesel service center is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the diesel service center is considered a part of an existing source.

(f) Plant 450 (motor home assembly)

(2) One (1) motor home assembly line applying sealants, caulks, and cleaners, identified as P450AO, formerly L1-Gold, constructed in 2012 and modified in 2017, with a maximum capacity of 1.5 vehicles per hour, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, P450AO is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, P450AO is considered a part of an existing source.

(g) Plant 854 (gasoline service center)

(1) One (1) gasoline-engine motor home service operation, constructed in 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the gasoline-engine motor home service operation is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the gasoline-engine motor home service operation is considered a part of an existing source.

Insignificant Activities:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(2) Fiberglass cap windshield setting operations and repairs, with a maximum capacity of 3.5 vehicles per hour, using adhesives, with emissions uncontrolled, and exhausting to stack GV31-2.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the fiberglass cap windshield setting operations and repairs are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the fiberglass cap windshield setting operations and repairs are considered considered a part of an existing source.

(b) Plant 2-35 (final paint plant) contains:

(1) Two (2) paint prep areas, with a total maximum capacity of 4.5 vehicles and recreational vehicle components per hour, using solvents, cleaners, composites, and hand-sanding equipment for cleaning and body repair, using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, exhausting through general ventilation stacks GV2-3 through GV2-7.

(2) One (1) paint storage and mixing area, with a maximum capacity of 4.5 vehicles and recreational vehicle components per hour, with emissions uncontrolled, and exhausting to vents SV2-15 and SV2-16.

(3) One (1) final inspection area, consisting of two (2) lines, with a maximum capacity of 3.5 vehicles and recreational vehicle components per hour, using hand-held applicators to apply solvents, cleaners, sealants, adhesives, and paint, with emissions

uncontrolled, constructed in 1998, and exhausting through general ventilation to stacks GV2-1 and GV2-2.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 insignificant activities are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 insignificant activities are considered considered a part of an existing source.

(e) Plant 26-826 (white glove inspection area and dispatch) contains:

(1) White glove inspection, with a maximum capacity of 1 vehicle per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, and exhausting to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 white glove inspection operations are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the white glove inspection operations are considered considered a part of an existing source.

(j) Plant 831 (lamination):

(3) Flow coat lamination machines as follows:

(A) One (1) flow coat lamination machine, identified as FCL1, permitted in 2010 and modified in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting to stack GV1-1

(B) One (1) flow coat lamination machine, identified as FCL2, permitted in 2015 and modified in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(C) One (1) flow coat lamination machine, identified as FCL3 (formerly GV32-1), permitted in 2010 and modified in 2017, with a maximum capacity of 3.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(D) Six (6) flow coat laminating machines, identified as FCL4-FCL9, constructed in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, each, using no controls and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the flow coat laminating machines, identified as FCL1-FCL9, are part of an existing affected source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the flow coat laminating machines, identified as FCL1-FCL9, are part of an existing affected source.

(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)]

E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1 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 PPPP.

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

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

E.3.2 Surface Coating of Plastic Parts and Products NESHAP [40 CFR Part 63, Subpart PPPP] [326 IAC 20-81]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart PPPP (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 20-81, for the emission unit(s) listed above:

(1) 40 CFR 63.4480
(2) 40 CFR 63.4481
(3) 40 CFR 63.4482(a), (b), and (e)
(4) 40 CFR 63.4483
(5) 40 CFR 63.4490(b)(1), (c)(1), and (c)(2)
(6) 40 CFR 63.4491(a) and (b)
(7) 40 CFR 63.4492(a)
(8) 40 CFR 63.4493(a)
(9) 40 CFR 63.4500(a)(1)
(10) 40 CFR 63.4510(c)(1) through (11)
(11) 40 CFR 63.4520(a) and (f)
(12) 40 CFR 63.4530(a), (b), (c), (d), (e), (f), and (g)
(13) 40 CFR 63.4531
(14) 40 CFR 63.4540
(15) 40 CFR 63.4541
(16) 40 CFR 63.4542
(17) 40 CFR 63.4550
(18) 40 CFR 63.4551
(19) 40 CFR 63.4552
(20) 40 CFR 63.4580
(21) 40 CFR 63.4581

SECTION E.3 NESHAP

Emissions Unit Description:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(1) Emergency generators as follows:

(A) One (1) Cummins Onan natural gas-fired emergency generator, with a maximum capacity of 60 kW and 80 hp, with emissions uncontrolled, constructed on or before January 28, 2004, and exhausting to stack SV1-7.

This unit is considered an existing affected source under 40 CFR 63, Subpart ZZZZ.

(g) Plant 35-833E (fire pump southeast of Plant 2-35) contains:

(1) One (1) diesel fire pump located southeast of Plant 2, with a maximum capacity of 140 HP, constructed in 1998.

Under 40 CFR 63, Subpart ZZZZ, this is considered a limited use existing source.

(j) Plant 831 (lamination):

(2) Emergency generators as follows:

(A) One (1) diesel emergency generator, identified as EG2, constructed in 2017, with a maximum engine output of 480 horsepower, using no controls, and exhausting to stack EG2S.

Under the NSPS, 40 CFR 60, Subpart IIII, the diesel emergency generator, identified as EG2, is an affected source.

Under the NESHAP, 40 CFR 63, Subpart ZZZZ, the diesel emergency generator, identified as EG2, is a new stationary RICE located at a major source of HAP emissions.

(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)]

E.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1 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 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.4.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment D to the operating permit), which are incorporated by reference as 326 IAC 20-82:

(a) Cummins Onan natural gas-fired emergency generator and diesel fire pump:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585(a), (b)
(3) 40 CFR 63.6590(a)(1)(ii)
(4) 40 CFR 63.6595(a)(1), (c)
(5) 40 CFR 63.6602
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(1), (e)(2), (f)(1),(2)(i),(3), (h), (i), (j)
(8) 40 CFR 63.6640(a), (b), (f)(1)-(3)
(9) 40 CFR 63.6645(a)(1)
(10) 40 CFR 63.6650(f)
(11) 40 CFR 63.6655(a)(1), (a)(2), (a)(4), (d), (e)(1), (e)(2), (f)(1)
(12) 40 CFR 63.6660
(13) 40 CFR 63.6665
(14) 40 CFR 63.6670
(15) 40 CFR 63.6675
(16) Table 2c-(1), (6)
(17) Table 6, 7, 8 and 9

(b) Diesel emergency generator, identified as EG2:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(2)(ii)
(4) 40 CFR 63.6590(c)(6)
(5) 40 CFR 63.6595(a)(5) and (c)
(6) 40 CFR 63.6640(f)(1). (2)(i), and (3)
(7) 40 CFR 63.6665
(8) 40 CFR 63.6670
(9) 40 CFR 63.6675

E.4.3 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.

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

Source Name: Thor Wakarusa, LLC
Source Address: 606 Nelsons Parkway, Wakarusa, Indiana 46573
Part 70 Permit No.: T 039-47470-00017

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:	
Email Address:	Phone:
Date:	

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	Thor Wakarusa, LLC
Source Address:	606 Nelsons Parkway, Wakarusa, Indiana 46573
Part 70 Permit No.:	T 039-47470-00017

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

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) 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 **Page 2 of 2**

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

Form Completed by: ____

Title / Position: ____

Date: ____

Phone: ____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
Part 70 Quarterly Report

Source Name: Thor Wakarusa, LLC
Source Address: 606 Nelsons Parkway, Wakarusa, Indiana 46573
Part 70 Permit No.: T039-47470-00017
Facility:

Plant	Emission Units (June 21, 2004)
Emission Units and Pollution Control Equipment Summary	
1-850	D1-01
	SV1-6
	D1-04
20-820	EU-20B
26-826	Four (4) inspection bays
	GV26-1 through GV26-4
29-829	Diesel service center Thirteen (13) inspection bays
	GV29-1 through GV29-4
Insignificant Activities	
1-850	Fiberglass cap windshield GV31-2
831	FCL1 (formerly GV1-1)
	FCL2
	FCL3 (formerly GV32-1)
20-820	25 Weld Stations GV20-2 through GV20-10
22-822	6 Weld Stations
26-826	White Glove Inspection GV26-1 through GV26-4
32-7/8	4 Weld Stations
Combustion Facilities	
1-850	Emergency Generator SV1-7
35-833E	Fire Pump

Parameter: VOC
Limit: Total VOC emissions from the emission units listed in the following table shall be restricted such that the VOC emissions shall not exceed 240.19 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : ________________ YEAR: ____________________

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

☐ 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: Thor Wakarusa, LLC
Source Address: 606 Nelsons Parkway, Wakarusa, Indiana 46573
Part 70 Permit No.: T039-47470-00017
Facility: Plant 2-35: Partial Paint Line A, Full Paint Lines B through E, repair line, cap assembly and undercoating, and the following insignificant activities paint prep, paint storage/mixing, final inspection and adhesive applicator
Parameter: VOC
Limit: The surface coating operations shall use, in aggregate, less than 539 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER:____________________YEAR:______________________

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

☐ 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: Thor Wakarusa, LLC
Source Address: 606 Nelsons Parkway, Wakarusa, Indiana 46573
Part 70 Permit No.: T 039-47470-00017

Months: ___________ to ____________ Year: ______________

Page 1 of 2

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

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

Form Completed by:____________________________________

Title / Position: ____________________________________

Date:____________________________________

Phone: ____________________________________

Attachment A

Part 70 Operating Permit No: 039-47470-00017

[Downloaded from the eCFR on March 29, 2023]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C, 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; 86 FR 34357, June 29, 2021]

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 1039.101, 1039.102, 1039.104, 1039.105, 1039.107, and 1039.115 and 40 CFR part 1039, appendix I, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, appendix I, for all pollutants, for the same displacement and rated 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) of this section may be certified to the provisions of 40 CFR part 1042 for commercial engines that are applicable for the engine's model year, displacement, power density, and maximum engine power 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 part 1039, appendix I, 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 37967, June 28, 2011; 81 FR 44219, July 7, 2016; 86 FR 34357, June 29, 2021]

§ 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 Tier 2 emission standards for new nonroad CI engines for the appropriate rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 for model year 2007 engines; and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 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 Tier 2 emission standards as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105.

(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 appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, appendix I, for all pollutants, for the same displacement and rated 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 ICE identified in paragraphs (a) and (c) of this section may be certified to the provisions of 40 CFR part 1042 for commercial engines that are applicable for the engine's model year, displacement, power density, and maximum engine power if the engines will be used solely in either or both of the locations identified in paragraphs (g)(1) and (2) of this section. Engines that would be subject to the Tier 4 standards in 40 CFR part 1042 that are used solely in either or both of the locations identified in paragraphs (g)(1) and (2) of this section may instead continue to be certified to the previous tier of standards in 40 CFR part 1042. The previous tier is Tier 3 in most cases; however, the previous tier is Tier 2 if there are no Tier 3 standards specified for engines of a certain size or power rating.

(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; 86 FR 34358, June 29, 2021; 88 FR 4471, Jan. 24, 2023]

§ 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 Tier 1 emission standards in 40 CFR part 1042, appendix I.

(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 NO_X in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NO_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) For engines installed on or after January 1, 2016, limit the emissions of NO_X 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 part 1039, appendix I, 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; 86 FR 34358, June 29, 2021]

§ 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 Tier 1 emission standards in 40 CFR part 1042, appendix I.

(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 NO_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_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).

(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; 86 FR 34358, June 29, 2021]

§ 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) [Reserved]

(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 1090.305 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 must use diesel fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under § 60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 85 FR 78463, Dec. 4, 2020]

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 1039, subpart C, and must test their engines as specified in 40 CFR part 1039. For the purposes of this subpart, engines certified to the standards in Table 1 to this subpart shall be subject to the same certification procedures required for engines certified to the Tier 1 standards in 40 CFR part 1039, appendix I. For the purposes of this subpart, engines certified to the standards in Table 4 to this subpart shall be subject to the same certification procedures required for engines certified to the Tier 1 standards in 40 CFR part 1039, appendix I, 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 1042, subpart C, and must test their engines as specified in 40 CFR part 1042.

(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 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 part 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 part 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 part 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 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 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 part 1039, appendix I, 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.

(k) Manufacturers of any size may certify their emergency stationary CI internal combustion engines under this section using assigned deterioration factors established by EPA, consistent with 40 CFR 1039.240 and 1042.240.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 81 FR 44219, July 7, 2016; 86 FR 34358, June 29, 2021]

§ 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 part 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 to emission standards for the same model year and maximum engine power as described in 40 CFR parts 1039 and 1042, as applicable. 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 NO_X 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 NO_X 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, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), 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 the purpose specified in paragraph (f)(2)(i) 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)-(iii) [Reserved]

(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 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.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 81 FR 44219, July 7, 2016; 86 FR 34359, June 29, 2021; 87 FR 48605, Aug. 10, 2022]

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. Alternatively, stationary CI ICE that are complying with Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or with Tier 2 emission standards as described in 40 CFR part 1042, appendix I, may follow the testing procedures specified in § 60.4213, as appropriate.

(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 subject to Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or Tier 2 emission standards as described in 40 CFR part 1042, appendix I, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR part 1039 or 1042, as applicable.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in § 60.4204(a), § 60.4205(a), or § 60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in § 60.4204(a), § 60.4205(a), or § 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) may follow the testing procedures specified in § 60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011; 86 FR 34359, June 29, 2021]

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:

C_i = concentration of NO_X or PM at the control device inlet,

C_o = concentration of NO_X or PM at the control device outlet, and

R = percent reduction of NO_X or PM emissions.

(2) You must normalize the NO_X 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.

$$C_{adj} = C_d \frac{5.9}{20.9 - \%\ O_2} \qquad \text{(Eq. 3)}$$

Where:

C_{adj} = Calculated NO_X or PM concentration adjusted to 15 percent O_2.

C_d = Measured concentration of NO_X or PM, uncorrected.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2 correction value, percent.

$\%O_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209_{F_d}}{F_c} \qquad \text{(Eq. 4)}$$

Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the NO_X and PM gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 6)}$$

Where:

C_{adj} = Calculated NO_X or PM concentration adjusted to 15 percent O_2.

C_d = Measured concentration of NO_X or PM, uncorrected.

$\%CO_2$ = Measured CO_2 concentration, dry basis, percent.

(e) To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 7)}$$

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_X concentration in ppm.

1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 8)}$$

Where:

ER = Emission rate in grams per KW-hour.

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 for the purpose 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)-(vi) [Reserved]

(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).

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013; 81 FR 44219, July 7, 2016; 87 FR 48606, Aug. 10, 2022]

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_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_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 Tier 2 or Tier 3 emission standards described in 40 CFR part 1042 for the same model year, displacement, and maximum engine power, as appropriate, rather than the otherwise applicable requirements of 40 CFR part 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 nonemergency CI ICE, the owner or operator of any such engine must have that engine certified as meeting at least the Tier 3 PM standards identified in appendix I of 40 CFR part 1039 or in 40 CFR 1042.101.

(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; 86 FR 34359, June 29, 2021]

§ 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 General Provisions and confidential information provisions apply to me?

(a) Table 8 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

(b) The provisions of 40 CFR 1068.10 and 1068.11 apply for engine manufacturers. For others, the general confidential business information (CBI) provisions apply as described in 40 CFR part 2.

[88 FR 4471, Jan. 24, 2023]

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 1042.101(e).

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)(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.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6696, Jan. 30, 2013; 81 FR 44219, July 7, 2016; 86 FR 34360, June 29, 2021; 87 FR 48606, Aug. 10, 2022]

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO_X + NMHC	CO	PM
KW<8 (HP<11)	2008 +	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008 +	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008 +	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)[1]
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

[1]Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011 +	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 +[1]	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 +[1]	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010 +[2]	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)

Maximum engine power	Model year(s)	NMHC + NO_X	CO	PM
	2009 +[3]	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 +[3]	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 +	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008 +	6.4 (4.8)		0.20 (0.15)

[1]For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[2]For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[3]In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed[1]	Torque (percent)[2]	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1]Engine speed: ±2 percent of point.

[2]Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:

Each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder	a. Reduce NO_X emissions by 90 percent or more;	i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device;		(a) For NO_X, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-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.
		ii. Measure O_2 at the inlet and outlet of the control device;	(1) 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 NO_X concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; 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 measurements for NO_X concentration.
		iv. Measure NO_X at the inlet and 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) NO_X 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.

Each	Complying with the requirement to	You must	Using	According to the following requirements
	b. Limit the concentration of NO_X 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 NO_X, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-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.
		ii. Determine the O_2 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 O_2 concentration must be made at the same time as the measurement for NO_X 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 NO_X concentration.
		iv. 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.	(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) NO_X 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.
	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 IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

Attachment B

Part 70 Operating Permit No: 039-47470-00017

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart MMMM—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products

SOURCE: 69 FR 157, Jan. 2, 2004, unless otherwise noted.

WHAT THIS SUBPART COVERS

§63.3880 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous metal parts and products surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§63.3881 Am I subject to this subpart?

(a) Miscellaneous metal parts and products include, but are not limited to, metal components of the following types of products as well as the products themselves: motor vehicle parts and accessories, bicycles and sporting goods, recreational vehicles, extruded aluminum structural components, railroad cars, heavy duty trucks, medical equipment, lawn and garden equipment, electronic equipment, magnet wire, steel drums, industrial machinery, metal pipes, and numerous other industrial, household, and consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any miscellaneous metal parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (6) of this section.

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

(2) The general use coating subcategory includes all surface coating operations that are not high performance, magnet wire, rubber-to-metal, or extreme performance fluoropolymer coating operations.

(3) The high performance coating subcategory includes surface coating operations that are performed using coatings that meet the definition of high performance architectural coating or high temperature coating in §63.3981.

(4) The magnet wire coating subcategory includes surface coating operations that are performed using coatings that meet the definition of magnet wire coatings in §63.3981.

(5) The rubber-to-metal coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of rubber-to-metal coatings in §63.3981.

(6) The extreme performance fluoropolymer coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of extreme performance fluoropolymer coatings in §63.3981.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.3882, that uses 946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in paragraph (a) of this section; and 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. You do not need to include coatings that meet the definition of non-HAP coating contained in §63.3981 in determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to §63.3941(a).

(2) Surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(3) Coatings used in volumes of less than 189 liters (50 gal) per year, provided that the total volume of coatings exempt under this paragraph does not exceed 946 liters (250 gal) per year at the facility.

(4) The surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).

(5) Surface coating where plastic is extruded onto metal wire or cable or metal parts or products to form a coating.

(6) Surface coating of metal components of wood furniture that meet the applicability criteria for wood furniture manufacturing (subpart JJ of this part).

(7) Surface coating of metal components of large appliances that meet the applicability criteria for large appliance surface coating (subpart NNNN of this part).

(8) Surface coating of metal components of metal furniture that meet the applicability criteria for metal furniture surface coating (subpart RRRR of this part).

(9) Surface coating of metal components of wood building products that meet the applicability criteria for wood building products surface coating (subpart QQQQ of this part).

(10) Surface coating of metal components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework (40 CFR part 63, subpart GG).

(11) Surface coating of metal parts intended for use in an aerospace vehicle or component using specialty coatings as defined in appendix A to subpart GG of this part.

(12) Surface coating of metal components of ships that meet the applicability criteria for shipbuilding and ship repair (subpart II of this part).

(13) Surface coating of metal using a web coating process that meets the applicability criteria for paper and other web coating (subpart JJJJ of this part).

(14) Surface coating of metal using a coil coating process that meets the applicability criteria for metal coil coating (subpart SSSS of this part).

(15) Surface coating of boats or metal parts of boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for boat manufacturing facilities (subpart VVVV of this part), except where the surface coating of the boat is a metal coating operation performed on personal watercraft or parts of personal watercraft. This subpart does apply to metal coating operations performed on personal watercraft and parts of personal watercraft.

(16) Surface coating of assembled on-road vehicles that meet the applicability criteria for the assembled on-road vehicle subcategory in plastic parts and products surface coating (40 CFR part 63, subpart PPPP).

(17) Surface coating of metal components of automobiles and light-duty trucks that meets the applicability criteria in §63.3082(b) for the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) at a facility that meets the applicability criteria in §63.3081(b).

(d) If your facility meets the applicability criteria in §63.3081(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII), and you perform surface coating of metal parts or products that meets both the applicability criteria in §63.3082(c) and the applicability criteria of the Surface Coating of Miscellaneous Metal Parts and Products (40 CFR part 63, subpart MMMM), then for the surface coating of any or all of your metal parts or products that meets the applicability criteria in §63.3082(c), you may choose to comply with the requirements of subpart IIII of this part in lieu of complying with the Surface Coating of Miscellaneous Metal Parts and Products NESHAP. Surface coating operations on metal parts or products (e.g., parts for motorcycles or lawnmowers) not intended for use in automobiles, light-duty trucks, or other motor vehicles as defined in §63.3176 cannot be made part of your affected source under subpart IIII of this part.

(e) If you own or operate an affected source that meets the applicability criteria of this subpart and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in this part you may choose to comply as specified in paragraph (e)(1), (2), or (3) of this section.

(1) You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) and (ii) of this section. However, you may not establish high performance, rubber-to-metal, or extreme performance fluoropolymer coating operations as the predominant activity. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining the predominant surface coating activity at your facility.

(i) If a surface coating operation accounts for 90 percent or more of the surface coating activity at your facility (that is, the predominant activity), then compliance with the emission limitations of the predominant activity for all surface coating operations constitutes compliance with these and other applicable surface coating NESHAP. In determining predominant activity, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(ii) You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.,* design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.3910(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by §63.3920(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in §63.3890. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit but must be included in the compliance calculations.

[69 FR 157, Jan. 2, 2004, as amended at 69 FR 22660, Apr. 26, 2004; 71 FR 76927, Dec. 22, 2006]

§63.3882 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in §63.3881(a).

(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 miscellaneous metal parts and products within each subcategory.

(1) All coating operations as defined in §63.3981;

(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after August 13, 2002 and the construction is of a completely new miscellaneous metal parts and products surface coating facility where previously no miscellaneous metal parts and products surface coating facility had existed.

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

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

§63.3883 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 demonstration described in §§63.3940, 63.3950, and 63.3960.

(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 January 2, 2004, the compliance date is January 2, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after January 2, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after January 2, 2004.

(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 January 2, 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 3 years after January 2, 2004, whichever is later.

(d) You must meet the notification requirements in §63.3910 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

§63.3890 What emission limits must I meet?

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (a)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.3941, §63.3951, or §63.3961.

(1) For each new general use coating affected source, limit organic HAP emissions to no more than 0.23 kilograms (kg) (1.9 pound (lb)) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(2) For each new high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(3) For each new magnet wire coating affected source, limit organic HAP emissions to no more than 0.050 kg (0.44 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(4) For each new rubber-to-metal coating affected source, limit organic HAP emissions to no more than 0.81 kg (6.8 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(5) For each new extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.3941, §63.3951, or §63.3961.

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(2) For each existing high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(3) For each existing magnet wire coating affected source, limit organic HAP emissions to no more than 0.12 kg (1.0 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(4) For each existing rubber-to-metal coating affected source, limit organic HAP emissions to no more than 4.5 kg (37.7 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(5) For each existing extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lbs) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(c) If your facility's surface coating operations meet the applicability criteria of more than one of the subcategory emission limits specified in paragraphs (a) or (b) of this section, you may comply separately with each subcategory emission limit or comply using one of the alternatives in paragraph (c)(1) or (2) of this section.

(1) If the general use or magnet wire surface coating operations subject to only one of the emission limits specified in paragraphs (a)(1), (3), (b)(1), or (3) of this section account for 90 percent or more of the surface coating activity at your facility (*i.e.,* it is the predominant activity at your facility), then compliance with that one emission limitations in this subpart for all surface coating operations constitutes compliance with the other applicable emission limits. You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.,* design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.3910(b). Additionally, you must determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by §63.3920(a).

(2) You may calculate and comply with a facility-specific emission limit as described in paragraphs (c)(2)(i) through (iii) of this section. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of the other subcategories and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(i) You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in §63.3910(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

(ii) Use Equation 1 of this section to calculate the facility-specific emission limit for your surface coating operations for each 12-month compliance period.

$$\textit{Facility-Specific}\ \text{Emission Limit} = \frac{\sum_{i=1}^{n}(\text{Limit}_i)(\textit{Solids}_i)}{\sum_{i=1}^{n}(\textit{Solids}_i)} \qquad (\textit{Eq}.\ 1)$$

Where:

Facility-specific emission limit = Facility-specific emission limit for each 12-month compliance period, kg (lb) organic HAP per kg (lb) coating solids used.

Limit_i = The new source or existing source emission limit applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) organic HAP per kg (lb) coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit must be in the same units.

$Solids_i$ = The liters (gal) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i. You may estimate the volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.,* design specifications for the parts or products coated and the number of items produced). The use of parameters other than coating consumption and volume solids content must be approved by the Administrator.

n = The number of different coating operations included in the facility-specific emission limit.

(iii) If you need to convert an emission limit in another surface coating NESHAP from kg (lb) organic HAP per kg (lb) coating solids used to kg (lb) organic HAP per liter (gal) coating solids used, you must use the default solids density of 1.26 kg solids per liter coating solids (10.5 lb solids per gal solids).

§63.3891 What are my options for meeting the emission limits?

You must include all coatings (as defined in §63.3981), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in §63.3890. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by §63.3930(c), and you must report it in the next semiannual compliance report required in §63.3920.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in §63.3890, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. You must meet all the requirements of §§63.3940, 63.3941, and 63.3942 to demonstrate compliance with the applicable emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§63.3950, 63.3951, and 63.3952 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in §63.3892, except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j), and that you meet the work practice standards required in §63.3893. You must meet all the requirements of §§63.3960 through 63.3968 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§63.3892 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to §63.3961(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and 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 §63.3967. You must meet the operating limits at all times after you establish them.

(c) 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).

§63.3893 What work practice standards must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s) for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. 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 and/or other additives, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels 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) As provided in §63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the work practice standards in this section.

General Compliance Requirements

§63.3900 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in §63.3891(a) and (b), must be in compliance with the applicable emission limit in §63.3890 at all times.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in §63.3891(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) Before January 5, 2021, the coating operation(s) must be in compliance with the applicable emission limit in §63.3890 at all times except during periods of SSM. On or after January 5, 2021, you must be in compliance with the applicable emission limits in §63. 3890 and the operating limits in table 1 of this subpart at all times.

(ii) Before January 5, 2021, the coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.3892 at all times except during periods of SSM and except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j). On or after January 5, 2021, the coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.3892 at all times, except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j).

(iii) The coating operation(s) must be in compliance with the work practice standards in §63.3893 at all times.

(b) Before January 5, 2021, 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). On and after January 5, 2021, at all times, the owner or operator 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 the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements 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 affected source.

(c) Before January 5, 2021, if your affected source uses an emission capture system and add-on control device, you must develop a written SSMP according to the provisions in §63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures. On and after January 5, 2021, the SSMP is not required.

[69 FR 157, Jan. 2, 2004, as amended at 71 FR 20465, Apr. 20, 2006; 85 FR 41138, July 8, 2020]

§63.3901 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

§63.3910 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) *Initial notification.* 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, 120 days after January 2, 2004, or no later than 120 days after the source becomes subject to this subpart, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after January 2, 2004, or no later than 120 days after the source becomes subject to this subpart, whichever is later. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under §63.3881(d) to constitute compliance with this subpart for any or all of your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under §63.3881(e)(2) to constitute compliance with this subpart for your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations. If you own or operate an existing loop slitter or flame lamination affected source, submit an initial notification no later than 120 days after April 14, 2003, or no later than 120 days after the source becomes subject to this subpart.

(c) *Notification of compliance status.* You must submit the notification of compliance status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §63.3940, §63.3950, or §63.3960 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) 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 §63.3940, §63.3950, or §63.3960 that applies to your affected source.

(4) Identification of the compliance option or options specified in §63.3891 that you used on each coating operation 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 the applicable emission limit in §63.3890, include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gal) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to §63.3941(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating, one thinner and/or other additive, and one leaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of §63.3951.

(8) The calculation of kg (lb) of organic HAP emitted per liter (gal) coating solids used for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 2 of §63.3941.

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total volume of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A through 1C, 2, and 3, respectively, of §63.3951.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month, using Equations 1 and 1A through 1C of §63.3951; the calculation of the total volume of coating solids used each month using Equation 2 of §63.3951; the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.3961 and Equations 2, 3, and 3A through 3C of

§63.3961 as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of §63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.3961.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j).

(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 protocol 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.

(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.

(iv) A statement of whether or not you developed and implemented the work practice plan required by §63.3893.

(10) If you are complying with a single emission limit representing the predominant activity under §63.3890(c)(1), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in §63.3890(c)(1).

(11) If you are complying with a facility-specific emission limit under §63.3890(c)(2), include the calculation of the facility-specific emission limit and any supporting information as specified in §63.3890(c)(2).

[69 FR 157, Jan. 2, 2004, as amended at 69 FR 22660, Apr. 26, 2004; 85 FR 73906, Nov. 19, 2020]

§63.3920 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 (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved or agreed to 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. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(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 §63.3940, §63.3950, or §63.3960 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date 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)(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 date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a 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)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission will 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 the affected source 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 (vii) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is 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. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in §63.3891 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§63.3891(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (§63.3890(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (§63.3890(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in §§63.3890, 63.3892, and 63.3893 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 the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (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: Compliant material option.* If you used the compliant material option and there was a deviation from the applicable organic HAP content requirements in §63.3890, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (v) of this section.

(i) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates, time and duration each was used.

(ii) The calculation of the organic HAP content (using Equation 2 of §63.3941) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.,* information provided by coating suppliers or manufacturers, or test reports).

(iii) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.,* information provided by material suppliers or manufacturers, or test reports).

(iv) Before January 5, 2021, a statement of the cause of each deviation. On and after January 5, 2021, a statement of the cause of each deviation (including unknown cause, if applicable).

(v) On and after January 5, 2021, the number of deviations and, for each deviation, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in §63.3890, a description of the method used to estimate the emissions, and the actions you took to minimize emissions in accordance with §63.3900(b).

(6) *Deviations: Emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in §63.3890, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iv) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of §63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4). You do not need to submit background data supporting these calculations (*e.g.,* information provided by materials suppliers or manufacturers, or test reports).

(iii) Before January 5, 2021, a statement of the cause of each deviation. On and after January 5, 2021, a statement of the cause of each deviation (including unknown cause, if applicable).

(iv) On and after January 5, 2021, the number of deviations and, for each deviation, the date, time, duration, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in §63.3890, a description of the method used to estimate the emissions, and the actions you took to minimize emissions in accordance with §63.3900(b).

(7) *Deviations: Emission rate with add-on controls option.* If you used the emission rate with add-on controls option and there was a deviation from the applicable emission limit in §63.3890 or the applicable operating limit(s) in table 1 to this subpart (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), before January 5, 2021, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiv) of this section. This includes periods of SSM during which deviations occurred. On and after January 5, 2021, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xii), (xiv), and (xv) of this section. If you use the emission rate with add-on controls option and there was a deviation from the applicable work practice standards in §63.3893(b), the semiannual compliance report must contain the information in paragraph (a)(7)(xiii) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of §63.3951; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.3961, and Equations 2, 3, and 3A through 3C of §63.3961, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation

4 of §63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.3961. You do not need to submit the background data supporting these calculations (*e.g.,* information provided by materials suppliers or manufacturers, or test reports).

(iii) The date and time that each malfunction of the capture system or add-on control devices started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) Before January 5, 2021, the date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks. On and after January 5, 2021, the number of instances that the CPMS was inoperative, and for each instance, except for zero (low-level) and high-level checks, the date, time, and duration that the CPMS was inoperative; the cause (including unknown cause) for the CPMS being inoperative; and the actions you took to minimize emissions in accordance with §63.3900(b).

(vii) Before January 5, 2021, the date, time, and duration that each CPMS was out-of-control, including the information in §63.8(c)(8). On and after January 5, 2021, the number of instances that the CPMS was out of control as specified in §63.8(c)(7) and, for each instance, the date, time, and duration that the CPMS was out-of-control; the cause (including unknown cause) for the CPMS being out-of-control; and descriptions of corrective actions taken.

(viii) Before January 5, 2021, the date and time period of each deviation from an operating limit in table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of SSM or during another period. On and after January 5, 2021, the number of deviations from an operating limit in table 1 to this subpart and, for each deviation, the date, time, and duration of each deviation; and the date, time, and duration of any bypass of the add-on control device.

(ix) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

(x) Before January 5, 2021, a breakdown of the total duration of the deviations from the operating limits in table 1 of this subpart and bypasses of the 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. On and after January 5, 2021, a breakdown of the total duration of the deviations from the operating limits in Table 1 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xiii) Before January 5, 2021, 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. On and after January 5, 2021, for deviations from the work practice standards, the number of deviations, and, for each deviation, the information in paragraphs (a)(7)(xiii)(A) and (B) of this section:

(A) A description of the deviation; the date, time, and duration of the deviation; and the actions you took to minimize emissions in accordance with §63.3900(b).

(B) The description required in paragraph (a)(7)(xiii)(A) of this section must include a list of the affected sources or equipment for which a deviation occurred and the cause of the deviation (including unknown cause, if applicable).

(xiv) Before January 5, 2021, statement of the cause of each deviation. On and after January 5, 2021, for deviations from an emission limit in §63.3890 or an operating limit in table 1 to this subpart, a statement of the cause of each deviation (including unknown cause, if applicable) and the actions you took to minimize emissions in accordance with §63.3900(b).

(xv) On and after January 5, 2021, for each deviation from an emission limit in §63.3890 or operating limit in table 1 to this subpart, a list of the affected sources or equipment for which a deviation occurred, an estimate of the quantity of each regulated pollutant emitted over any emission limit in §63.3890 or operating limit in table 1 to this subpart, and a description of the method used to estimate the emissions.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, 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).

(c) *SSM reports.* Before January 5, 2021, if you used the emission rate with add-on controls option and you had a SSM during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section. On and after January 5, 2021, the reports specified in paragraphs (c)(1) and (2) of this section are not required.

(1) If your actions were consistent with your startup, shutdown, and malfunction plan, 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 startup, shutdown, and malfunction plan, 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).

(d) *Performance test reports.* On and after January 5, 2021, you must submit the results of the performance test required in §§63.3940 and 63.3950 following the procedure specified in paragraphs (d)(1) through (3) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI interface 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 the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website 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, unless the Administrator agrees to or specifies an alternate reporting method.

(3) If you claim that some of the performance test information being submitted under paragraph (d)(1) of this section 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 website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium 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 in paragraph (d)(1) of this section.

(e) *Initial notification reports.* On and after January 5, 2021, the owner or operator shall submit the initial notifications required in §63.9(b) and the notification of compliance status required in §§63.9(h) and 63.3910(c) to the EPA via the CEDRI. The CEDRI interface can be accessed through the EPA's CDX (*https://cdx.epa.gov/*). The owner or operator must upload to CEDRI an electronic copy of each applicable notification in portable document format (PDF). The applicable notification must be submitted by the deadline specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the XML schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(f) *Semiannual compliance reports.* On and after January 5, 2021, or once the reporting template has been available on the CEDRI website for 1 year, whichever date is later, the owner or operator shall submit the semiannual compliance report required in paragraph (a) of this section to the EPA via the CEDRI. The CEDRI interface can be accessed through the EPA's CDX (*https://cdx.epa.gov/*). The owner or operator must use the appropriate electronic template on the CEDRI website for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri*). The date report templates become available will be listed on the CEDRI website. If the reporting form for the semiannual compliance report 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 addresses listed in §63.13. Once the form has been available in CEDRI for 1 year, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the XML schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(g) *Reporting during EPA system outages*. If you are required to electronically submit a report through the CEDRI in the EPA's CDX, and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of the EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time, and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of the EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(h) *Reporting during force majeure events.* If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.,* hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.,* large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41138, July 8, 2020]

§63.3930 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. If you are using the predominant activity alternative under §63.3890(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under §63.3890(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(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 and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. 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. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of §63.3941.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of §63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of §63.3951; and the calculation of each 12-month organic HAP emission rate using Equation 3 of §63.3951.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.3951 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4);

(ii) The calculation of the total volume of coating solids used each month using Equation 2 of §63.3951;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.3961 and Equations 2, 3, and 3A through 3C of §63.3961, as applicable;

(iv) The calculation of each month's organic HAP emission rate using Equation 4 of §63.3961; and

(v) The calculation of each 12-month organic HAP emission rate using Equation 5 of §63.3961.

(d) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.

(e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) If you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

(h) If you use an allowance in Equation 1 of §63.3951 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to §63.3951(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of §63.3951; a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of §63.3951.

(3) The methodology used in accordance with §63.3951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) [Reserved]

(j) Before January 5, 2021, you must keep records of the date, time, and duration of each deviation. On and after January 5, 2021, for each deviation from an emission limitation reported under §63.3920(a)(5) through (7), a record of the information specified in paragraphs (j)(1) through (4) of this section, as applicable.

(1) The date, time, and duration of the deviation, as reported under §63.3920(a)(5) through (7).

(2) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation, as reported under §63.3920(a)(5) through (7).

(3) An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in §63.3890 or any applicable operating limit in table 1 to this subpart, and a description of the method used to calculate the estimate, as reported under §63.3920(a)(5) through (7).

(4) A record of actions taken to minimize emissions in accordance with §63.3900(b) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(k) If you use the emission rate with add-on controls option, you must also keep the records specified in paragraphs (k)(1) through (8) of this section.

(1) Before January 5, 2021, for each deviation, a record of whether the deviation occurred during a period of SSM. On and after January 5, 2021, a record of whether the deviation occurred during a period of SSM is not required.

(2) Before January 5, 2021, the records in §63.6(e)(3)(iii) through (v) related to SSM. On and after January 5, 2021, the records in §63.6(e)(3)(iii) through (v) related to SSM are not required.

(3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.

(4) 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 §63.3965(a).

(5) 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 §§63.3964 and 63.3965(b) through (e), including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

(i) *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 204F 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 204E 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.

(ii) *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 204C 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 204E 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.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in §63.3965(e), if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.3966.

(i) Records of each add-on control device performance test conducted according to §§63.3964 and 63.3966.

(ii) 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.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.3967 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by §63.3893 and documentation that you are implementing the plan on a continuous basis.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41141, July 8, 2020]

§63.3931 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. On and after January 5, 2021, any records required to be maintained by this subpart that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). You may keep the records off-site for the remaining 3 years.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41141, July 8, 2020]

COMPLIANCE REQUIREMENTS FOR THE COMPLIANT MATERIAL OPTION

§63.3940 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 in §63.3941. The initial compliance period begins on the applicable compliance date specified in §63.3883 and ends on the last day of the 12th 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 that month plus the next 12 months. The initial compliance demonstration includes the calculations according to §63.3941 and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in §63.3890, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to §63.3941(a).

§63.3941 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in §63.3890 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, high performance, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning 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 in table 5 to this subpart that is measured to be present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other compounds. For example, if toluene (not listed in table 5 to this subpart) 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.,* 0.763).

(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. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in appendix A to subpart PPPP of this part, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in appendix A to subpart PPPP of this part, as a substitute for the 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 in table 5 to this subpart that is present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other compounds. For example, if toluene (not listed in table 5 to this subpart) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. 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, you demonstrate to the satisfaction of the enforcement agency that the formulation 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 test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these 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 according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (appendix A to 40 CFR part 63) 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, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters (gal) of coating solids per liter (gal) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in paragraphs (b)(1) through (4) of this section. If test results obtained according to paragraph (b)(1) of this section do not agree with the information obtained under paragraph (b)(3) or (4) of this section, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(1) *ASTM Method D2697-03 (Reapproved 2014) or D6093-97 (Reapproved 2016).* You may use ASTM D2697-03 (Reapproved 2014) (incorporated by reference, *see* §63.14), or D6093-97 (Reapproved 2016) (incorporated by reference, *see* §63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *Alternative method.* You may use an alternative test method for determining the solids content of each coating 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 obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(4) *Calculation of volume fraction of coating solids.* You may determine the volume fraction of coating solids using Equation 1 of this section:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad (Eq.\ 1)$$

Where:

V_s = Volume fraction of coating solids, liters (gal) coating solids per liter (gal) coating.

$m_{volatiles}$ = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM D1475-13 (incorporated by reference, *see* §63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM D1475-13 test results and other information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM D1475-13 (incorporated by reference, *see* §63.14), information from the supplier or manufacturer of the material, or specific gravity data for pure chemicals. If there is disagreement between ASTM D1475-13 test results and the supplier's or manufacturer's information, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(d) *Determine the organic HAP content of each coating.* Calculate the organic HAP content, kg (lb) of organic HAP emitted per liter (gal) coating solids used, of each coating used during the compliance period using Equation 2 of this section:

$$H_c = \frac{(D_c)(W_c)}{V_s} \qquad (Eq.\ 2)$$

Where:

H_c = Organic HAP content of the coating, kg organic HAP emitted per liter (gal) coating solids used.

D_c = Density of coating, kg coating per liter (gal) coating, determined according to paragraph (c) of this section.

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

V_s = Volume fraction of coating solids, liter (gal) coating solids per liter (gal) coating, determined according to paragraph (b) of this section.

(e) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in §63.3890; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§63.3930 and 63.3931. As part of the notification of compliance status required in §63.3910, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.3890, and you used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in paragraph (a) of this section.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41141, July 8, 2020]

§63.3942 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content (determined using Equation 2 of §63.3941) exceeds the applicable emission limit in §63.3890, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to §63.3941(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in §63.3940, is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under §63.3890(c), you must also perform the calculation using Equation 1 in §63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner and/or other additive, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(5).

(c) As part of each semiannual compliance report required by §63.3920, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the applicable emission limit in §63.3890, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.3890, and you used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to §63.3941(a).

(d) You must maintain records as specified in §§63.3930 and 63.3931.

COMPLIANCE REQUIREMENTS FOR THE EMISSION RATE WITHOUT ADD-ON CONTROLS OPTION

§63.3950 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 §63.3951. The initial compliance period begins on the applicable compliance date specified in §63.3883 and ends on the last day of the 12th 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 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to §63.3951 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.3890.

§63.3951 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in §63.3890, but is not required to meet the operating limits or work practice standards in §§63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the emission rate without add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in §63.3941(a).

(b) *Determine the volume fraction of coating solids.* Determine the volume fraction of coating solids (liter (gal) of coating solids per liter (gal) of coating) for each coating used during each month according to the requirements in §63.3941(b).

(c) *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM D1475-13 or ASTM D2111-10 (Reapproved 2015) (both incorporated by reference, *see* §63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM D5965-02 (Reapproved 2013) (incorporated by reference, *see* §63.14), or information from the supplier. If there is disagreement between ASTM D1475-13 or ASTM D2111-10 (Reapproved 2015) test results and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, and 1C of this section.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of this section.

$$H_e = A + B + C - R_w \qquad (Eq.\ 1)$$

Where:

H_e = Total mass of organic HAP emissions during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B of this section.

C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad (Eq.\ 1A)$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of this section:

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad (Eq.\ 1B)$$

Where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used during the month.

(3) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of this section:

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad (Eq.\ 1C)$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = Number of different cleaning materials used during the month.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this section, then you must determine the mass according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may only include waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of this section and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in §63.3930(h). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month, using Equation 2 of this section:

$$V_{st} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(V_{s,i}\right) \qquad (Eq.\ 2)$$

Where:

V_{st} = Total volume of coating solids used during the month, liters.

$Vol_{c,i}$ = 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 §63.3941(b).

m = Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per liter (gal) coating solids used, using Equation 3 of this section:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} V_{st}} \qquad (Eq.\ 3)$$

Where:

H_{yr} = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

H_e = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1 of this section.

V_{st} = Total volume of coating solids used during month, y, liters, as calculated by Equation 2 of this section.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(h) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in §63.3890 or the predominant activity or facility-specific emission limit allowed in §63.3890(c). You must keep all records as required by §§63.3930 and 63.3931. As part of the notification of compliance status required by §63.3910, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and 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 §63.3890, determined according to the procedures in this section.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41141, July 8, 2020]

§63.3952 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to §63.3951(a) through (g), must be less than or equal to the applicable emission limit in §63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.3950 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.3951(a) through (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under §63.3890(c), you must also perform the calculation using Equation 1 in §63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.3890, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(6).

(c) As part of each semiannual compliance report required by §63.3920, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (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 §63.3890, determined according to §63.3951(a) through (g).

(d) You must maintain records as specified in §§63.3930 and 63.3931.

COMPLIANCE REQUIREMENTS FOR THE EMISSION RATE WITH ADD-ON CONTROLS OPTION

§63.3960 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 §63.3883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j), you must conduct according to the schedule in paragraphs (a)(1)(i) and (ii) of this section initial and periodic performance tests of each capture system and add-on

control device according to the procedures in §§63.3964, 63.3965, and 63.3966 and establish the operating limits required by §63.3892. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.3961(j), you must initiate the first material balance no later than the applicable compliance date specified in §63.3883. For magnet wire coating operations, you may, with approval, conduct a performance test of one representative magnet wire coating machine for each group of identical or very similar magnet wire coating machines.

(i) You must conduct the initial performance test and establish the operating limits required by §63.3892 no later than 180 days after the applicable compliance date specified in §63.3883.

(ii) You must conduct periodic performance tests and establish the operating limits required by §63.3892 within 5 years following the previous performance test. You must conduct the first periodic performance test before July 8, 2023, unless you are already required to complete periodic performance tests as a requirement of renewing your facility's operating permit under 40 CFR part 70 or 40 CFR part 71 and have conducted a performance test on or after July 8, 2018. Thereafter you must conduct a performance test no later than 5 years following the previous performance test. Operating limits must be confirmed or reestablished during each performance test. For any control device for which you are using the catalytic oxidizer control option at §63.3967(b) and following the catalyst maintenance procedures in §63.3967(b)(4), you are not required to conduct periodic testing control device performance testing as specified by this paragraph. For any control device for which instruments are used to continuously measure organic compound emissions, you are not required to conduct periodic control device performance testing as specified by this paragraph.

(2) You must develop and begin implementing the work practice plan required by §63.3893 no later than the compliance date specified in §63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3961. The initial compliance period begins on the applicable compliance date specified in §63.3883 and ends on the last day of the 12th 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 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of 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 §§63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to §63.3961(j); calculations according to §63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3968; and documentation of whether you developed and implemented the work practice plan required by §63.3893.

(4) For the initial compliance demonstration, you do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.3892 until after you have completed the initial 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 continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits established based on the initial performance tests specified in paragraph (a)(1) of this section for your affected source on the date you complete the performance tests. For magnet wire coating operations, you must begin complying with the operating limits for all identical or very similar magnet wire coating machines on the date you complete the performance test of a representative magnet wire coating machine. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in §63.3961(j).

(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 §63.3883. Except for magnet wire coating operations and solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j), you must conduct according to the schedule in paragraphs (b)(1)(i) and (ii) of this section initial and periodic performance tests of each capture system and add-on control device according to the procedures in §§63.3964, 63.3965, and 63.3966 and establish the operating limits required by §63.3892. For magnet wire coating operations, you may, with approval, conduct a performance test of a single magnet wire coating machine that represents identical or very similar magnet

wire coating machines. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.3961(j), you must initiate the first material balance no later than the compliance date specified in §63.3883.

(i) You must conduct the initial performance test and establish the operating limits required by §63.3892 no later than 180 days after the applicable compliance date specified in §63.3883.

(ii) You must conduct periodic performance tests and establish the operating limits required by §63.3892 within 5 years following the previous performance test. You must conduct the first periodic performance test before July 8, 2020, unless you are already required to complete periodic performance tests as a requirement of renewing your facility's operating permit under 40 CFR part 70 or 40 CFR part 71 and have conducted a performance test on or after July 8, 2018. Thereafter you must conduct a performance test no later than 5 years following the previous performance test. Operating limits must be confirmed or reestablished during each performance test. For any control device for which you are using the catalytic oxidizer control option at §63.3967(b) and following the catalyst maintenance procedures in §63.3967(b)(4), you are not required to conduct periodic testing control device performance testing as specified by this paragraph. For any control device for which instruments are used to continuously measure organic compound emissions, you are not required to conduct periodic control device performance testing as specified by this paragraph.

(2) You must develop and begin implementing the work practice plan required by §63.3893 no later than the compliance date specified in §63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3961. The initial compliance period begins on the applicable compliance date specified in §63.3883 and ends on the last day of the 12th 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 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of 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 §§63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to §63.3961(j); calculations according to §63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3968; and documentation of whether you developed and implemented the work practice plan required by §63.3893.

(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 or control device. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section. You are still required to conduct a periodic performance test according to the applicable requirements of paragraphs (a)(1)(ii) and (b)(2)(ii) 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.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41142, July 8, 2020]

§63.3961 How do I demonstrate initial compliance?

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in §§63.3890, 63.3892, and 63.3893. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coatings operation(s) for which you use the emission rate with add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits.* Except as provided in §63.3960(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of paragraph (j) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.3892, using the procedures specified in §§63.3967 and 63.3968.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by §63.3893 during the initial compliance period, as specified in §63.3930.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in §63.3890 for each affected source in each subcategory.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in §63.3951(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner and/or other additive, and cleaning material used during each month; and the volume fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of §63.3951, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and/or other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *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 that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) 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 (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use Equation 1 of this section to calculate the 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. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. You must assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in §63.3963(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator. Equation 1 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.

$$H_C = \left(A_C + B_C + C_C - R_W - H_{UNC}\right)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \qquad (Eq.\ 1)$$

Where:

H_C = Mass of organic HAP emission reduction 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 1A of this section.

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg, as calculated in Equation 1B of this section.

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg, as calculated in Equation 1C of this section.

R_W = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to §63.3951(e)(4). (You may assign a value of zero to R_W if you do not wish to use this allowance.)

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in §63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D 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 §§63.3964 and 63.3965 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 §§63.3964 and 63.3966 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 (lb), using Equation 1A of this section:

$$A_C = \sum_{i=1}^{m}\left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad (Eq.\ 1A)$$

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.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners and/or other additives used in the controlled coating operation, kg (lb), using Equation 1B of this section:

$$B_C = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad (Eq.\ 1B)$$

Where:

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg per kg. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb), using Equation 1C of this section:

$$C_C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad (Eq.\ 1C)$$

Where:

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used in the controlled coating operation during deviations specified in §63.3963(c) and (d), using Equation 1D of this section:

$$H_{UNC} = \sum_{h=1}^{q} (Vol_h)(D_h)(W_h) \qquad (Eq.\ 1D)$$

Where:

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in §63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg.

Vol_h = Total volume of coating, thinner and/or other additive, or cleaning material, h, used in the controlled coating operation during deviations, liters.

D_h = Density of coating, thinner and/or other additives, or cleaning material, h, kg per liter.

W_h = Mass fraction of organic HAP in coating, thinner and/or other additives, or cleaning material, h, kg organic HAP per kg coating. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

q = Number of different coatings, thinners and/or other additives, and cleaning materials used.

(i) [Reserved]

(j) *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 organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are 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 (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(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, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner and/or other additive, and cleaning material 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 EPA Method 24 of 40 CFR part 60, appendix A-7, ASTM D2369-10 (Reapproved 2015)^e (incorporated by reference, *see* §63.14), 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 EPA Method 24 of 40 CFR part 60, appendix A-7, ASTM D2369-10 (Reapproved 2015)^e, or an approved alternative method, the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(4) Determine the density of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to §63.3951(c).

(5) Measure the volume of each coating, thinner and/or other additive, and cleaning material 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 2 of this section:

$$R_V = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j} + \sum_{k=1}^{p} Vol_k D_k WV_{s,k}} \qquad (Eq.\ 2)$$

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.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

Vol_j = Volume of thinner and/or other additive, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_j = Density of thinner and/or other additive, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner and/or other additive, j, kg volatile organic matter per kg thinner and/or other additive. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

Vol_k = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_k = Density of cleaning material, k, kg per liter.

$WV_{s,k}$ = Mass fraction of volatile organic matter for cleaning material, k, kg volatile organic matter per kg cleaning material.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month.

p = Number of different cleaning materials 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 3 of this section and according to paragraphs (j)(7)(i) through (iii) of this section:

$$H_{CSR} = \left(A_{CSR} + B_{CSR} + C_{CSR}\right)\left(\frac{R_V}{100}\right) \qquad (Eq.\ 3)$$

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 3A of this section.

B_{CSR} = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3C of this section.

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 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 3A of this section.

$$A_{CSR} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad (Eq.\ 3A)$$

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.

$Vol_{c,i}$ = 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 organic HAP per kg coating. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, using Equation 3B of this section:

$$B_{CSR} = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad (Eq.\ 3B)$$

Where:

B_{CSR} = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg lb organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used.

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg, using Equation 3C of this section:

$$C_{CSR} = \sum_{k=1}^{p} \left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \qquad (Eq.\ 3C)$$

Where:

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg cleaning material.

p = Number of different cleaning materials used.

(k) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of §63.3951.

(l) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, kg, during each month, using Equation 4 of this section:

$$H_{HAP} = H_e - \sum_{i=1}^{q}\left(H_{c,i}\right) - \sum_{j=1}^{r}\left(H_{CSR,j}\right) \qquad (Eq.\ 4)$$

where:

H_{HAP} = Total mass of organic HAP emissions for the month, kg.

H_e = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners and/or other additives, and cleaning materials used during the month, kg, determined according to paragraph (f) of this section.

$H_{C,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg, from Equation 1 of this section.

$H_{CSR,j}$ = 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 3 of this section.

q = Number of controlled coating operations not controlled by a solvent recovery system using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

(m) *Calculate the organic HAP emission rate for the compliance period.* Determine the organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per liter (gal) coating solids used, using Equation 5 of this section:

$$H_{annual} = \frac{\sum_{y=1}^{n} H_{HAP,y}}{\sum_{y=1}^{n} V_{st,y}} \qquad (Eq.\ 5)$$

Where:

H_{annual} = Organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

$H_{HAP,y}$ = Organic HAP emissions for month, y, kg, determined according to Equation 4 of this section.

$V_{st,y}$ = Total volume of coating solids used during month, y, liters, from Equation 2 of §63.3951.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in §63.3890 or the predominant activity or facility-specific emission limit allowed in §63.3890(c). You must keep all records as required by §§63.3930 and 63.3931. As part of the notification of compliance status required by §63.3910, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and 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 §63.3890, and you achieved the operating limits required by §63.3892 and the work practice standards required by §63.3893.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41143, July 8, 2020]

§63.3962 [Reserved]

§63.3963 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in §63.3890, the organic HAP emission rate for each compliance period, determined according to the procedures in §63.3961, must be equal to or less than the applicable emission limit in §63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.3960 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.3961 on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under §63.3890(c), you must also perform the calculation using Equation 1 in §63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.3890, this is a deviation from the emission limitation for that compliance period that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by §63.3892 that applies to you, as specified in Table 1 to this subpart, when the coating line is in operation.

(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 §§63.3910(c)(6) and 63.3920(a)(7).

(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, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator.

(d) You must meet the requirements for bypass lines in §63.3968(b) for controlled coating operations for which you do not 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 §§63.3910(c)(6) and 63.3920(a)(7). For the purposes of completing the compliance calculations specified in §§63.3961(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of §63.3961.

(e) You must demonstrate continuous compliance with the work practice standards in §63.3893. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by

§63.3930(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(7).

(f) As part of each semiannual compliance report required in §63.3920, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limits in §63.3890, the operating limits in §63.3892, and the work practice standards in §63.3893, submit a statement 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 §63.3890, and you achieved the operating limits required by §63.3892 and the work practice standards required by §63.3893 during each compliance period.

(g)-(h) [Reserved]

(i) On and after January 5, 2021, deviations that occur due to malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are required to operate in accordance with §63.3900(b). The Administrator will determine whether the deviations are violations according to the provisions in §63.3900(b).

(j) You must maintain records as specified in §§63.3930 and 63.3931.

[69 FR 157, Jan. 2, 2004, as amended at 71 FR 20465, Apr. 20, 2006; 85 FR 41143, July 8, 2020]

§63.3964 What are the general requirements for performance tests?

(a) Before January 5, 2021, you must conduct each performance test required by §63.3960 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). On and after January 5, 2021, you must conduct each performance test required by §63.3960 according to the requirements 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 periods of nonoperation do not constitute representative conditions for purposes of conducting a performance test. The owner or operator may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(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 §63.3965. You must conduct each performance test of an add-on control device according to the requirements in §63.3966.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41143, July 8, 2020]

§63.3965 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 each performance test required by §63.3960.

(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, thinners and/or other additives, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off, curing, and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to 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 three protocols described in paragraphs (c), (d), and (e) 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 the production, which includes surface preparation activities and drying and 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, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials 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 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner and/or other additive, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term VOC in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings, thinners and/or other additives, and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad (Eq.\ 1)$$

Where:

TVH_{used} = Mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg.

TVH_i = Mass fraction of TVH in coating, thinner and/or other additive, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = Total volume of coating, thinner and/or other additive, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating, thinner and/or other additive, or cleaning material, i, kg material per liter material.

n = Number of different coatings, thinners and/or other additives, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or 204E 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 of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR 51 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:

$$CE = \frac{\left(TVH_{used} - TVH_{uncaptured}\right)}{TVH_{used}} \times 100 \qquad \text{(Eq. 2)}$$

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, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials 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 204C 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 204C 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 measured in each duct and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E 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 of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR part 51 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:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + \mathrm{TVH}_{\mathrm{uncaptured}}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = 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.

$TVH_{uncaptured}$ = 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.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section and subject to the approval of the Administrator, 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.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41143, July 8, 2020]

§63.3966 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 §63.3960. For each performance test, you must conduct three test runs as specified in §63.7(e)(3) and each test run must last at least 1 hour. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

(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.

(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 EPA Method 25 or 25A of appendix A-7 to 40 CFR part 60.

(1) Use EPA Method 25 of appendix A-7 to 40 CFR part 60 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 (ppm) at the control device outlet.

(2) Use EPA Method 25A of appendix A-7 to 40 CFR part 60 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use EPA Method 25A of appendix A-7 to 40 CFR part 60 if the add-on control device is not an oxidizer.

(4) You may use EPA Method 18 of appendix A-6 to 40 CFR part 60 to subtract methane emissions from measured total gaseous organic mass emissions as carbon.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet to the atmosphere of each device. For example, if one add-on control device is a concentrator with an outlet to the atmosphere 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 to the atmosphere 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:

$$M_f = Q_{sd} C_c (12)\ (0.0416)\ \left(10^{-6}\right) \qquad (Eq.\ 1)$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg per hour (h).

C_c = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (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/hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 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:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = 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.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41143, July 8, 2020]

§63.3967 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by §63.3960 and described in §§63.3964, 63.3965, and 63.3966, you must establish the operating limits required by §63.3892 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.3892.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During performance tests, 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) For each performance test, use the 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 operating limit for your 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) and (2) or paragraphs (b)(3) and (4) of this section. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

(1) During performance tests, 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) For each performance test, use the 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. These are the minimum operating limits for your catalytic oxidizer.

(3) You must 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)(4) 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. For each performance test, use the 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.

(4) 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)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(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 §63.3966. 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 regenerative 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 performance tests, 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) For each performance test, use the 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 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) through (4) of this section.

(1) During performance tests, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) For each performance test, use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During performance tests, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) For each performance test, use the data collected during the performance test to calculate and record the average pressure drop. This is the minimum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of §63.3965(a), 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. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) During the capture efficiency determination required by §63.3960 and described in §§63.3964 and 63.3965, 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. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41144, July 8, 2020]

§63.3968 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) Before January 5, 2021, you must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment. On and after January 5, 2021, you must maintain the CPMS at all times in accordance with §63.3900(b) and keep necessary parts readily available for routine repairs of the monitoring equipment.

(5) Before January 5, 2021, 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). On and after January 5, 2021, you must operate the CPMS and collect emission capture system and add-on control device parameter data at all times in accordance with §63.3900(b).

(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. Before January 5, 2021, 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. On and after January 5, 2021, except for periods of required quality assurance or control activities, any period for which the CPMS fails to operate and record data continuously as required by paragraph (a)(5) of this section, or generates data that cannot be included in calculating averages as specified in (a)(6) of this section constitutes 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 (v) 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 to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(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.

(v) *Flow direction indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow direction 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. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator must be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

(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 §63.3920.

(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 with concentrators or with carbon adsorbers to treat desorbed concentrate streams), 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 gas temperature monitors upstream and/or downstream of the catalyst bed as required in §63.3967(b).

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (v) of this section for each gas temperature monitoring device. For the purposes of this paragraph (c)(3), a thermocouple is part of the temperature sensor.

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

(ii) Use a temperature sensor with a measurement sensitivity of 5 degrees Fahrenheit or 1.0 percent of the temperature value, whichever is larger.

(iii) Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

(iv) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

(v) Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(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) through (3) 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 be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(3) For all regenerative carbon adsorbers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (g)(2) 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. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (vii) 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) Use a flow sensor with an accuracy of at least 10 percent of the flow.

(iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.

(iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

(v) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

(vi) Perform leak checks monthly.

(vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41144, July 8, 2020]

OTHER REQUIREMENTS AND INFORMATION

§63.3980 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the 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 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 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 requirements in §§63.3881 through 3883 and 63.3890 through 3893.

(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.

§63.3981 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (*e.g.,* catalysts, activators, accelerators).

Add-on control 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.

Adhesive, adhesive coating means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Assembled on-road vehicle coating means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use including, but not limited to, components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles (including camping trailers and fifth wheels). Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment, or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the automobiles and light-duty trucks NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles.

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 or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, 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.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (*e.g.,* depainting or paint stripping), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, 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, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coatings solids means the nonvolatile portion of the coating that makes up the dry film.

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 an emission capture system and add-on control device.

Deviation means:

(1) Before January 5, 2021, 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 requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;

(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; or

(iii) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart; and

(2) On and after January 5, 2021, 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 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.

Emission limitation means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Extreme performance fluoropolymer coating means coatings that are formulated systems based on fluoropolymer resins which often contain bonding matrix polymers dissolved in non-aqueous solvents as well as other ingredients. Extreme performance fluoropolymer coatings are typically used when one or more critical performance criteria are required including, but not limited to a nonstick low-energy surface, dry film lubrication, high resistance to chemical attack, extremely wide operating temperature, high electrical insulating properties, or that the surface comply with government (*e.g.,* USDA, FDA) or third party specifications for health, safety, reliability, or performance. Once applied to a substrate, extreme performance fluoropolymer coatings undergo a curing process that typically requires high temperatures, a chemical reaction, or other specialized technology.

Facility maintenance means the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

General use coating means any material that meets the definition of coating but does not meet the definition of high performance coating, rubber-to-metal coating, magnet wire coating, or extreme performance fluoropolymer coating as defined in this section.

High performance architectural coating means any coating applied to architectural subsections which is required to meet the specifications of Architectural Aluminum Manufacturer's Association's publication number AAMA 605.2-2000.

High performance coating means any coating that meets the definition of high performance architectural coating or high temperature coating in this section.

High temperature coating means any coating applied to a substrate which during normal use must withstand temperatures of at least 538 degrees Celsius (1000 degrees Fahrenheit).

Hobby shop means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

Magnet wire coatings, commonly referred to as magnet wire enamels, are applied to a continuous strand of wire which will be used to make turns (windings) in electrical devices such as coils, transformers, or motors. Magnet wire coatings provide high dielectric strength and turn-to-turn conductor insulation. This allows the turns of an electrical device to be placed in close proximity to one another which leads to increased coil effectiveness and electrical efficiency.

Magnet wire coating machine means equipment which applies and cures magnet wire coatings.

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 §63.3941. 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.

Non-HAP coating means, for the purposes of this subpart, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is listed in Table 5 to this subpart and no more than 1.0 percent by mass for any other individual HAP.

Organic HAP content means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using Equation 2 of §63.3941. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

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.

Personal watercraft means a vessel (boat) which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing, or kneeling on the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

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. Protective oils used on miscellaneous metal parts and products include magnet wire lubricants and soft temporary protective coatings that are removed prior to installation or further assembly of a part or component.

Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in 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.

Rubber-to-metal coatings are coatings that contain heat-activated polymer systems in either solvent or water that, when applied to metal substrates, dry to a non-tacky surface and react chemically with the rubber and metal during a vulcanization process.

Startup, initial means the first time equipment is brought online in a facility.

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.

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.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F 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.

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.

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 the volume of nonvolatiles) to the volume of a coating in which it is contained; liters (gal) of coating solids per liter (gal) of coating.

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

[69 FR 157, Jan. 2, 2004, as amended at 85 FR 41144, July 8, 2020]

Table 1 to Subpart MMMM of Part 63—Operating Limits if Using the Emission Rate With Add-On Controls Option

If you are required to comply with operating limits by §63.3892(c), you must comply with the applicable operating limits in the following table:

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3967(a)	i. Collecting the combustion temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.3967(b) (for magnet wire coating machines, temperature can be monitored before or after the catalyst bed); and either	i. Collecting the temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before (or for magnet wire coating machines after) the catalyst bed at or above the temperature limit.
	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 §63.3967(b) (2); or	i. Collecting the temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	c. Develop and implement an inspection and maintenance plan according to §63.3967(b)(4) or for magnet wire coating machines according to section 3.0 of appendix A to this subpart	i. Maintaining and up-to-date inspection and 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 §63.3967(b)(4) or for magnet wire coating machines by section 3.0 of appendix A to this subpart, you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber	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 §63.3967(c); and	i. Measuring the total regeneration desorbing gas (*e.g.,* steam or nitrogen) mass flow for each regeneration cycle according to §63.3968(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	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 §63.3967(c)	i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.3968(d); and 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.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.3967(d)	i. Collecting the condenser outlet (product side) gas temperature according to §63.3968(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
5. Concentrators, including zeolite wheels and rotary carbon adsorbers	a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to §63.3967(e); and	i. Collecting the temperature data according to 63.3968(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature at or above the temperature limit.
	b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to §63.3967(e)	i. Collecting the pressure drop data according to 63.3968(f); ii. Reducing the pressure drop data to 3-hour block averages; and iii. Maintaining the 3-hour average pressure drop at or above the pressure drop limit.
6. Emission capture system that is a PTE according to §63.3965(a)	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.3968(b)(1) or the pressure drop across the enclosure according to §63.3968(g)(2); and ii. Maintaining the facial velocity of air flow 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 into the enclosure at all times.
	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minutes; or	i. See items 6.a.i and 6.a.ii.
	c. The pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 CFR part 51	i. See items 6.a.i and 6.a.ii.
7. Emission capture system that is not a PTE according to §63.3965(a)	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 §63.3967(f)	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.3968(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 limited.

Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63

You must comply with the applicable General Provisions requirements according to the following table:

Citation	Subject	Applicable to subpart MMMM	Explanation
§63.1(a)(1)-(14)	General Applicability	Yes	
§63.1(b)(1)-(3)	Initial Applicability Determination	Yes	Applicability to subpart MMMM is also specified in §63.3881.
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)-(3)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to subpart MMMM.

Citation	Subject	Applicable to subpart MMMM	Explanation
§63.1(c)(4)-(5)	Extensions and Notifications	Yes	
§63.1(c)(6)	Reclassification	Yes	
§63.1(e)	Applicability of Permit Program Before Relevant Standard is Set	Yes	
§63.2	Definitions	Yes	Additional definitions are specified in §63.3981.
§63.1(a)-(c)	Units and Abbreviations	Yes	
§63.4(a)(1)-(5)	Prohibited Activities	Yes	
§63.4(b)-(c)	Circumvention/Severability	Yes	
§63.5(a)	Construction/Reconstruction	Yes	
§63.5(b)(1)-(6)	Requirements for Existing Newly Constructed, and Reconstructed Sources	Yes	
§63.5(d)	Application for Approval of Construction/Reconstruction	Yes	
§63.5(e)	Approval of Construction/Reconstruction	Yes	
§63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review	Yes	
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes	
§63.6(b)(1)-(7)	Compliance Dates for New and Reconstructed Sources	Yes	Section 63.3883 specifies the compliance dates.
§63.6(c)(1)-(5)	Compliance Dates for Existing Sources	Yes	Section 63.3883 specifies the compliance dates.
§63.6(e)(1)-(2)	Operation and Maintenance	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.3900(b) for general duty requirement.
§63.6(e)(3)	SSMP	Yes before January 5, 2021. No on and after January 5, 2021	
§63.6(f)(1)	Compliance Except During SSM	Yes before January 5, 2021. No on and after January 5, 2021	
§63.6(f)(2)-(3)	Methods for Determining Compliance.	Yes	
§63.6(g)(1)-(3)	Use of an Alternative Standard	Yes	

Citation	Subject	Applicable to subpart MMMM	Explanation
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart MMMM does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i)(1)-(16)	Extension of Compliance	Yes	
§63.6(j)	Presidential Compliance Exemption	Yes	
§63.7(a)(1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§63.3964, 63.3965, and 63.3966.
§63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. Section 63.3960specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§63.7(a)(3)-(4)	Performance Tests Required By the Administrator, Force Majeure	Yes	
§63.7(b)-(d)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§63.7(e)(1)	Conduct of Performance Tests	Yes before January 5, 2021. No on and after January 5, 2021	*See* §§63.3964.
§63.7(e)(2)-(4)	Conduct of Performance Tests	Yes	
§63.7(f)	Performance Test Requirements—Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
§63.7(g)-(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§63.8(a)(1)-(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in §63.3968.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart MMMM does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes	

Citation	Subject	Applicable to subpart MMMM	Explanation
§63.8(c)(1)	Continuous Monitoring System (CMS) Operation and Maintenance	Yes before January 5, 2021. No on and after January 5, 2021	Section 63.3968 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(2)-(3)	CMS Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in §63.3968.
§63.8(c)(4)	CMS	No	§63.3968 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(5)	COMS	No	Subpart MMMM does not have opacity or visible emission standards.
§63.8(c)(6)	CMS Requirements	No	Section 63.3968 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(7)	CMS Out-of-Control Periods	Yes	
§63.8(c)(8)	CMS Out-of-Control Periods and Reporting	No	§63.3920 requires reporting of CMS out-of-control periods.
§63.8(d)-(e)	Quality Control Program and CMS Performance Evaluation	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)-(5)	Use of an Alternative Monitoring Method	Yes	
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§63.8(g)(1)-(5)	Data Reduction	No	Sections 63.3967 and 63.3968 specify monitoring data reduction.
§63.9(a)-(d)	Notification Requirements	Yes	
§63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart MMMM does not have opacity or visible emissions standards.
§63.9(g)(1)-(3)	Additional Notifications When Using CMS	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§63.9(h)	Notification of Compliance Status	Yes	Section 63.3910 specifies the dates for submitting the notification of compliance status.

Citation	Subject	Applicable to subpart MMMM	Explanation
§63.9(i)	Adjustment of Submittal Deadlines	Yes	
§63.9(j)	Change in Previous Information	Yes	
§63.9(k)	Electronic reporting procedures	Yes	Only as specified in §63.9(j).
§63.10(a)	Recordkeeping/Reporting—Applicability and General Information	Yes	
§63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§63.3930 and 63.3931.
§63.10(b)(2)(i)-(ii)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns and of Failures to Meet Standards	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.3930(j).
§63.10(b)(2)(iii)	Recordkeeping Relevant to Maintenance of Air Pollution Control and Monitoring Equipment	Yes	§63.10(b)(2)(iii).
§63.10(b)(2)(iv)-(v)	Actions Taken to Minimize Emissions During SSM	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.3930(j) for a record of actions taken to minimize emissions duration a deviation from the standard.
§63.10(b)(2)(vi)	Recordkeeping for CMS Malfunctions	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.3930(j) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§63.10(b)(2)(xii)	Records	Yes	
§63.10(b)(2)(xiii)		No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§63.10(b)(2)(xiv)		Yes	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	
§63.10(c)(1)-(6)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
§63.10(c)(7)-(8)	Additional Recordkeeping Requirements for Sources with CMS	No	*See* §63.3930(j) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§63.10(c)(10)-(14)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
§63.10(c)(15)	Records Regarding the SSMP	Yes before January 5, 2021. No on and after January 5, 2021	

Citation	Subject	Applicable to subpart MMMM	Explanation
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.3920.
§63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in §63.3920(b) and (d).
§63.10(d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart MMMM does not require opacity or visible emissions observations.
§63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	Yes	
§63.10(d)(5)	SSM Reports	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.3920 (a)(7) and (c).
§63.10(e)(1)-(2)	Additional CMS Reports	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.3920(b) specifies the contents of periodic compliance reports.
§63.10(e)(4)	COMS Data Reports	No	Subpart MMMMM does not specify requirements for opacity or COMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§63.11	Control Device Requirements/Flares	No	Subpart MMMM does not specify use of flares for compliance.
§63.12	State Authority and Delegations	Yes	
§63.13	Addresses	Yes	
§63.14	IBR	Yes	
§63.15	Availability of Information/Confidentiality	Yes	

[85 FR 41145, July 8, 2020, as amended at 85 FR 73906, Nov. 19, 2020]

Table 3 to Subpart MMMM 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 and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from table 4 to this subpart if neither the name or CAS number match.

Solvent/solvent blend	**CAS. No.**	**Average organic HAP mass fraction**	**Typical organic HAP, percent by mass**
1. Toluene	108-88-3	1.0	Toluene.
2. Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene.
3. Hexane	110-54-3	0.5	n-hexane.
4. n-Hexane	110-54-3	1.0	n-hexane.
5. Ethylbenzene	100-41-4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits	8032-32-4	0	None.
12. Ligroines (VM & P)	8032-32-4	0	None.
13. Lactol spirits	64742-89-6	0.15	Toluene.
14. Low aromatic white spirit	64742-82-1	0	None.
15. Mineral spirits	64742-88-7	0.01	Xylenes.
16. Hydrotreated naphtha	64742-48-9	0	None.
17. Hydrotreated light distillate	64742-47-8	0.001	Toluene.
18. Stoddard solvent	8052-41-3	0.01	Xylenes.
19. Super high-flash naphtha	64742-95-6	0.05	Xylenes.
20. Varsol® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

Table 4 to Subpart MMMM of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups[a]

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.

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic[b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic[c]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

[a]Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

[b]Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c]Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Table 5 to Subpart MMMM of Part 63—List of HAP That Must Be Counted Toward Total Organic HAP Content If Present at 0.1 Percent or More by Mass

Chemical Name	CAS No.
1,1,2,2-Tetrachloroethane	79-34-5
1,1,2-Trichloroethane	79-00-5
1,1-Dimethylhydrazine	57-14-7
1,2-Dibromo-3-chloropropane	96-12-8
1,2-Diphenylhydrazine	122-66-7
1,3-Butadiene	106-99-0
1,3-Dichloropropene	542-75-6
1,4-Dioxane	123-91-1
2,4,6-Trichlorophenol	88-06-2
2,4/2,6-Dinitrotoluene (mixture)	25321-14-6
2,4-Dinitrotoluene	121-14-2
2,4-Toluene diamine	95-80-7
2-Nitropropane	79-46-9
3,3′-Dichlorobenzidine	91-94-1
3,3′-Dimethoxybenzidine	119-90-4
3,3′-Dimethylbenzidine	119-93-7
4,4′-Methylene bis(2-chloroaniline)	101-14-4
Acetaldehyde	75-07-0
Acrylamide	79-06-1

Chemical Name	CAS No.
Acrylonitrile	107-13-1
Allyl chloride	107-05-1
alpha-Hexachlorocyclohexane (a-HCH)	319-84-6
Aniline	62-53-3
Benzene	71-43-2
Benzidine	92-87-5
Benzotrichloride	98-07-7
Benzyl chloride	100-44-7
beta-Hexachlorocyclohexane (b-HCH)	319-85-7
Bis(2-ethylhexyl)phthalate	117-81-7
Bis(chloromethyl)ether	542-88-1
Bromoform	75-25-2
Captan	133-06-2
Carbon tetrachloride	56-23-5
Chlordane	57-74-9
Chlorobenzilate	510-15-6
Chloroform	67-66-3
Chloroprene	126-99-8
Cresols (mixed)	1319-77-3
DDE	3547-04-4
Dichloroethyl ether	111-44-4
Dichlorvos	62-73-7
Epichlorohydrin	106-89-8
Ethyl acrylate	140-88-5
Ethylene dibromide	106-93-4
Ethylene dichloride	107-06-2
Ethylene oxide	75-21-8
Ethylene thiourea	96-45-7
Ethylidene dichloride (1,1-Dichloroethane)	75-34-3
Formaldehyde	50-00-0
Heptachlor	76-44-8
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachloroethane	67-72-1
Hydrazine	302-01-2

Chemical Name	CAS No.
Isophorone	78-59-1
Lindane (hexachlorocyclohexane, all isomers)	58-89-9
m-Cresol	108-39-4
Methylene chloride	75-09-2
Naphthalene	91-20-3
Nitrobenzene	98-95-3
Nitrosodimethylamine	62-75-9
o-Cresol	95-48-7
o-Toluidine	95-53-4
Parathion	56-38-2
p-Cresol	106-44-5
p-Dichlorobenzene	106-46-7
Pentachloronitrobenzene	82-68-8
Pentachlorophenol	87-86-5
Propoxur	114-26-1
Propylene dichloride	78-87-5
Propylene oxide	75-56-9
Quinoline	91-22-5
Tetrachloroethene	127-18-4
Toxaphene	8001-35-2
Trichloroethylene	79-01-6
Trifluralin	1582-09-8
Vinyl bromide	593-60-2
Vinyl chloride	75-01-4
Vinylidene chloride	75-35-4

[85 FR 41148, July 8, 2020]

Appendix A to Subpart MMMM of Part 63—Alternative Capture Efficiency and Destruction Efficiency Measurement and Monitoring Procedures for Magnet Wire Coating Operations

1.0 Introduction.

1.1 These alternative procedures for capture efficiency and destruction efficiency measurement and monitoring are intended principally for newer magnet wire coating machines where the control device is internal and integral to the oven so that it is difficult or infeasible to make gas measurements at the inlet to the control device.

1.2 In newer gas fired magnet wire ovens with thermal control (no catalyst), the burner tube serves as the control device (thermal oxidizer) for the process. The combustion of solvents in the burner tube is the principal source of heat for the oven.

1.3 In newer magnet wire ovens with a catalyst there is either a burner tube (gas fired ovens) or a tube filled with electric heating elements (electric heated oven) before the catalyst. A large portion of the solvent is often oxidized before reaching the catalyst. The combustion of solvents in the tube and across the catalyst is the principal source of heat for the oven. The internal catalyst in these ovens cannot be accessed without disassembly of the oven. This disassembly includes removal of the oven insulation. Oven reassembly often requires the installation of new oven insulation.

1.4 Some older magnet wire ovens have external afterburners. A significant portion of the solvent is oxidized within these ovens as well.

1.5 The alternative procedure for destruction efficiency determines the organic carbon content of the volatiles entering the control device based on the quantity of coating used, the carbon content of the volatile portion of the coating and the efficiency of the capture system. The organic carbon content of the control device outlet (oven exhaust for ovens without an external afterburner) is determined using Method 25 or 25A.

1.6 When it is difficult or infeasible to make gas measurements at the inlet to the control device, measuring capture efficiency with a gas-to-gas protocol (see §63.3965(d)) which relies on direct measurement of the captured gas stream will also be difficult or infeasible. In these situations, capture efficiency measurement is more appropriately done with a procedure which does not rely on direct measurement of the captured gas stream.

1.7 Magnet wire ovens are relatively small compared to many other coating ovens. The exhaust rate from an oven is low and varies as the coating use rate and solvent loading rate change from job to job. The air balance in magnet wire ovens is critical to product quality. Magnet wire ovens must be operated under negative pressure to avoid smoke and odor in the workplace, and the exhaust rate must be sufficient to prevent over heating within the oven.

1.8 The liquid and gas measurements needed to determine capture efficiency and control device efficiency using these alternative procedures may be made simultaneously.

1.9 Magnet wire facilities may have many (*e.g.,* 20 to 70 or more) individual coating lines each with its own capture and control system. With approval, representative capture efficiency and control device efficiency testing of one magnet wire coating machine out of a group of identical or very similar magnet wire coating machines may be performed rather than testing every individual magnet wire coating machine. The operating parameters must be established for each tested magnet wire coating machine during each capture efficiency test and each control device efficiency test. The operating parameters established for each tested magnet wire coating machine also serve as the operating parameters for untested or very similar magnet wire coating machines represented by a tested magnet wire coating machine.

2.0 Capture Efficiency.

2.1 If the capture system is a permanent total enclosure as described in §63.3965(a), then its capture efficiency may be assumed to be 100 percent.

2.2 If the capture system is not a permanent total enclosure, then capture efficiency must be determined using the liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure in §63.3965(c), or an alternative capture efficiency protocol (see §63.3965(e)) which does not rely on direct measurement of the captured gas stream.

2.3 As an alternative to establishing and monitoring the capture efficiency operating parameters in §63.3967(f), the monitoring described in either section 2.4 or 2.5, and the monitoring described in sections 2.6 and 2.7 may be used for magnet wire coating machines.

2.4 Each magnet wire oven must be equipped with an interlock mechanism which will stop or prohibit the application of coating either when any exhaust fan for that oven is not operating or when the oven experiences an over limit temperature condition.

2.5 Each magnet wire oven must be equipped with an alarm which will be activated either when any oven exhaust fan is not operating or when the oven experiences an over limit temperature condition.

2.6 If the interlock in 2.4 or the alarm in 2.5 is monitoring for over limit temperature conditions, then the temperature(s) that will trigger the interlock or the alarm must be included in the start-up, shutdown and malfunction plan and the interlock or alarm must be set to be activated when the oven reaches that temperature.

2.7 Once every 6 months, each magnet wire oven must be checked using a smoke stick or equivalent approach to confirm that the oven is operating at negative pressure compared to the surrounding atmosphere.

3.0 Control Device Efficiency.

3.1 Determine the weight fraction carbon content of the volatile portion of each coating, thinner, additive, or cleaning material used during each test run using either the procedure in section 3.2 or 3.3.

3.2 Following the procedures in Method 204F, distill a sample of each coating, thinner, additive, or cleaning material used during each test run to separate the volatile portion. Determine the weight fraction carbon content of each distillate using ASTM Method D5291-02, “Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants” (incorporated by reference, see §63.14).

3.3 Analyze each coating, thinner, additive or cleaning material used during each test run using Method 311. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of that whole compound in the coating, thinner, additive, or cleaning material. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of the carbon in that compound in the coating, thinner, additive, or cleaning material. Calculate the weight fraction carbon content of each coating, thinner, additive, or cleaning material as the ratio of the sum of the carbon weight fractions divided by the sum of the whole compound weight fractions.

3.4 Determine the mass fraction of total volatile hydrocarbon (TVH_i) in each coating, thinner, additive, or cleaning material, i, used during each test run using Method 24. The mass fraction of total volatile hydrocarbon equals the weight fraction volatile matter (W_v in Method 24) minus the weight fraction water (W_w in Method 24), if any, present in the coating. The ASTM Method D6053-00, “Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes” (incorporated by reference, see §63.14), may be used as an alternative to Method 24 for magnet wire enamels. The specimen size for testing magnet wire enamels with ASTM Method D6053-00 must be 2.0 ±0.1 grams.

3.5 Determine the volume (VOL_i) or mass ($MASS_i$) of each coating, thinner, additive, or cleaning material, i, used during each test run.

3.6 Calculate the total volatile hydrocarbon input ($TVHC_{inlet}$) to the control device during each test run, as carbon, using Equation 1:

$$TVHC_{inlet} = \sum_{i=1}^{n} (TVH_i \times VOL_i \times D_i \times CD_i) \qquad (Eq.\ 1)$$

where:

TVH_i = Mass fraction of TVH in coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run.

VOL_i = Volume of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, liters.

D_i = Density of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, kg per liter.

CD_i = Weight fraction carbon content of the distillate from coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, percent.

n = Number of coating, thinner, additive, and cleaning materials used in the coating operation during the test run.

3.7 If the mass, $MASS_i$, of each coating, solvent, additive, or cleaning material, i, used during the test run is measured directly then $MASS_i$ can be substituted for $VOL_i \times D_i$ in Equation 1 in section 3.6.

3.8 Determine the TVHC output ($TVHC_{outlet}$) from the control device, as carbon, during each test run using the methods in §63.3966(a) and the procedure for determining M_{fo} in §63.3966(d). $TVHC_{outlet}$ equals M_{fo} times the length of the test run in hours.

3.9 Determine the control device efficiency (DRE) for each test run using Equation 2:

$$DRE = \frac{\left(TVHC_{inlet} - TVHC_{outlet}\right)}{TVHC_{inlet}} \times 100 \qquad \text{(Eq. 2)}$$

3.10 The efficiency of the control device is the average of the three individual test run values determined in section 3.9.

3.11 As an alternative to establishing and monitoring the destruction efficiency operating parameters for catalytic oxidizers in §63.3967(b), the monitoring described in sections 3.12 and 3.13 may be used for magnet wire coating machines equipped with catalytic oxidizers.

3.12 During the performance test, you must monitor and record the temperature either just before or just after the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature either just before or just after the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer and for the catalytic oxidizers in identical or very similar magnet wire coating machines represented by the tested magnet wire coating machine.

3.13 You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s). The plan must address, at a minimum, the elements specified in sections 3.14 and 3.15, and the elements specified in either (a) section 3.16 or (b) sections 3.17 and 3.18.

3.14 You must conduct a monthly external inspection of each 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.

3.15 You must conduct an annual internal inspection of each accessible catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations. This provision does not apply to internal catalysts which cannot be accessed without disassembling the magnet wire oven.

3.16 You must take a sample of each catalyst bed and perform an analysis of the catalyst activity (*i.e.,* conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. This sampling and analysis must be done within the time period shown in Table 1 below of the most recent of the last catalyst activity test or the last catalyst replacement. For example, if the warranty for the catalyst is 3 years and the catalyst was more recently replaced then the sampling and analysis must be done within the earlier of 26,280 operating hours or 5 calendar years of the last catalyst replacement. If the warranty for the catalyst is 3 years and the catalyst was more recently tested then the sampling and analysis must be done within the earlier of 13,140 operating hours or 3 calendar years of the last catalyst activity test. If problems are found during the catalyst activity test, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations.

TABLE 1—CATALYST MONITORING REQUIREMENTS

If the catalyst was last (more recently) replaced and the warranty period is . . .	Then the time between catalyst replacement and the next catalyst activity test cannot exceed the earlier of . . .	And the catalyst was more recently tested, then the time between catalyst activity tests cannot exceed the earlier of . . .
1 year	8,760 operating hours or 5 calendar years	8,760 operating hours or 3 calendar years.
2 years	15,520 operating hours or 5 calendar years	8,760 operating hours or 3 calendar years.
3 years	26,280 operating hours or 5 calendar years	13,100 operating hours or 3 calendar years.
4 years	35,040 operating hours or 5 calendar years	17,520 operating hours or 3 calendar years.
5 or more years	43,800 operating hours or 5 calendar years	21,900 operating hours or 3 calendar years.

3.17 During the performance test, you must determine the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases (C_c in Equation 1 in §63.3966(d)) and the destruction efficiency of the catalytic oxidizer, and calculate the operating limit for oven exhaust stack gas concentration as follows. You must identify the highest organic HAP content coating used on this magnet wire coating machine or any identical or very similar magnet wire coating machines to which the same destruction efficiency test results will be applied. Calculate the percent emission reduction necessary to meet the magnet wire coating emission limit when using this coating. Calculate the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases that would be equivalent to exactly meeting the magnet wire coating emissions limit when using the highest organic HAP content coating. The maximum operating limit for oven exhaust stack gas concentration equals 90 percent of this calculated concentration.

3.18 For each magnet wire coating machine equipped with a catalytic oxidizer you must perform an annual 10 minute test of the oven exhaust stack gases using EPA Method 25A. This test must be performed under steady state operating conditions similar to those at which the last destruction efficiency test for equipment of that type (either the specific magnet wire coating machine or an identical or very similar magnet wire coating machine) was conducted. If the average exhaust stack gas concentration during the annual test of a magnet wire coating machine equipped with a catalytic oxidizer is greater than the operating limit established in section 3.17 then that is a deviation from the operating limit for that catalytic oxidizer. If problems are found during the annual 10-minute test of the oven exhaust stack gases, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

3.19 If a catalyst bed is replaced and the replacement catalyst 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 §63.3966 and establish new operating limits for that catalytic oxidizer unless destruction efficiency test results and operating limits for an identical or very similar unit (including consideration of the replacement catalyst) are available and approved for use for the catalytic oxidizer with the replacement catalyst.

3.20 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.

Attachment C

Part 70 Operating Permit No: 039-47470-00017

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart PPPP—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products

SOURCE: 69 FR 20990, Apr. 19, 2004, unless otherwise noted.

WHAT THIS SUBPART COVERS

§63.4480 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for plastic parts and products surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§63.4481 Am I subject to this subpart?

(a) Plastic parts and products include, but are not limited to, plastic components of the following types of products as well as the products themselves: Motor vehicle parts and accessories for automobiles, trucks, recreational vehicles; sporting and recreational goods; toys; business machines; laboratory and medical equipment; and household and other consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any plastic parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (5) of this section.

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

(2) The general use coating subcategory includes all surface coating operations that are not automotive lamp coating operations, thermoplastic olefin (TPO) coating operations, or assembled on-road vehicle coating operations.

(3) The automotive lamp coating subcategory includes the surface coating of plastic components of the body of an exterior automotive lamp including, but not limited to, headlamps, tail lamps, turn signals, and marker (clearance) lamps; typical coatings used are reflective argent coatings and clear topcoats. This subcategory does not include the coating of interior automotive lamps, such as dome lamps and instrument panel lamps.

(4) The TPO coating subcategory includes the surface coating of TPO substrates; typical coatings used are adhesion promoters, color coatings, clear coatings and topcoats. The coating of TPO substrates on fully assembled on-road vehicles is not included in the TPO coating subcategory.

(5) The assembled on-road vehicle coating subcategory includes surface coating of fully assembled motor vehicles and trailers intended for on-road use, including, but not limited to: automobiles, light-duty trucks, heavy duty

trucks, and busses that have been repaired after a collision or otherwise repainted; fleet delivery trucks; and motor homes and other recreational vehicles (including camping trailers and fifth wheels). This subcategory also includes the incidental coating of parts, such as radiator grilles, that are removed from the fully assembled on-road vehicle to facilitate concurrent coating of all parts associated with the vehicle. The assembled on-road vehicle coating subcategory does not include the surface coating of plastic parts prior to their attachment to an on-road vehicle on an original equipment manufacturer's (OEM) assembly line. The assembled on-road vehicle coating subcategory also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles. Body fillers used to correct small surface defects and rubbing compounds used to remove surface scratches are not considered coatings subject to this subpart.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.4482, that uses 378 liters (100 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of plastic parts and products defined in paragraph (a) of this section; and 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. You do not need to include coatings that meet the definition of non-HAP coating contained in §63.4581 in determining whether you use 378 liters (100 gallons) per year, or more, of coatings in the surface coating of plastic parts and products.

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to §63.3941(a).

(2) Surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(3) The surface coating of plastic parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).

(4) Surface coating where plastic is extruded onto plastic parts or products to form a coating.

(5) Surface coating of magnet wire.

(6) In-mold coating operations or gel coating operations in the manufacture of reinforced plastic composite parts that meet the applicability criteria for reinforced plastics composites production (subpart WWWW of this part).

(7) Surface coating of plastic components of wood furniture that meet the applicability criteria for wood furniture manufacturing (subpart JJ of this part).

(8) Surface coating of plastic components of large appliances that meet the applicability criteria for large appliance surface coating (subpart NNNN of this part).

(9) Surface coating of plastic components of metal furniture that meet the applicability criteria for metal furniture surface coating (subpart RRRR of this part).

(10) Surface coating of plastic components of wood building products that meet the applicability criteria for wood building products surface coating (subpart QQQQ of this part).

(11) Surface coating of plastic components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework (40 CFR part 63, subpart GG).

(12) Surface coating of plastic parts intended for use in an aerospace vehicle or component using specialty coatings as defined in appendix A to subpart GG of this part.

(13) Surface coating of plastic components of ships that meet the applicability criteria for shipbuilding and ship repair (subpart II of this part).

(14) Surface coating of plastic using a web coating process that meets the applicability criteria for paper and other web coating (subpart JJJJ of this part).

(15) Surface coating of fiberglass boats or parts of fiberglass boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for boat manufacturing (subpart VVVV of this part), except where the surface coating of the boat is a post-mold coating operation performed on personal watercraft or parts of personal watercraft. This subpart does apply to post-mold coating operations performed on personal watercraft and parts of personal watercraft.

(16) Surface coating of plastic components of automobiles and light-duty trucks that meet the applicability criteria in §63.3082(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) at a facility that meets the applicability criteria in §63.3081(b).

(17) Screen printing.

(d) If your facility meets the applicability criteria in §63.3081(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) and you perform surface coating of plastic parts or products that meets both the applicability criteria in §63.3082(c) and the applicability criteria of this subpart, then for the surface coating of any or all of your plastic parts or products that meets the applicability criteria in §63.3082(c), you may choose to comply with the requirements of subpart IIII of this part in lieu of complying with this subpart. Surface coating operations on plastic parts or products (e.g., parts for motorcycles or lawnmowers) not intended for use in automobiles, light-duty trucks, or other motor vehicles as defined in §63.3176 cannot be made part of your affected source under subpart IIII of this part.

(e) If you own or operate an affected source that meets the applicability criteria of this subpart and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in this part, you may choose to comply as specified in paragraph (e)(1), (2), or (3) of this section.

(1) You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) and (ii) of this section. However, you may not establish assembled on-road vehicle or automotive lamp coating operations as the predominant activity. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining the predominant surface coating activity at your facility.

(i) If a surface coating operation accounts for 90 percent or more of the surface coating activity at your facility (that is, the predominant activity), then compliance with the emission limitations of the predominant activity for all surface coating operations constitutes compliance with these and other applicable surface coating NESHAP. In determining predominant activity, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(ii) You must use kilogram (kg) (pound (lb)) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative mass of coating solids used from parameters other than coating consumption and mass solids content (*e.g.,* design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and mass solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.4510(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by §63.4520(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this subpart and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in §63.4490. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit but must be included in the compliance calculations.

[69 FR 20990, Apr. 19, 2004, as amended at 69 FR 22660, Apr. 26, 2004; 71 FR 76927, Dec. 22, 2006; 72 FR 20237, Apr. 24, 2007]

§63.4482 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in §63.4481(a).

(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 plastic parts and products within each subcategory.

(1) All coating operations as defined in §63.4581;

(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new source if it meets the criteria in paragraph (c)(1) of this section and the criteria in either paragraph (c)(2) or (3) of this section.

(1) You commenced the construction of the source after December 4, 2002 by installing new coating equipment.

(2) The new coating equipment is used to coat plastic parts and products at a source where no plastic parts surface coating was previously performed.

(3) The new coating equipment is used to perform plastic parts and products coating in a subcategory that was not previously performed.

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

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

§63.4483 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 demonstration described in §§63.4540, 63.4550, and 63.4560.

(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 April 19, 2004, the compliance date is April 19, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after April 19, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after April 19, 2004.

(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 April 19, 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 3 years after April 19, 2004, whichever is later.

(d) You must meet the notification requirements in §63.4510 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

§63.4490 What emission limits must I meet?

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (a)(1) through (4) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.4541, §63.4551, or §63.4561.

(1) For each new general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(2) For each new automotive lamp coating affected source, limit organic HAP emissions to no more than 0.26 kg (0.26 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(3) For each new TPO coating affected source, limit organic HAP emissions to no more than 0.22 kg (0.22 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(4) For each new assembled on-road vehicle coating affected source, limit organic HAP emissions to no more than 1.34 kg (1.34 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (4) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.4541, §63.4551, or §63.4561.

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(2) For each existing automotive lamp coating affected source, limit organic HAP emissions to no more than 0.45 kg (0.45 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(3) For each existing TPO coating affected source, limit organic HAP emissions to no more than 0.26 kg (0.26 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(4) For each existing assembled on-road vehicle coating affected source, limit organic HAP emissions to no more than 1.34 kg (1.34 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(c) If your facility's surface coating operations meet the applicability criteria of more than one of the subcategory emission limits specified in paragraphs (a) or (b) of this section, you may comply separately with each subcategory emission limit or comply using one of the alternatives in paragraph (c)(1) or (2) of this section.

(1) If the general use or TPO surface coating operations subject to only one of the emission limits specified in paragraphs (a)(1), (a)(3), (b)(1), or (b)(3) of this section account for 90 percent or more of the surface coating activity at your facility (*i.e.,* it is the predominant activity at your facility), then compliance with that emission limitation for all surface coating operations constitutes compliance with the other applicable emission limitations. You must use kg (lb) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative mass of coating solids used from parameters other than coating consumption and mass solids content (*e.g.,* design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and mass solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.4510(b). Additionally, you must determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by §63.4520(a).

(2) You may calculate and comply with a facility-specific emission limit as described in paragraphs (c)(2)(i) through (iii) of this section. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of the other subcategories and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(i) You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in §63.4510(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

(ii) Use Equation 1 of this section to calculate the facility-specific emission limit for your surface coating operations for each 12-month compliance period.

$$\mathit{Facility-Specific}\ \text{Emission Limit} = \frac{\sum_{i=1}^{n} (\text{Limit}_i)(\mathit{Solids}_i)}{\sum_{i=1}^{n} (\mathit{Solids}_i)} \qquad (\mathit{Eq.}\ 1)$$

Where:

Facility-specific emission limit = Facility-specific emission limit for each 12-month compliance period, kg (lb) organic HAP per kg (lb) coating solids used.

$Limit_i$ = The new source or existing source emission limit applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) organic HAP per kg (lb) coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit must be in the same units.

$Solids_i$ = The kg (lb) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i. You may estimate the mass of coating solids used from parameters other than coating consumption and mass solids content (*e.g.,* design specifications for the parts or products coated and the number of items produced). The use of parameters other than coating consumption and mass solids content must be approved by the Administrator.

n = The number of different coating operations included in the facility-specific emission limit.

(iii) If you need to convert an emission limit in another surface coating NESHAP from kg (lb) organic HAP per liter (gallon) coating solids used to kg (lb) organic HAP per kg (lb) coating solids used, you must use the default solids density of 1.50 kg solids per liter coating solids (12.5 lb solids per gal solids).

§63.4491 What are my options for meeting the emission limits?

You must include all coatings (as defined in §63.4581), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in §63.4490. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by §63.4530(c), and you must report it in the next semiannual compliance report required in §63.4520.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in §63.4490, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. You must meet all the requirements of §§63.4540, 63.4541, and 63.4542 to demonstrate compliance with the applicable emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.4490, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§63.4550, 63.4551, and 63.4552 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.4490, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in §63.4492, except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j), and that you meet the work practice standards required in §63.4493. You must meet all the requirements of §§63.4560 through 63.4568 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§63.4492 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to §63.4561(j), you must meet the operating limits specified in table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance tests required in §63.4560 according to the requirements in §63.4567. You must meet the operating limits established during the most recent performance tests required in §63.4560 at all times after you establish them.

(c) 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).

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41150, July 8, 2020]

§63.4493 What work practice standards must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s) for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. 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 and/or other additives, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels 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) As provided in §63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the work practice standards in this section.

GENERAL COMPLIANCE REQUIREMENTS

§63.4500 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in §63.4491(a) and (b), must be in compliance with the applicable emission limit in §63.4490 at all times.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in §63.4491(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) The coating operation(s) must be in compliance with the applicable emission limit in §63.4490 at all times.

(ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.4492 at all times, except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j).

(iii) The coating operation(s) must be in compliance with the work practice standards in §63.4493 at all times.

(b) Before January 5, 2021, 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). On and after January 5, 2021, at all times, the owner or operator 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 the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements 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 affected source.

(c) Before January 5, 2021, if your affected source uses an emission capture system and add-on control device, you must develop a written SSMP according to the provisions in §63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures. On and after January 5, 2021, the SSMP is not required.

[69 FR 20990, Apr. 19, 2004, as amended at 71 FR 20465, Apr. 20, 2006; 85 FR 41150, July 8, 2020]

§63.4501 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

§63.4510 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) *Initial notification.* 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, 120 days after April 19, 2004, or no later than 120 days after the source becomes subject to this subpart, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after April 19, 2004, or no later than 120 days after the source becomes subject to this subpart, whichever is later. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under §63.4481(d) to constitute compliance with this subpart for any or all of your plastic parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those plastic parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under §63.4481(e)(2) to constitute compliance with this subpart for your plastic parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those plastic parts coating operations.

(c) *Notification of compliance status.* You must submit the notification of compliance status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §63.4540, §63.4550, or §63.4560 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) 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 §63.4540, §63.4550, or §63.4560 that applies to your affected source.

(4) Identification of the compliance option or options specified in §63.4491 that you used on each coating operation 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 the applicable emission limit in §63.4490, include all the calculations you used to determine the kg (lb) organic HAP emitted per kg (lb) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to §63.4541(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material.

(ii) Mass fraction of coating solids for one coating.

(iii) Density for one coating, one thinner and/or other additive, and one cleaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of §63.4551.

(8) The calculation of kg (lb) organic HAP emitted per kg (lb) coating solids used for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 1 of §63.4541.

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total mass of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A through 1C, 2, and 3, respectively, of §63.4551.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month, using Equations 1 and 1A through 1C of §63.4551; the calculation of the total mass of coating solids used each month using Equation 2 of §63.4551; the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.4561 and Equations 2, 3, and 3A through 3C of §63.4561, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of §63.4561; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.4561.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j).

(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 protocol 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.

(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.

(iv) A statement of whether or not you developed and implemented the work practice plan required by §63.4493.

(10) If you are complying with a single emission limit representing the predominant activity under §63.4490(c)(1), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in §63.4490(c)(1).

(11) If you are complying with a facility-specific emission limit under §63.4490(c)(2), include the calculation of the facility-specific emission limit and any supporting information as specified in §63.4490(c)(2).

[69 FR 20990, Apr. 19, 2004, as amended at 69 FR 22661, Apr. 26, 2004; 85 FR 73907, Nov. 19, 2020]

§63.4520 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 (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved or agreed to 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. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(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 §63.4540, §63.4550, or §63.4560 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date 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)(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 date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a 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)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission will 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 the affected source 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 (vii) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is 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. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in §63.4491 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§63.4491(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (§63.4490(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (§63.4490(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in §§63.4490, 63.4492, and 63.4493 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 the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (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: Compliant material option.* If you used the compliant material option and there was a deviation from the applicable organic HAP content requirements in §63.4490, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (v) of this section.

(i) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the date, time, and duration each was used.

(ii) The calculation of the organic HAP content (using Equation 1 of §63.4541) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.,* information provided by coating suppliers or manufacturers, or test reports).

(iii) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.,* information provided by material suppliers or manufacturers, or test reports).

(iv) Before January 5, 2021, a statement of the cause of each deviation. On and after January 5, 2021, a statement of the cause of each deviation (including unknown cause, if applicable).

(v) On and after January 5, 2021, the number of deviations and, for each deviation, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in §63.4490, a description of the method used to estimate the emissions, and the actions you took to minimize emissions in accordance with §63.4500(b).

(6) *Deviations: Emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in §63.4490, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iv) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.4490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of §63.4551; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4551(e)(4). You do not need to submit background data supporting these calculations (*e.g.,* information provided by materials suppliers or manufacturers, or test reports).

(iii) Before January 5, 2021, a statement of the cause of each deviation. On and after January 5, 2021, a statement of the cause of each deviation (including unknown cause, if applicable).

(iv) On and after January 5, 2021, the number of deviations, date, time, duration, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in §63.4490, a description of the method used to estimate the emissions, and the actions you took to minimize emissions in accordance with §63.4500(b).

(7) *Deviations: Emission rate with add-on controls option.* If you used the emission rate with add-on controls option and there was a deviation from the applicable emission limit in §63.4490 or the applicable operating limit(s) in table 1 to this subpart (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), before January 5, 2021, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiv) of this section. This includes periods of SSM during which deviations occurred. On and after January 5, 2021, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xii), (xiv), and (xv) of this section. If you use the emission rate with add-on controls option and there was a deviation from the applicable work practice standards in §63.4493(b), the semiannual compliance report must contain the information in paragraph (a)(7)(xiii) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.4490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.4551; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4551(e)(4); the calculation of the total mass of coating solids used each month using Equation 2 of §63.4551; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.4561, and Equations 2, 3, and 3A through 3C of §63.4561, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of §63.4561; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.4561. You do not need to submit the background data supporting these calculations (*e.g.,* information provided by materials suppliers or manufacturers, or test reports).

(iii) The date and time that each malfunction of the capture system or add-on control devices started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) Before January 5, 2021, the date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks. On and after January 5, 2021, the number of instances that the CPMS was inoperative, and for each instance, except for zero (low-level) and high-level checks, the date, time, and duration that the CPMS was inoperative; the cause (including unknown cause) for the CPMS being inoperative; and the actions you took to minimize emissions in accordance with §63.4500(b).

(vii) Before January 5, 2021, the date, time, and duration that each CPMS was out-of-control, including the information in §63.8(c)(8). On and after January 5, 2021, the number of instances that the CPMS was out of control as specified in §63.8(c)(7) and, for each instance, the date, time, and duration that the CPMS was out-of-control; the cause (including unknown cause) for the CPMS being out-of-control; and descriptions of corrective actions taken.

(viii) Before January 5, 2021, the date and time period of each deviation from an operating limit in table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of SSM or during another period. On and after January 5, 2021, the number of deviations from an operating limit in table 1 to this subpart and, for each deviation, the date, time, and duration of each deviation; the date, time, and duration of any bypass of the add-on control device.

(ix) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

(x) Before January 5, 2021, a breakdown of the total duration of the deviations from the operating limits in table 1 of this subpart and bypasses of the 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. On and after January 5, 2021, a breakdown of the total duration of the deviations from the operating limits in table 1 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xiii) Before January 5, 2021, 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. On and after January 5, 2021, for deviations from the work practice standards, the number of deviations, and, for each deviation, the information in paragraphs (a)(7)(xiii)(A) and (B) of this section:

(A) A description of the deviation; the date, time, and duration of the deviation; and the actions you took to minimize emissions in accordance with §63.4500(b).

(B) The description required in paragraph (a)(7)(xiii)(A) of this section must include a list of the affected sources or equipment for which a deviation occurred and the cause of the deviation (including unknown cause, if applicable.

(xiv) Before January 5, 2021, a statement of the cause of each deviation. On and after January 5, 2021, for deviations from an emission limit in §63.4490 or an operating limit in Table 1 to this subpart, a statement of the cause of each deviation (including unknown cause, if applicable) and the actions you took to minimize emissions in accordance with §63.4500(b).

(xv) On and after January 5, 2021, for each deviation from an emission limit in §63.4490 or operating limit in table 1 to this subpart, a list of the affected sources or equipment for which a deviation occurred, an estimate of the quantity of each regulated pollutant emitted over any emission limit in §63.4490 or operating limit in table 1 to this subpart, and a description of the method used to estimate the emissions.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, 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).

(c) *SSM reports.* Before January 5, 2021, if you used the emission rate with add-on controls option and you had a SSM during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section. On and after January 5, 2021, the reports specified in paragraphs (c)(1) and (2) of this section are not required.

(1) If your actions were consistent with your startup, shutdown, and malfunction plan, 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 startup, shutdown, and malfunction plan, 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).

(d) *Performance test reports.* On and after January 5, 2021, you must submit the results of the performance tests required in §63.4560 following the procedure specified in paragraphs (d)(1) through (3) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI interface 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 the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website 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, unless the Administrator agrees to or specifies an alternate reporting method.

(3) If you claim that some of the performance test information being submitted under paragraph (d)(1) of this section 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 website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium 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 in paragraph (d)(1) of this section.

(e) *Initial notification reports.* On and after January 5, 2021, the owner or operator shall submit the initial notifications required in §63.9(b) and the notification of compliance status required in §63.9(h) and §63.4510(c) to the EPA via the CEDRI. The CEDRI interface can be accessed through the EPA's CDX (*https://cdx.epa.gov/*). The owner or operator must upload to CEDRI an electronic copy of each applicable notification in portable document format (PDF). The applicable notification must be submitted by the deadline specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the XML schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(f) *Semiannual compliance reports.* On and after January 5, 2021, or once the reporting template has been available on the CEDRI website for 1 year, whichever date is later, the owner or operator shall submit the semiannual compliance report required in paragraph (a) of this section to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (*https://cdx.epa.gov/*)). The owner or operator must use the appropriate electronic template on the CEDRI website for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri*). The date report templates become available will be listed on the CEDRI website. If the reporting form for the semiannual compliance report 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 addresses listed in §63.13. Once the form has been available in CEDRI for 1 year, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the XML schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(g) *Reporting during EPA system outages.* If you are required to electronically submit a report through the CEDRI in the EPA's CDX, and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of the EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of the EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(h) *Reporting during force majeure events.* If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.,* hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.,* large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41150, July 8, 2020]

§63.4530 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. If you are using the predominant activity alternative under §63.4490(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under §63.4490(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(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 and density for each coating, thinner and/or other additive, and cleaning material, and the mass fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or mass 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. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 1 of §63.4541.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of §63.4551 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4551(e)(4); the calculation of the total mass of coating solids used each month using Equation 2 of §63.4551; and the calculation of each 12-month organic HAP emission rate using Equation 3 of §63.4551.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.4551; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4551(e)(4);

(ii) The calculation of the total mass of coating solids used each month using Equation 2 of §63.4551;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.4561 and Equations 2, 3, and 3A through 3C of §63.4561, as applicable;

(iv) The calculation of each month's organic HAP emission rate using Equation 4 of §63.4561; and

(v) The calculation of each 12-month organic HAP emission rate using Equation 5 of §63.4561.

(d) A record of the name and mass of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the mass used.

(e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

(f) A record of the mass fraction of coating solids for each coating used during each compliance period.

(g) If you use an allowance in Equation 1 of §63.4551 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to §63.4551(e)(4), you must keep records of the information specified in paragraphs (g)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of §63.4551, a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of §63.4551.

(3) The methodology used in accordance with §63.4551(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(h) Before January 5, 2021, you must keep records of the date, time, and duration of each deviation. On and after January 5, 2021, for each deviation from an emission limitation reported under §63.4520(a)(5) through (7), a record of the information specified in paragraphs (h)(1) through (4) of this section, as applicable.

(1) The date, time, and duration of the deviation, as reported under §63.4520(a)(5) through (7).

(2) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation, as reported under §63.4520(a)(5) through (7).

(3) An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in §63.4490 or any applicable operating limit in Table 1 to this subpart, and a description of the method used to calculate the estimate, as reported under §63.4520(a)(5) through (7).

(4) A record of actions taken to minimize emissions in accordance with §63.4500(b) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(i) If you use the emission rate with add-on controls option, you must also keep the records specified in paragraphs (i)(1) through (8) of this section.

(1) Before January 5, 2021, for each deviation, a record of whether the deviation occurred during a period of SSM. On and after January 5, 2021, a record of whether the deviation occurred during a period of SSM is not required.

(2) Before January 5, 2021, the records in §63.6(e)(3)(iii) through (v) related to SSM. On and after January 5, 2021, the records in §63.6(e)(3)(iii) through (v) related to SSM are not required.

(3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.

(4) 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 §63.4565(a).

(5) 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 §§63.4564 and 63.4565(b) through (e), including the records specified in paragraphs (i)(5)(i) through (iii) of this section that apply to you.

(i) *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 204F 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 204E 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.

(ii) *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 204C 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 204E 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.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in §63.4565(e), if applicable.

(6) The records specified in paragraphs (i)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.4566.

(i) Records of each add-on control device performance test conducted according to §§63.4564 and 63.4566.

(ii) 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.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.4567 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by §63.4493 and documentation that you are implementing the plan on a continuous basis.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41152, July 8, 2020]

§63.4531 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. On and after January 5, 2021, any records required to be maintained by this subpart that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). You may keep the records off-site for the remaining 3 years.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41153, July 8, 2020]

COMPLIANCE REQUIREMENTS FOR THE COMPLIANT MATERIAL OPTION

§63.4540 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 in §63.4541. The initial compliance period begins on the applicable compliance date specified in §63.4483 and ends on the last day of the 12th 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 that month plus the next 12 months. The initial compliance demonstration includes the calculations according to §63.4541 and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in §63.4490, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to §63.4541(a).

§63.4541 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in §63.4490 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§63.4492 and 63.4493, respectively. You must conduct a separate initial compliance demonstration for each general use coating, TPO coating, automotive lamp coating, and assembled on-road vehicle coating affected source unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning 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 in Table 5 to this subpart that is measured to be present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other compounds. For example, if toluene (not listed in Table 5 to this subpart) 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.,* 0.763).

(2) *EPA Method 24 (appendix A-7 to 40 CFR part 60).* For coatings, you may use EPA Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. As an alternative to using EPA Method 24, you may use ASTM D2369-10 (Reapproved 2015)^{e} (incorporated by reference, *see* §63.14). For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in appendix A to this subpart, rather than EPA Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in appendix A to this subpart, as a substitute for the 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 in Table 5 to this subpart that is present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other compounds. For example, if toluene (not listed in Table 5 to this subpart) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. 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 you demonstrate to the satisfaction of the enforcement agency that the formulation 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 test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these 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 according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (appendix A to 40 CFR part 63) 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 you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(b) *Determine the mass fraction of coating solids for each coating.* You must determine the mass fraction of coating solids (kg (lb) of coating solids per kg (lb) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in paragraphs (b)(1) through (3) of this section.

(1) *Method 24 (appendix A to 40 CFR part 60).* Use Method 24 for determining the mass fraction of coating solids. For reactive adhesives in which some of the liquid fraction reacts to form solids, you may use the alternative method contained in appendix A to this subpart, rather than Method 24, to determine the mass fraction of coating solids.

(2) *Alternative method.* You may use an alternative test method for determining the solids content of each coating 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 obtain the mass fraction of coating solids for each coating from the supplier or manufacturer. If there is disagreement between such information and the

test method results, then the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(c) *Calculate the organic HAP content of each coating.* Calculate the organic HAP content, kg (lb) organic HAP emitted per kg (lb) coating solids used, of each coating used during the compliance period using Equation 1 of this section:

$$H_c = \frac{W_c}{S_c} \qquad (Eq.\ 1)$$

Where:

H_c = Organic HAP content of the coating, kg (lb) of organic HAP emitted per kg (lb) coating solids used.

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

S_c = Mass fraction of coating solids, kg coating solids per kg coating, determined according to paragraph (b) of this section.

(d) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in §63.4490; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§63.4530 and 63.4531. As part of the notification of compliance status required in §63.4510, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.4490, and you used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in paragraph (a) of this section.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41153, July 8, 2020]

§63.4542 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content (determined using Equation 1 of §63.4541) exceeds the applicable emission limit in §63.4490, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to §63.4541(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in §63.4540, is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under §63.4490(c), you must also perform the calculation using Equation 1 in §63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner and/or other additive, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(5).

(c) As part of each semiannual compliance report required by §63.4520, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the applicable emission limit in §63.4490, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.4490, and you used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to §63.4541(a).

(d) You must maintain records as specified in §§63.4530 and 63.4531.

COMPLIANCE REQUIREMENTS FOR THE EMISSION RATE WITHOUT ADD-ON CONTROLS OPTION

§63.4550 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 §63.4551. The initial compliance period begins on the applicable compliance date specified in §63.4483 and ends on the last day of the 12th 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 12 months. You must determine the mass of organic HAP emissions and mass of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to §63.4551 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.4490.

§63.4551 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in §63.4490, but is not required to meet the operating limits or work practice standards in §§63.4492 and 63.4493, respectively. You must conduct a separate initial compliance demonstration for each general use, TPO, automotive lamp, and assembled on-road vehicle coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the emission rate without add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in §63.4541(a).

(b) *Determine the mass fraction of coating solids.* Determine the mass fraction of coating solids (kg (lb) of coating solids per kg (lb) of coating) for each coating used during each month according to the requirements in §63.4541(b).

(c) *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM D1475-13 or ASTM D2111-10 (Reapproved 2015) (both incorporated by reference, *see* §63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM D1475-13 or ASTM D2111-10 (Reapproved 2015) and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of this section.

$$H_e = A + B + C - R_w \qquad (Eq.\ 1)$$

Where:

H_e = Total mass of organic HAP emissions during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B of this section.

C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to R_W if you do not wish to use this allowance.)

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

$$A = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad (Eq.\ 1A)$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of this section:

$$B = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad (Eq.\ 1B)$$

Where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

n = Number of different thinners and/or other additives used during the month.

(3) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of this section:

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad (Eq.\ 1C)$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = Number of different cleaning materials used during the month.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this section, then you must determine the mass according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may only include waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of this section and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in §63.4530(g). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total mass of coating solids used.* Determine the total mass of coating solids used, kg, which is the combined mass of coating solids for all the coatings used during each month, using Equation 2 of this section:

$$M_{st} = \sum_{i=1}^{m} (\mathrm{Vol}_{c,i})(\mathrm{D}_{c,i})(\mathrm{M}_{s,i}) \qquad (Eq.\ 2)$$

Where:

M_{st} = Total mass of coating solids used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kgs per liter coating, determined according to §63.4551(c).

$M_{s,i}$ = Mass fraction of coating solids for coating, i, kgs solids per kg coating, determined according to §63.4541(b).

m = Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per kg (lb) coating solids used, using Equation 3 of this section:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} M_{st}} \qquad (Eq.\ 3)$$

Where:

H_{yr} = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per kg coating solids used.

H_e = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1 of this section.

M_{st} = Total mass of coating solids used during month, y, kg, as calculated by Equation 2 of this section.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(h) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in §63.4490 or the predominant activity or facility-specific emission limit allowed in §63.4490(c). You must keep all records as required by §§63.4530 and 63.4531. As part of the notification of compliance status required by §63.4510, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and 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 §63.4490, determined according to the procedures in this section.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41153, July 8, 2020]

§63.4552 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to §63.4551(a) through (g), must be less than or equal to the applicable emission limit in

§63.4490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.4550 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.4551(a) through (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under §63.4490(c), you must also perform the calculation using Equation 1 in §63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.4490, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(6).

(c) As part of each semiannual compliance report required by §63.4520, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (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 §63.4490, determined according to §63.4551(a) through (g).

(d) You must maintain records as specified in §§63.4530 and 63.4531.

COMPLIANCE REQUIREMENTS FOR THE EMISSION RATE WITH ADD-ON CONTROLS OPTION

§63.4560 By what date must I conduct performance tests and 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 §63.4483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j), you must conduct according to the schedule in paragraphs (a)(1)(i) and (ii) of this section initial and periodic performance tests of each capture system and add-on control device according to the procedures in §§63.4564, 63.4565, and 63.4566 and establish the operating limits required by §63.4492. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4561(j), you must initiate the first material balance no later than the applicable compliance date specified in §63.4483.

(i) You must conduct the initial performance test and establish the operating limits required by §63.4492 no later than 180 days after the applicable compliance date specified in §63.4483.

(ii) You must conduct periodic performance tests and establish the operating limits required by §63.4492 within 5 years following the previous performance test. You must conduct the first periodic performance test before July 8, 2023, unless you are already required to complete periodic performance tests as a requirement of renewing your facility's operating permit under 40 CFR part 70 or 40 CFR part 71 and have conducted a performance test on or after July 8, 2018. Thereafter you must conduct a performance test no later than 5 years following the previous performance test. Operating limits must be confirmed or reestablished during each performance test. For any control device for which you are using the catalytic oxidizer control option at §63.4567(b) and following the catalyst maintenance procedures in §63.4567(b)(4), you are not required to conduct periodic control device performance testing as specified by this paragraph. For any control device for which instruments are used to continuously measure organic compound emissions, you are not required to conduct periodic control device performance testing as specified by this paragraph.

(2) You must develop and begin implementing the work practice plan required by §63.4493 no later than the compliance date specified in §63.4483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4561. The initial compliance period begins on the applicable compliance date specified in §63.4483 and ends on the last day of the 12th 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 12 months. You must determine the mass of organic HAP emissions and mass of coatings solids used each month and then calculate an organic HAP emission rate at the end of 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 §§63.4564, 63.4565, and 63.4566; results of liquid-liquid material balances conducted according to §63.4561(j); calculations according to §63.4561 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.4490; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.4568; and documentation of whether you developed and implemented the work practice plan required by §63.4493.

(4) For the initial compliance demonstration, you do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.4492 until after you have completed the initial 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 continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits established based on the initial performance tests specified in paragraph (a)(1) of this section for your affected source on the date you complete the performance tests. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in §63.4561(j).

(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 §63.4483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j), you must conduct according to the schedule in paragraphs (b)(1)(i) and (ii) of this section initial and periodic performance tests of each capture system and add-on control device according to the procedures in §§63.4564, 63.4565, and 63.4566 and establish the operating limits required by §63.4492. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4561(j), you must initiate the first material balance no later than the compliance date specified in §63.4483.

(i) You must conduct the initial performance test and establish the operating limits required by §63.4492 no later than 180 days after the applicable compliance date specified in §63.4483.

(ii) You must conduct periodic performance tests and establish the operating limits required by §63.4492 within 5 years following the previous performance test. You must conduct the first periodic performance test before July 8, 2023, unless you are already required to complete periodic performance tests as a requirement of renewing your facility's operating permit under 40 CFR part 70 or 40 CFR part 71 and have conducted a performance test on or after July 8, 2018. Thereafter you must conduct a performance test no later than 5 years following the previous performance test. Operating limits must be confirmed or reestablished during each performance test. For any control device for which you are using the catalytic oxidizer control option at §63.4567(b) and following the catalyst maintenance procedures in §63.4567(b)(4), you are not required to conduct periodic control device performance testing as specified by this paragraph. For any control device for which instruments are used to continuously measure organic compound emissions, you are not required to conduct periodic control device performance testing as specified by this paragraph.

(2) You must develop and begin implementing the work practice plan required by §63.4493 no later than the compliance date specified in §63.4483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4561. The initial compliance period begins on the applicable compliance date specified in §63.4483 and ends on the last day of the 12th 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 12 months. You must determine the mass of organic HAP emissions and mass of coatings solids used each month and then calculate an organic HAP emission rate at the end of 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 §§63.4564, 63.4565, and 63.4566; results of liquid-liquid material balances conducted according to §63.4561(j); calculations according to §63.4561 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.4490; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.4568; and documentation of whether you developed and implemented the work practice plan required by §63.4493.

(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 or control device. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section. You are still required to conduct a periodic performance test according to the applicable requirements of paragraphs (a)(1)(ii) and (b)(2)(ii) 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 must 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, with or without adjustments, 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.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41153, July 8, 2020]

§63.4561 How do I demonstrate initial compliance?

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in §§63.4490, 63.4492, and 63.4493. You must conduct a separate initial compliance demonstration for each general use, TPO, automotive lamp, and assembled on-road vehicle coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coatings operation(s) for which you use the emission rate with add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits.* Except as provided in §63.4560(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of paragraph (j) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.4492, using the procedures specified in §§63.4567 and 63.4568.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by §63.4493 during the initial compliance period, as specified in §63.4530.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in §63.4490 for each affected source in each subcategory.

(e) *Determine the mass fraction of organic HAP, density, volume used, and mass fraction of coating solids.* Follow the procedures specified in §63.4551(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner and/or other additive, and cleaning material used during each month; and the mass fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of §63.4551, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and/or other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *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 that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) 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 (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use Equation 1 of this section to calculate the 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. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. You must assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in §63.4563(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator. Equation 1 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.

$$H_C = \left(A_C + B_C + C_C - R_W - H_{UNC}\right)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \qquad (Eq.\ 1)$$

Where:

H_C = Mass of organic HAP emission reduction 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 1A of this section.

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg, as calculated in Equation 1B of this section.

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg, as calculated in Equation 1C of this section.

R_W = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to §63.4951(e)(4). (You may assign a value of zero to R_W if you do not wish to use this allowance.)

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in §63.4563(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D 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 §§63.4564 and 63.4565 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 §§63.4564 and 63.4566 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 (lb), using Equation 1A of this section:

$$A_C = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad (Eq.\ 1A)$$

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.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners and/or other additives used in the controlled coating operation, kg (lb), using Equation 1B of this section:

$$B_C = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (Eq.\ 1B)$$

Where:

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg per kg. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

n = Number of different thinners and/or other additives used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb), using Equation 1C of this section:

$$C_C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \quad (Eq.\ 1C)$$

Where:

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used in the controlled coating operation during deviations specified in §63.4563(c) and (d), using Equation 1D of this section:

$$H_{UNC} = \sum_{h=1}^{q} (Vol_h)(D_h)(W_h) \quad (Eq.\ 1D)$$

Where:

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in §63.4563(c) and (d) that occurred during the month in the controlled coating operation, kg.

Vol_h = Total volume of coating, thinner and/or other additive, or cleaning material, h, used in the controlled coating operation during deviations, liters.

D_h = Density of coating, thinner and/or other additives, or cleaning material, h, kg per liter.

W_h = Mass fraction of organic HAP in coating, thinner and/or other additives, or cleaning material, h, kg organic HAP per kg coating. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

q = Number of different coatings, thinners and/or other additives, and cleaning materials used.

(i) [Reserved]

(j) *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 organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are 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 (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(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, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner and/or other additive, and cleaning material 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 EPA Method 24 of 40 CFR part 60, appendix A-7, ASTM D2369-10 (Reapproved 2015)^{e} (incorporated by reference, *see* §63.14), or an EPA approved alternative method. Alternatively, you may determine the volatile organic matter mass fraction using 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 EPA Method 24 of 40 CFR part 60, appendix A-7, ASTM D2369-10 (Reapproved 2015)^{e}, or an approved alternative method, the test

method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(4) Determine the density of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to §63.4551(c).

(5) Measure the volume of each coating, thinner and/or other additive, and cleaning material 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 2 of this section:

$$R_V = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j} + \sum_{k=1}^{p} Vol_k D_k WV_{s,k}} \qquad (Eq.\ 2)$$

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.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

Vol_j = Volume of thinner and/or other additive, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_j = Density of thinner and/or other additive, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner and/or other additive, j, kg volatile organic matter per kg thinner and/or other additive. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

Vol_k = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_k = Density of cleaning material, k, kg per liter.

$WV_{s,k}$ = Mass fraction of volatile organic matter for cleaning material, k, kg volatile organic matter per kg cleaning material.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month.

p = Number of different cleaning materials 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 3 of this section and according to paragraphs (j)(7)(i) through (iii) of this section:

$$H_{CSR} = \left(A_{CSR} + B_{CSR} + C_{CSR}\right)\left(\frac{R_V}{100}\right) \quad (Eq.\ 3)$$

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 3A of this section.

B_{CSR} = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3C of this section.

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 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 3A of this section.

$$A_{CSR} = \sum_{i=1}^{m}\left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \quad (Eq.\ 3A)$$

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.

$Vol_{c,i}$ = 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 organic HAP per kg coating. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, using Equation 3B of this section:

$$B_{CSR} = \sum_{j=1}^{n}\left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \quad (Eq.\ 3B)$$

Where:

B_{CSR} = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

n = Number of different thinners and/or other additives used.

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg, using Equation 3C of this section:

$$C_{CSR} = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \quad (Eq.\ 3C)$$

Where:

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg cleaning material.

p = Number of different cleaning materials used.

(k) *Calculate the total mass of coating solids used.* Determine the total mass of coating solids used, kg, which is the combined mass of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of §63.4551.

(l) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, kg, during each month, using Equation 4 of this section:

$$H_{HAP} = H_e - \sum_{i=1}^{q} (H_{C,i}) - \sum_{j=1}^{r} (H_{CSR,j}) \qquad (Eq.\ 4)$$

Where:

H_{HAP} = Total mass of organic HAP emissions for the month, kg.

H_e = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners and/or other additives, and cleaning materials used during the month, kg, determined according to paragraph (f) of this section.

$H_{C,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg, from Equation 1 of this section.

$H_{CSR,j}$ = 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 3 of this section.

q = Number of controlled coating operations not controlled by a solvent recovery system using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

(m) *Calculate the organic HAP emission rate for the compliance period.* Determine the organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per kg (lb) coating solids used, using Equation 5 of this section:

$$H_{annual} = \frac{\sum_{y=1}^{n} H_{HAP,y}}{\sum_{y=1}^{n} M_{st,y}} \qquad (Eq.\ 5)$$

Where:

H_{annual} = Organic HAP emission rate for the compliance period, kg organic HAP emitted per kg coating solids used.

$H_{HAP,y}$ = Organic HAP emissions for month, y, kg, determined according to Equation 4 of this section.

$M_{st,y}$ = Total mass of coating solids used during month, y, kg, from Equation 2 of §63.4551.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in §63.4490 or the predominant activity or facility-specific emission limit allowed in §63.4490(c). You must keep all records as required by §§63.4530 and 63.4531. As part of the notification of compliance status required by §63.4510, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and 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 §63.4490, and for control devices other than solvent recovery system using a liquid-liquid material balance, you achieved the operating limits required by §63.4492 and the work practice standards required by §63.4493.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41154, July 8, 2020]

§63.4562 [Reserved]

§63.4563 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in §63.4490, the organic HAP emission rate for each compliance period, determined according to the procedures in §63.4561, must be equal to or less than the applicable emission limit in §63.4490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.4560 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.4561 on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under §63.4490(c), you must also perform the calculation using Equation 1 in §63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.4490, this is a deviation from the emission limitation for that compliance period that must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by §63.4492 that applies to you, as specified in Table 1 to this subpart, when the coating line is in operation.

(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 §§63.4510(c)(6) and 63.4520(a)(7).

(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, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator.

(d) You must meet the requirements for bypass lines in §63.4568(b) for controlled coating operations for which you do not 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 §§63.4510(c)(6) and 63.4520(a)(7). For the purposes of completing the compliance calculations specified in §§63.4561(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of §63.4561.

(e) You must demonstrate continuous compliance with the work practice standards in §63.4493. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by §63.4530(i)(8), this is a deviation from the work practice standards that must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(7).

(f) As part of each semiannual compliance report required in §63.4520, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limits in §63.4490, the operating limits in §63.4492, and the work practice standards in §63.4493, submit a statement 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 §63.4490, and you achieved the operating limits required by §63.4492 and the work practice standards required by §63.4493 during each compliance period.

(g) On and after January 5, 2021, deviations that occur due to malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are required to operate in accordance with §63.4500(b). The Administrator will determine whether the deviations are violations according to the provisions in §63.4500(b).

(h)-(i) [Reserved]

(j) You must maintain records as specified in §§63.4530 and 63.4531.

[69 FR 20990, Apr. 19, 2004, as amended at 71 FR 20465, Apr. 20, 2006; 85 FR 41154, July 8, 2020]

§63.4564 What are the general requirements for performance tests?

(a) Before January 5, 2021, you must conduct each performance test required by §63.4560 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). On and after January 5, 2021, you must conduct each performance test required by §63.4560 according to the requirements 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 nonoperation do not constitute representative conditions for purposes of conducting a performance test. The owner or operator may not conduct performance tests during periods of malfunction. You must record the process information

that is necessary to document operating conditions during the test and explain why the conditions represent normal operation. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(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 §63.4565. You must conduct each performance test of an add-on control device according to the requirements in §63.4566.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41155, July 8, 2020]

§63.4565 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 each performance test required by §63.4560.

(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, thinners and/or other additives, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off, curing, and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to 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 three protocols described in paragraphs (c), (d), and (e) 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 the production, which includes surface preparation activities and drying and 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, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials 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 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner and/or other additive, and cleaning material 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, thinners and/or other additives, and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \quad (Eq.\ 1)$$

Where:

TVH_{used} = Mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg.

TVH_i = Mass fraction of TVH in coating, thinner and/or other additive, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = Total volume of coating, thinner and/or other additive, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating, thinner and/or other additive, or cleaning material, i, kg material per liter material.

n = Number of different coatings, thinners and/or other additives, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or 204E 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 of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR 51 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:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \qquad (Eq.\ 2)$$

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, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials 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 204C 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 204C 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 measured in each duct and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E 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 of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR part 51 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:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + TVH_{uncaptured}\right)} \times 100 \qquad (Eq.\ 3)$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = 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.

$TVH_{uncaptured}$ = 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.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section and subject to the approval of the Administrator, 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.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41155, July 8, 2020]

§63.4566 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 §63.4560. For each performance test, 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 EPA Method 1 or 1A of appendix A-1 to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use EPA Method 2, 2A, 2C, 2D, or 2F of appendix A-1 to 40 CFR part 60, or 2G of appendix A-2 to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use EPA Method 3, 3A, or 3B of appendix A-2 to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight.

(4) Use EPA Method 4 of appendix A-3 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 EPA Method 25 or 25A of appendix A-7 to 40 CFR part 60.

(1) Use EPA Method 25 of appendix A-7 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 (ppm) at the control device outlet.

(2) Use EPA Method 25A of appendix A-7 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use EPA Method 25A of appendix A-7 if the add-on control device is not an oxidizer.

(4) You may use EPA Method 18 in appendix A-6 of part 60 to subtract methane emissions from measured total gaseous organic mass emissions as carbon.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet to the atmosphere of each device. For example, if one add-on control device is a concentrator with an outlet to the atmosphere 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 to the atmosphere 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:

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \quad (Eq.\ 1)$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg/per hour (h).

C_c = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (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/hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 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:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \qquad (Eq.\ 2)$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = 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.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41155, July 8, 2020]

§63.4567 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During performance tests required by §63.4560 and described in §§63.4564, 63.4565, and 63.4566, you must establish the operating limits required by §63.4492 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.4492.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During performance tests, 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) For each performance test, use the 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 operating limit for your 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) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During performance tests, 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) For each performance test, use the 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. These are the minimum operating limits for your catalytic oxidizer.

(3) You must 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)(4) of this section. During performance tests, 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. For each performance test, use the 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.

(4) 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)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(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 §63.4566. 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) During performance tests, 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 regenerative 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 performance tests, 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 of the performance test.

(2) For each performance test, use the 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 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) through (4) of this section.

(1) During performance tests, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) For each performance test, use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During each performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) For each performance test, use the data collected during the performance test to calculate and record the average pressure drop. This is the minimum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of §63.4565(a), 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 §63.4560 and described in §§63.4564 and 63.4565, 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. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41155, July 8, 2020]

§63.4568 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) Before January 5, 2021, you must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment. On and after January 5, 2021, you must maintain the CPMS at all times in accordance with §63.4500(b) and keep necessary parts readily available for routine repairs of the monitoring equipment.

(5) Before January 5, 2021, 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). On and after January 5, 2021, you must operate the CPMS and collect emission capture system and add-on control device parameter data at all times in accordance with §63.4500(b).

(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. Before January 5, 2021, 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. On and after January 5, 2021, except for periods of required quality assurance or control activities, any period for which the CPMS fails to operate and record data continuously as required by paragraph (a)(5) of this section, or generates data that cannot be included in calculating averages as specified in (a)(6) of this section constitutes 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 (v) 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 to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(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.

(v) *Flow direction indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow direction 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. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator must be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

(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 §63.4520.

(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 with concentrators or with carbon adsorbers to treat desorbed concentrate streams), 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 gas temperature monitors upstream and/or downstream of the catalyst bed as required in §63.3967(b).

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (v) of this section for each gas temperature monitoring device. For the purposes of this paragraph (c)(3), a thermocouple is part of the temperature sensor.

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

(ii) Use a temperature sensor with a measurement sensitivity of 5 degrees Fahrenheit or 1.0 percent of the temperature value, whichever is larger.

(iii) Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

(iv) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

(v) Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(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) through (3) 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 be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(3) For all regenerative carbon adsorbers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (g)(2) 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) and (g)(1)(i) through (vii) 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) Use a flow sensor with an accuracy of at least 10 percent of the flow.

(iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.

(iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

(v) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

(vi) Perform leak checks monthly.

(vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41156, July 8, 2020]

Other Requirements and Information

§63.4580 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the 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 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 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 requirements in §§63.4481 through 4483 and §§63.4490 through 4493.

(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.

§63.4581 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (e.g., catalysts, activators, accelerators).

Add-on control 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.

Adhesive, adhesive coating means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Assembled on-road vehicle coating means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use including, but not limited to, components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles (including camping trailers and fifth wheels). Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment, or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the Automobiles and Light-Duty Trucks NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles.

Automotive lamp coating means any coating operation in which coating is applied to the surface of some component of the body of an exterior automotive lamp, including the application of reflective argent coatings and clear topcoats. Exterior automotive lamps include head lamps, tail lamps, turn signals, brake lights, and side marker lights. Automotive lamp coating does not include any coating operation performed on an assembled on-road vehicle.

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 or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, 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.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (*e.g.,* depainting), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, 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, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coatings solids means the nonvolatile portion of the coating that makes up the dry film.

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 an emission capture system and add-on control device.

Deviation means:

(1) Before January 5, 2021, 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 requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;

(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; or

(iii) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart; and

(2) On and after January 5, 2021, 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 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.

Emission limitation means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Facility maintenance means the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

General use coating means any coating operation that is not an automotive lamp, TPO, or assembled on-road vehicle coating operation.

Hobby shop means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

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 §63.4541. 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 coating solids means the ratio of the mass of solids (also known as the mass of nonvolatiles) to the mass of a coating in which it is contained; kg of coating solids per kg of coating.

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.

Non-HAP coating means, for the purposes of this subpart, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is listed in table 5 to this subpart and no more than 1.0 percent by mass for any other individual HAP.

Organic HAP content means the mass of organic HAP emitted per mass of coating solids used for a coating calculated using Equation 1 of §63.4541. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

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.

Personal watercraft means a vessel (boat) which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing, or kneeling on the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

Plastic part and product means any piece or combination of pieces of which at least one has been formed from one or more resins. Such pieces may be solid, porous, flexible or rigid.

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.

Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in 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.

Startup, initial means the first time equipment is brought online in a facility.

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.

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.

Thermoplastic olefin (TPO) means polyolefins (blends of polypropylene, polyethylene and its copolymers). This also includes blends of TPO with polypropylene and polypropylene alloys including, but not limited to, thermoplastic elastomer (TPE), TPE polyurethane (TPU), TPE polyester (TPEE), TPE polyamide (TPAE), and thermoplastic elastomer polyvinyl chloride (TPVC).

Thermoplastic olefin (TPO) coating means any coating operation in which the coatings are components of a system of coatings applied to a TPO substrate, including adhesion promoters, primers, color coatings, clear coatings and topcoats. Thermoplastic olefin coating does not include the coating of TPO substrates on assembled on-road vehicles.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F 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.

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.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41156, July 8, 2020]

Table 1 to Subpart PPPP of Part 63—Operating Limits if Using the Emission Rate With Add-On Controls Option

If you are required to comply with operating limits by §63.4491(c), you must comply with the applicable operating limits in the following table:

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.4567(a).	i. Collecting the combustion temperature data according to §63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.4567(b); and either	i. Collecting the temperature data according to §63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	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 §63.4567(b)(2); or	i. Collecting the temperature data according to §63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	c. Develop and implement an inspection and maintenance plan according to §63.4567(b)(4).	i. Maintaining an up-to-date inspection and 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 §63.4567(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber	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 §63.4567(c); and	i. Measuring the total regeneration desorbing gas (*e.g.,* steam or nitrogen) mass flow for each regeneration cycle according to §63.4568(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	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 §63.4567(c).	i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.4568(d); and 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.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.4567(d).	i. Collecting the condenser outlet (product side) gas temperature according to §63.4568(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
5. Concentrators, including zeolite wheels and rotary carbon adsorbers	a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to §63.4567(e); and	i. Collecting the temperature data according to §63.4568(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature at or above the temperature limit.
	b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to §63.4567(e).	i. Collecting the pressure drop data according to §63.4568(f); ii. Reducing the pressure drop data to 3-hour block averages; and iii. Maintaining the 3-hour average pressure drop at or above the pressure drop limit.
6. Emission capture system that is a PTE according to §63.4565(a)	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.4568(g)(1) or the pressure drop across the enclosure according to §63.4568(g)(2); and ii. Maintaining the facial velocity of air flow 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 into the enclosure at all times.
	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	i. *See* items 6.a.i and 6.a.ii.
	c. The pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 CFR part 51.	i. *See* items 6.a.i and 6.a.ii.
7. Emission capture system that is not a PTE according to §63.4565(a)	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 §63.4567(f).	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.4568(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 PPPP of Part 63—Applicability of General Provisions to Subpart PPPP of Part 63

You must comply with the applicable General Provisions requirements according to the following table:

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.1(a)(1)-(12)	General Applicability	Yes	
§63.1(b)(1)-(3)	Initial Applicability Determination	Yes	Applicability to subpart PPPP is also specified in §63.4481.
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to subpart PPPP.

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.1(c)(5)	Extensions and Notifications	Yes	
§63.1(c)(6)	Reclassification	Yes	
§63.1(e)	Applicability of Permit Program Before Relevant Standard is Set	Yes	
§63.2	Definitions	Yes	Additional definitions are specified in §63.4581.
§63.3	Units and Abbreviations	Yes	
§63.4(a)(1)-(2)	Prohibited Activities	Yes	
§63.4(b)-(c)	Circumvention/Fragmentation	Yes	
§63.5(a)	Construction/Reconstruction	Yes	
§63.5(b)(1), (3), (4), (6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources	Yes	
§63.5(d)(1)(i)-(ii)(F), (d)(1)(ii)(H), (d)(1)(ii)(J), (d)(1)(iii), (d)(2)-(4)	Application for Approval of Construction/Reconstruction	Yes	
§63.5(e)	Approval of Construction/Reconstruction	Yes	
§63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review	Yes	
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes	
§63.6(b)(1)-(5), (b)(7)	Compliance Dates for New and Reconstructed Sources	Yes	Section 63.4483 specifies the compliance dates.
§63.6(c)(1), (2), (5)	Compliance Dates for Existing Sources	Yes	Section 63.4483 specifies the compliance dates.
§63.6(e)(1)(i)-(ii)	Operation and Maintenance	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.4500(b) for general duty requirement.
§63.6(e)(1)(iii)	Operation and Maintenance	Yes	
§63.6(e)(3)(i), (e)(3)(iii)-(ix)	SSMP	Yes before January 5, 2021. No on and after January 5, 2021	

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.6(f)(1)	Compliance Except During SSM	Yes before January 5, 2021. No on and after January 5, 2021	
§63.6(f)(2)-(3)	Methods for Determining Compliance	Yes	
§63.6(g)	Use of an Alternative Standard	Yes	
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart PPPP does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i)(1)-(14), (16)	Extension of Compliance	Yes	
§63.6(j)	Presidential Compliance Exemption	Yes	
§63.7(a)(1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§63.4564, 63.4565, and 63.4566.
§63.7(a)(2), except (a)(2)(i)-(viii)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section 63.4560 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§63.7(a)(3)-(4)	Performance Tests Required By the Administrator, Force Majeure	Yes	
§63.7(b)-(d)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.7(e)(1)	Conduct of Performance Tests	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.4500 and §63.4564(a).
§63.7(e)(2)-(4)	Conduct of Performance Tests	Yes	
§63.7(f)	Performance Test Requirements—Use Alternative Test Method	Yes	Applies to all test methods except those of used to determine capture system efficiency.
§63.7(g)-(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.8(a)(1)-(2)	Monitoring Requirements—Applicability	Yes	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 monitoring are specified in §63.4568.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart PPPP does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes	
§63.8(c)(1)	Continuous Monitoring System (CMS) Operation and Maintenance	Yes before January 5, 2021. No on and after January 5, 2021	Section 63.4568 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(2)-(3)	CMS Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in §63.4568.
§63.8(c)(4)	CMS	No	Section 63.4568 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(5)	COMS	No	Subpart PPPP does not have opacity or visible emission standards.
§63.8(c)(6)	CMS Requirements	No	Section 63.4568 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(7)	CMS Out-of-Control Periods	Yes	
§63.8(c)(8)	CMS Out-of-Control Periods and Reporting	No	Section 63.4520 requires reporting of CMS out-of-control periods.
§63.8(d)-(e)	Quality Control Program and CMS Performance Evaluation	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)-(5)	Use of an Alternative Monitoring Method	Yes	
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.8(g)	Data Reduction	No	Sections 63.4567 and 63.4568 specify monitoring data reduction.
§63.9(a)-(d)	Notification Requirements	Yes	

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart PPPP does not have opacity or visible emission standards.
§63.9(g)	Additional Notifications When Using CMS	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.9(h)(1)-(3), (5)-(6)	Notification of Compliance Status	Yes	Section 63.4510 specifies the dates for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes	
§63.9(j)	Change in Previous Information	Yes	
§63.9(k)	Electronic reporting procedures	Yes	Only as specified in §63.9(j).
§63.10(a)	Recordkeeping/Reporting—Applicability and General Information	Yes	
§63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§63.4530 and 63.4531.
§63.10(b)(2)(i)-(ii)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns and of Failures to Meet Standards	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.4530(h).
§63.10(b)(2)(iii)	Recordkeeping Relevant to Maintenance of Air Pollution Control and Monitoring Equipment	Yes	
§63.10(b)(2)(iv)-(v)	Actions Taken to Minimize Emissions During SSM	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.4530(h)(4) for a record of actions taken to minimize emissions during a deviation from the standard.
§63.10(b)(2)(vi)	Recordkeeping for CMS Malfunctions	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.4530(h) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§63.10(b)(2)(vii)-(xii)	Records	Yes	
§63.10(b)(2)(xiii)		No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.10(b)(2)(xiv)		Yes	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.10(c)(1), (5)-(6)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
§63.10(c)(7)-(8)	Additional Recordkeeping Requirements for Sources with CMS	No	*See* §63.4530(h) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§63.10(c)(10)-(14)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
§63.10(c)(15)	Records Regarding the SSMP	Yes before January 5, 2021. No on and after January 5, 2021	
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.4520.
§63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in §63.4520(b).
§63.10(d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart PPPP does not require opacity or visible emissions observations.
§63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	Yes	
§63.10(d)(5)	SSM Reports	Yes before January 5, 2021. No on and after January 5, 2021	*See* §63.4520(a)(7).
§63.10(e)(1)-(2)	Additional CMS Reports	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.4520(b) specifies the contents of periodic compliance reports.
§63.10(e)(4)	COMS Data Reports	No	Subpart PPPP does not specify requirements for opacity or COMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§63.11	Control Device Requirements/Flares	No	Subpart PPPP does not specify use of flares for compliance.
§63.12	State Authority and Delegations	Yes	
§63.13	Addresses	Yes	
§63.14	IBR	Yes	
§63.15	Availability of Information/Confidentiality	Yes	

[85 FR 41156, July 8, 2020, as amended at 85 FR 73907, Nov. 19, 2020]

Table 3 to Subpart PPPP 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 and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from table 4 to this subpart if neither the name or CAS number match.

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108-88-3	1.0	Toluene.
2. Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene.
3. Hexane	110-54-3	0.5	n-hexane.
4. n-Hexane	110-54-3	1.0	n-hexane.
5. Ethylbenzene	100-41-4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits	8032-32-4	0	None.
12. Ligroines (VM & P)	8032-32-4	0	None.
13. Lactol spirits	64742-89-6	0.15	Toluene.
14. Low aromatic white spirit	64742-82-1	0	None.
15. Mineral spirits	64742-88-7	0.01	Xylenes.
16. Hydrotreated naphtha	64742-48-9	0	None.
17. Hydrotreated light distillate	64742-47-8	0.001	Toluene.
18. Stoddard solvent	8052-41-3	0.01	Xylenes.
19. Super high-flash naphtha	64742-95-6	0.05	Xylenes.
20. Varsol® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

Table 4 to Subpart PPPP of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups[a]

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.

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic[b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic[c]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

[a]Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

[b]Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c]Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Table 5 to Subpart PPPP of Part 63—List of HAP That Must Be Counted Toward Total Organic HAP Content if Present at 0.1 Percent or More by Mass

Chemical name	CAS No.
1,1,2,2-Tetrachloroethane	79-34-5
1,1,2-Trichloroethane	79-00-5
1,1-Dimethylhydrazine	57-14-7
1,2-Dibromo-3-chloropropane	96-12-8
1,2-Diphenylhydrazine	122-66-7
1,3-Butadiene	106-99-0
1,3-Dichloropropene	542-75-6
1,4-Dioxane	123-91-1
2,4,6-Trichlorophenol	88-06-2
2,4/2,6-Dinitrotoluene (mixture)	25321-14-6
2,4-Dinitrotoluene	121-14-2
2,4-Toluene diamine	95-80-7
2-Nitropropane	79-46-9
3,3′-Dichlorobenzidine	91-94-1
3,3′-Dimethoxybenzidine	119-90-4
3,3′-Dimethylbenzidine	119-93-7
4,4′-Methylene bis(2-chloroaniline)	101-14-4

Chemical name	CAS No.
Acetaldehyde	75-07-0
Acrylamide	79-06-1
Acrylonitrile	107-13-1
Allyl chloride	107-05-1
alpha-Hexachlorocyclohexane (a-HCH)	319-84-6
Aniline	62-53-3
Benzene	71-43-2
Benzidine	92-87-5
Benzotrichloride	98-07-7
Benzyl chloride	100-44-7
beta-Hexachlorocyclohexane (b-HCH)	319-85-7
Bis(2-ethylhexyl)phthalate	117-81-7
Bis(chloromethyl)ether	542-88-1
Bromoform	75-25-2
Captan	133-06-2
Carbon tetrachloride	56-23-5
Chlordane	57-74-9
Chlorobenzilate	510-15-6
Chloroform	67-66-3
Chloroprene	126-99-8
Cresols (mixed)	1319-77-3
DDE	3547-04-4
Dichloroethyl ether	111-44-4
Dichlorvos	62-73-7
Epichlorohydrin	106-89-8
Ethyl acrylate	140-88-5
Ethylene dibromide	106-93-4
Ethylene dichloride	107-06-2
Ethylene oxide	75-21-8
Ethylene thiourea	96-45-7
Ethylidene dichloride (1,1-Dichloroethane)	75-34-3
Formaldehyde	50-00-0
Heptachlor	76-44-8
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3

Chemical name	CAS No.
Hexachloroethane	67-72-1
Hydrazine	302-01-2
Isophorone	78-59-1
Lindane (hexachlorocyclohexane, all isomers)	58-89-9
m-Cresol	108-39-4
Methylene chloride	75-09-2
Naphthalene	91-20-3
Nitrobenzene	98-95-3
Nitrosodimethylamine	62-75-9
o-Cresol	95-48-7
o-Toluidine	95-53-4
Parathion	56-38-2
p-Cresol	106-44-5
p-Dichlorobenzene	106-46-7
Pentachloronitrobenzene	82-68-8
Pentachlorophenol	87-86-5
Propoxur	114-26-1
Propylene dichloride	78-87-5
Propylene oxide	75-56-9
Quinoline	91-22-5
Tetrachloroethene	127-18-4
Toxaphene	8001-35-2
Trichloroethylene	79-01-6
Trifluralin	1582-09-8
Vinyl bromide	593-60-2
Vinyl chloride	75-01-4
Vinylidene chloride	75-35-4

[85 FR 41160, July 8, 2020]

Appendix A to Subpart PPPP of Part 63—Determination of Weight Volatile Matter Content and Weight Solids Content of Reactive Adhesives

1.0 APPLICABILITY AND PRINCIPLE

1.1 *Applicability:* This method applies to the determination of weight volatile matter content and weight solids content for most one-part or multiple-part reactive adhesives. Reactive adhesives are composed, in large part, of monomers that react during the adhesive curing reaction, and, as a result, do not volatilize. The monomers become integral parts of the cured adhesive through chemical reaction. At least 70 weight percent of the system, excluding water and non-volatile solids such as fillers, react during the process. This method is not appropriate for cyanoacrylates. For cyanoacrylates, South Coast Air Quality Management District Test Method 316B should be used. This method is not appropriate for one-part moisture cure urethane adhesives or for silicone adhesives. For one-part moisture cure urethane adhesives and for silicone adhesives, EPA Method 24 should be used.

1.2 Principle: One-part and multiple-part reactive adhesives undergo a reactive conversion from liquid to solid during the application and assembly process. Reactive adhesives are applied to a single surface, but then are usually quickly covered with another mating surface to achieve a bonded assembly. The monomers employed in such systems typically react and are converted to non-volatile solids. If left uncovered, as in a EPA Method 24 (or ASTM D2369-10 (Reapproved 2015)[e]) test, the reaction is inhibited by the presence of oxygen and volatile loss of the reactive components competes more heavily with the cure reaction. If this were to happen under normal use conditions, the adhesives would not provide adequate performance. This method minimizes this undesirable deterioration of the adhesive performance.

2.0 MATERIALS AND APPARATUS

2.1 Aluminum foil, aluminum sheet, non-leaching plastic film or non-leaching plastic sheet, approximately 3 inches by 3 inches. Precondition the foil, film, or sheet for 30 minutes in an oven at 110 ±5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the foil, film, or sheet.

2.2 Flat, rigid support panels slightly larger than the foil, film, or sheet. Polypropylene with a minimum thickness of ⅛ inch is recommended for the support panels. Precondition the support panels for 30 minutes in an oven at 110 ±5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the support panels.

2.3 Aluminum spacers, ⅛ inch thick. Precondition the spacers for 30 minutes in an oven at 110 ±5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the spacers.

2.4 Forced draft oven, type IIA or IIB as specified in ASTM E145-94 (Reapproved 2001), “Standard Specification for Gravity-Convection and Forced-Ventilation Ovens” (incorporated by reference, see §63.14).

2.5 Electronic balance capable of weighing to ±0.0001 grams (0.1 mg).

2.6 Flat bottom weight (approximately 3 lbs) or clamps.

Material and Apparatus Notes

1—The foil, film, or sheet should be thick or rigid enough so that it can be easily handled in the test procedure.

3.0 PROCEDURE

3.1 Two procedures are provided. In Procedure A the initial specimen weight is determined by weighing the foil, film, or sheet before and after the specimen is dispensed onto the foil, film, or sheet. In Procedure B the initial specimen weight is determined by weighing the adhesive cartridge (kit) before and after the specimen is dispensed.

3.2 At least four test specimens should be run for each test material. Run the test at room temperature, 74 degrees Fahrenheit (23 degrees Celsius).

Procedure A

1. Zero electronic balance.

2. Place 2 pieces of aluminum foil (or aluminum sheet, plastic film, or plastic sheet) on scale.

3. Record weight of aluminum foils. (A).

4. Tare balance.

5. Remove top piece of aluminum foil.

6. Dispense a 10 to 15 gram specimen of premixed adhesive onto bottom piece of aluminum foil. Place second piece of aluminum foil on top of the adhesive specimen to make a sandwich.

7. Record weight of sandwich (specimen and aluminum foils). (B).

8. Remove sandwich from scale, place sandwich between two support panels with aluminum spacers at the edges of the support panels to make a supported sandwich. The spacers provide a standard gap. Take care to mate the edges.

9. Place the supported sandwich on a flat surface.

10. Place the weight on top of the supported sandwich to spread the adhesive specimen to a uniform thickness within the sandwich. Check that no adhesive squeezes out from between the pieces of aluminum foil or through tears in the aluminum foil.

11. Allow to cure 24 hours.

12. Remove the sandwich from between the support panels. Record the weight of the sandwich. This is referred to as the 24 hr weight. (C).

13. Bake sandwich at 110 degrees Celsius for 1 hour.

14. Remove sandwich from the oven, place immediately in a desiccator, and cool to room temperature. Record post bake sandwich weight. (D).

Procedure B

1. Zero electronic balance.

2. Place two pieces of aluminum foil (or aluminum sheet, plastic film, or plastic sheet) on scale.

3. Record weight of aluminum foils. (A).

4. Tare balance.

5. Place one support panel on flat surface. Place first piece of aluminum foil on top of this support panel.

6. Record the weight of a pre-mixed sample of adhesive in its container. If dispensing the adhesive from a cartridge (kit), record the weight of the cartridge (kit) plus any dispensing tips. (F).

7. Dispense a 10 to 15 gram specimen of mixed adhesive onto the first piece of aluminum foil. Place second piece of aluminum foil on top of the adhesive specimen to make a sandwich.

8. Record weight of the adhesive container. If dispensing the adhesive from a cartridge (kit), record the weight of the cartridge (kit) plus any dispensing tips. (G).

9. Place the aluminum spacers at the edges of the bottom support panel polypropylene sheet. The spacers provide a standard gap.

10. Place the second support panel on top of the assembly to make a supported sandwich. Take care to mate the edges.

11. Place the supported sandwich on a flat surface.

12. Place the weight on top of the supported sandwich to spread the adhesive specimen to a uniform thickness within the sandwich. Check that no adhesive squeezes out from between the pieces of aluminum foil or through tears in the aluminum foil.

13. Allow to cure 24 hours.

14. Remove the sandwich from between the support panels. Record the weight of the sandwich. This is referred to as the 24 hr weight. (C).

15. Bake sandwich at 110 degrees Celsius for 1 hour.

16. Remove sandwich from the oven, place immediately in a desiccator, and cool to room temperature.

17. Record post-bake sandwich weight. (D).

Procedural Notes

1—The support panels may be omitted if the aluminum foil (or aluminum sheet, plastic film, or plastic sheet) will not tear and the adhesive specimen will spread to a uniform thickness within the sandwich when the flat weight is placed directly on top of the sandwich.

2—Clamps may be used instead of a flat bottom weight to spread the adhesive specimen to a uniform thickness within the sandwich.

3—When dispensing from a static mixer, purging is necessary to ensure uniform, homogeneous specimens. The weighing in Procedure B, Step 6 must be performed after any purging.

4—Follow the adhesive manufacturer's directions for mixing and for dispensing from a cartridge (kit).

4.0 CALCULATIONS

4.1 The total weight loss from curing and baking of each specimen is used to determine the weight percent volatile matter content of that specimen

Procedure A

Weight of original specimen (S) = (B)−(A)

Weight of post-bake specimen (P) = (D)−(A)

Total Weight Loss (L) = (S)−(P)

Procedure B

Weight of original specimen (S) = (F)−(G)

Weight of post-bake specimen (P) = (D)−(A)

Total Weight Loss (L) = (S)−(P)

Procedure A and Procedure B

Weight Percent Volatile Matter Content

(V) = [(Total weight loss)/(Initial specimen weight)] × 100 = [(L)/(S)] × 100

4.2 The weight volatile matter content of a material is the average of the weight volatile matter content of each specimen of that material. For example, if four specimens of a material were tested, then the weight percent volatile matter content for that material is:

$$V = [V1 + V2 + V3 + V4]/4$$

Where:

V_i = the weight percent volatile matter content of specimen i of the material.

4.3 The weight percent solids content of the material is calculated from the weight percent volatile content of the material.

Weight Percent Solids Content (N) = 100−(V)

Calculation Notes

1—The weight loss during curing and the weight loss during baking may be calculated separately. These values may be useful for identifying sources of variation in the results obtained for different specimens of the same material.

2—For both Procedure A and Procedure B, the weight loss during curing is (S)−[(C)−(A)] and the weight loss during baking is (C)−(D).

[69 FR 20990, Apr. 19, 2004, as amended at 85 FR 41161, July 8, 2020]

Attachment D

Part 70 Operating Permit No: 039-47470-00017

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

SOURCE: 69 FR 33506, June 15, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in § 63.6675, which includes operating according to the provisions specified in § 63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate 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 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 for the purpose specified in § 63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) ***Affected source.*** An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) ***Existing stationary RICE.***

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) ***New stationary RICE.***

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) ***Reconstructed stationary RICE.***

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.

(b) ***Stationary RICE subject to limited requirements.***

(1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of § 63.6645(f) and the requirements of §§ 63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) ***Stationary RICE subject to Regulations under 40 CFR Part 60.*** An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

§ 63.6595 When do I have to comply with this subpart?

(a) ***Affected sources.***

(1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) ***Area sources that become major sources.*** If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in § 63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

§ 63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

[78 FR 6701, Jan. 30, 2013]

§ 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in § 63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in § 63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in § 63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in § 63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in § 63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

§ 63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 1090.305 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 for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 1090.305 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) [Reserved]

(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, as amended at 85 FR 78463, Dec. 4, 2020; 87 FR 48607, Aug. 10, 2022]

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)

(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad (Eq.\ 1)$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_O = \frac{0.209\ F_d}{F_C} \quad (Eq.\ 2)$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO2} = \frac{5.9}{F_O} \quad (Eq.\ 3)$$

Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 - 15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq.\ 4)$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO2} = CO_2 correction factor, percent.

%CO_2 = Measured CO_2 concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.,* wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O_2 or CO_2 according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in § 63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in § 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2 concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in § 63.8(d). As specified in § 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also § 63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either § 63.6603(b)(1) or § 63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet § 63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

§ 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6645.

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4), 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 the purpose specified in paragraph (f)(2)(i) 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)-(iii) [Reserved]

(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 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 provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

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, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(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, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with § 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to § 63.10(d)(2).

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in § 63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in § 63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013; 85 FR 73912, Nov. 19, 2020]

§ 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 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)-(vi) {Reserved]

(vii) Hours spent for operation for the purpose specified in § 63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data

Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

§ 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 purpose specified in § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022]

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in § 63.6600 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in § 63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see § 63.14).

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101-549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in § 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in § 63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 63.6640(f)(4)(i) or (ii).

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in § 63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in § 63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to § 63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to § 63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6706, Jan. 30, 2013; 87 FR 48608, Aug. 10, 2022]

Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and using NSCR;	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.[1]
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and not using NSCR.	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6706, Jan. 30, 2013]

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2 until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6707, Jan. 30, 2013]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2.	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;	

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.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2.	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2.	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2.	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2.	

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[2]Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	

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.	

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[78 FR 6709, Jan. 30, 2013]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

[1]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6711, Jan. 30, 2013]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§ 63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter*and* the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A–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.
		ii. Measure the O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[13] (heated probe not necessary)	(b) Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device; and	(2) ASTM D6522–00 (Reapproved 2005)[123] (heated probe not necessary) or method 10 of 40 CFR part 60, appendix A–4	(c) The CO concentration must be at 15 percent O_2, dry basis.
		iv. Measure moisture content at the inlet and outlet of the control device as needed to determine CO and O_2 concentrations on a dry basis	(3) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[13]	(d) Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
2. 4SRB stationary RICE	a. Reduce formaldehyde or THC emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For formaldehyde, THC, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter*and* the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to section 8.1.2 of method 7E of 40 CFR part 60, appendix A.
		ii. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[13] (heated probe not necessary)	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device as needed to determine formaldehyde or THC and O_2 concentrations on a dry basis; and	(2) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[13]	(c) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device	(3) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[13] 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	(d) 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.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(4) (1) Method 25A, reported as propane, of 40 CFR part 60, appendix A–7	(e) THC concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter*and* the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to section 8.1.2 of method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)[13] (heated probe not necessary)	(b) Measurements to determine O_2 concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location as needed to determine formaldehyde or CO and O_2 concentrations on a dry basis; and	(2) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[13]	(c) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(3) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[13] 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	(d) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(4) Method 10 of 40 CFR part 60, appendix A–4, ASTM D6522–00 (2005),[13] method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03[13]	(e) CO concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[1] You may also use methods 3A and 10 as options to ASTM–D6522–00 (2005).

[2] 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.

[3] Incorporated by reference, see § 63.14.

[88 FR 18413, Mar. 29, 2023]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved[a]; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved[a]; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and
		iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent.[a]
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit[a]; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit[a]; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
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

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

[a]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6715, Jan. 30, 2013]

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in §63.6650, you must comply with the following requirements for reports:

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in §63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in §63.6650(b)(1)-(5).

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
4. Emergency stationary RICE that operate 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).

[87 FR 48608, Aug. 10, 2022]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	No	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§63.8(c)(2)-(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)-(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.9(k)	Electronic reporting procedures	Yes	Only as specified in §63.9(j).
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)-(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)-(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013; 85 FR 73912, Nov. 19, 2020]

Appendix A to Subpart ZZZZ of Part 63—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

1.0 SCOPE AND APPLICATION. WHAT IS THIS PROTOCOL?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O_2) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O_2).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O_2)	*7782-44-7*	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O_2, or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 SUMMARY OF PROTOCOL

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O_2 gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 DEFINITIONS

3.1 Measurement System. The total equipment required for the measurement of CO and O_2 concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O_2 and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre- sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 INTERFERENCES.

When present in sufficient concentrations, NO and NO_2 are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 SAFETY. [RESERVED]

6.0 EQUIPMENT AND SUPPLIES.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O_2 concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O_2; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 REAGENTS AND STANDARDS. WHAT CALIBRATION GASES ARE NEEDED?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O_2. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ±5 percent of the label value. Dry ambient air (20.9 percent O_2) is acceptable for calibration of the O_2 cell. If needed, any lower percentage O_2 calibration gas must be a mixture of O_2 in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O_2 Calibration Gas Concentration.

Select an O_2 gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O_2. When the average exhaust gas O_2 readings are above 6 percent, you may use dry ambient air (20.9 percent O_2) for the up-scale O_2 calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO_2).

8.0 SAMPLE COLLECTION AND ANALYSIS

8.1 Selection of Sampling Sites.

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the “sample conditioning phase” once per minute until constant readings are obtained. Then begin the “measurement data phase” and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the “measurement data phase” readings to calculate the average stack gas CO and O_2 concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ±10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ±3 percent, as instructed by the EC cell manufacturer.

9.0 QUALITY CONTROL (RESERVED)

10.0 CALIBRATION AND STANDARDIZATION

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O_2 and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ±3 percent of the up-scale gas value or ±1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ±0.3 percent O_2 for the O_2 channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this “sample conditioning phase” once per minute until readings are constant for at least two minutes. Then begin the “measurement data phase” and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the “measurement data phase” readings from the reported standard gas value must be less than or equal to ±5 percent or ±1 ppm for CO or ±0.5 percent O_2, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single “measurement data phase” reading must be less than or equal to ±2 percent or ±1 ppm for CO or ±0.5 percent O_2, whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

12.0 Calculations and Data Analysis

Determine the CO and O_2 concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the "measurement data phase".

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the "measurement data phase". The maximum allowable deviation from the mean for each of the individual readings is ±2 percent, or ±1 ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ±2 percent *or* ±1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO_2 gas standards that are generally recognized as representative of diesel-fueled engine NO and NO_2 emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

13.2.1 Interference Response. The combined NO and NO_2 interference response should be less than or equal to ±5 percent of the up-scale CO calibration gas concentration.

13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

13.3.2 Repeatability Check Calculations. Determine the highest and lowest average "measurement data phase" CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ±3 percent or ±1 ppm of the up-scale gas value, whichever is less restrictive.

14.0 Pollution Prevention (Reserved)

15.0 Waste Management (Reserved)

16.0 ALTERNATIVE PROCEDURES (RESERVED)

17.0 REFERENCES

(1) "Development of an Electrochemical Cell Emission Analyzer Test Protocol", Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.

(2) "Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers", EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.

(3) "ICAC Test Protocol for Periodic Monitoring", EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.

(4) "Code of Federal Regulations", Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

TABLE 1: APPENDIX A—SAMPLING RUN DATA.

Facility___________ Engine I.D.___________ Date______											
Run Type:	(_)				(_)				(_)		(_)
(X)	Pre-Sample Calibration				Stack Gas Sample				Post-Sample Cal. Check		Repeatability Check
Run #	1	1	2	2	3	3	4	4	Time	Scrub. OK	Flow- Rate
Gas	O_2	CO	O_2	CO	O_2	CO	O_2	CO			
Sample Cond. Phase											
″											
″											
″											
″											
Measurement Data Phase											
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Facility___________ Engine I.D.___________ Date______											
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[78 FR 6721, Jan. 30, 2013]

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	**Thor Wakarusa, LLC**
Source Location:	**606 Nelsons Parkway Wakarusa, IN 46573**
County:	**Elkhart**
SIC Code:	**3716 (Motor Homes)**
	3792 (Travel Trailers and Campers)
Permit Renewal No.:	**T 039-47470-00017**
Permit Reviewer:	**Madison Spahn**

On January 29, 2024, Thor Wakarusa, LLC 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 Thor Wakarusa, LLC relating to the operation of a stationary multi-plant complex which assembles and paints high-quality recreational vehicles that vary in floor plan and length. Thor Wakarusa, LLC, was issued its third Part 70 Operating Permit Renewal (T 039-40858-00017) on December 9, 2019.

Source Definition

Pursuant to CP 039-8662-00017, issued on January 9, 1998, Thor Wakarusa, LLC's Nelsons Parkway Complex consists of the following plants:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting)
(b) Plant 2-35 (final paint plant)
(c) Plant 20-820 (welding and sidewall lamination)
(d) Plant 22-822 (welding operations)
(e) Plant 23-823 (normal maintenance operations)
(f) Plant 24-824 (normal maintenance operations)
(g) Plant 25-825 (warehouse)
(h) Plant 26-826 (white glove inspection area and dispatch)
(i) Plant 28 (warehouse)
(j) Plant 29-829 (Diesel Service Center)
(k) Plant 32-7/8 (welding) and Plant 32A (warehouse)
(l) Plant 33-833 (compressor building)
(m) Plant 34-834 (warehouse)
(n) Plant 35-833E (fire pump Southeast of Plant 2)
(o) Plant 36-836 (welding operations)
(p) Plant 854 (Gasoline Service Center)
(q) Plant 55-5 (warehouse)
(r) Plant 56-5 (warehouse and welding)
(s) Plant 831 (flow coat lamination)

Thor Wakarusa, LLC also owns a motor home assembly operation, identified as Plant 450 (Plant ID# 039-00692), at 1060 East Waterford Street, Wakarusa, Indiana, 46573.

Since these twenty (20) plants are located on contiguous or adjacent properties, belong to the same industrial grouping, and are under common control of the same entity, they are considered one (1) source as defined by 326 IAC 2-7-1(22). This conclusion was initially determined under CP 039-8662-00017, issued on January 9, 1998, incorporated into Part 70 Operating Permit Renewal (T039-26937-00017) on August 19, 2010, and modified by Minor Source Modification No. 039-38507-00017.

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T 039-40858-00017 on December 9, 2019. The source has since received the following approval:

(a) Part 70 Minor Source Modification No. 039-40858-00017, issued on March 23, 2023; and

(b) Part 70 Administrative Amendment No. 039-46311-00017, issued on March 2023.

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:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(1) One (1) woodworking mill room, identified as D1-01, with a maximum capacity of 3260 pounds of wood per hour, using tools including (but not limited to) saws, routers, and planers, using a bagfilter collector as particulate control, constructed in 1997, and exhausting to stack DV1-01 when exhausting to the atmosphere. Sawdust is collected in a silo using a cyclone separator, with all air recirculated through the bagfilter collector. The unit can exhaust to the atmosphere or operate as a return air unit.

(2) One (1) sidewall adhesive application process, identified as SV1-6, with a maximum capacity of 1.5 vehicles per hour, using hand held non-atomizing applicators, with emissions uncontrolled, constructed in 1997. There is no direct exhaust route for this unit. A general ceiling vent, identified as SV1-6, is located in the vicinity.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the sidewall adhesive application process, identified as SV1-6 is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the sidewall adhesive application process, identified as SV1-6 is considered a part of an existing source.

(3) Three (3) manual assembly lines applying sealants, caulks, and cleaners, identified as Assembly Lines 1-Red, 2-Blue, and 3-White, with a maximum capacity of 3.5 vehicles per hour, each, using various hand tools, identified as D1-04, with emissions uncontrolled, all constructed in 1997, and exhausting to general ventilation vent GV1-01.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the manual assembly lines, identified as D1-04 are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the manual assembly lines, identified as D1-04 are considered considered a part of an existing source.

(4) One (1) double head drill press, identified as P850-DHD1, constructed in 2020, with a maximum capacity of 500 lb/hr, using no controls, and exhausting indoors.

(5) One (1) single head drill press, identified as P850-SHD1, constructed in 2020, with a maximum capacity of 500 lb/hr, using no controls, and exhausting indoors.

(6) Four (4) cut off saws, identified as P850-57, P850-59, P850-35, and P850-60, constructed in 2020, with a maximum capacity of 500 lb/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(7) Two (2) table saws, identified as P850-50 and P850-41, constructed in 2020, with a maximum capacity of 500 lb/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(8) One (1) belt sander, identified as P850-BS1, constructed in 2020, with a maximum capacity of 500 lbs/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

(9) Eight (8) cut off saws, identified as P850-46, P850-39, P850-43, P850-27, P850-6, P850-47, P850-48, P850-COS1, constructed in 2020, with a maximum capacity of 250 lb/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(10) One (1) table saw, identified as P850-TS1, constructed in 2020, with a maximum capacity of 250 lbs/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

(11) One (1) touch-up painting operation, identified as P850TP, constructed in 2020, with a maximum capacity of 1.50 units/hr, using no controls, and exhausting indoors.

Under 40 CFR 63, Subpart PPPP, this is considered a part of an existing source.

(b) Plant 2-35 (final paint plant) contains:

(1) One (1) full paint line, identified as Paint Line A, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-27, one (1) clearcoat booth, identified as SV2-28, and one (1) clearcoat/bake booth, identified as SV2-29, with a total maximum capacity of 10 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-27, SV2-28, and SV2-29, respectively; and

(B) Two (2) coating booths, identified as SV2-35 and SV2-36, applying basecoat and clear RTS using HVLP equipment or its equivalent, and controlled by dry filters; and

(C) One (1) natural gas-fired bake oven, identified as SV2-37, with a maximum heat input capacity of 4.0 MMBtu per hour; and

(D) Two (2) natural gas-fired air make-up units, each with a maximum heat input capacity of 4.0 MMBtu per hour.

(2) One (1) full paint line, identified as Paint Line B, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-20, one (1) seal and base booth, identified as SV2-21, and one (1) paint stripe booth, identified as SV2-22, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-20, SV2-21, and SV-22, respectively; and

(B) One (1) prep and repair booth, identified as SV2-23, one (1) clear and bake booth, identified as SV2-24, one (1) sand and repair station, identified as SV2-25, and one (1) reclear and bake booth, identified as SV2-26, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-23A and SV2-23B, SV2-24A and SV2-24B, SV2-25A and SV2-25B, and SV2-26A and SV2-26B, respectively.

(3) One (1) full paint line, identified as Paint Line C, consisting of:

(A) One (1) slideout paint and clear booth, identified as SV2-13, one (1) seal and base booth, identified as SV2-14, and one (1) paint stripe booth, identified as SV2-15, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-13, SV2-14, and SV2-15 respectively; and

(B) One (1) prep and repair booth, identified as SV2-16, one (1) clear and bake booth, identified as SV2-17, one (1) sand and repair station, identified as SV2-18, and one (1) reclear and bake booth, identified as SV2-19, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-16A and SV2-16B, SV2-17A and SV2-17B, SV2-18A and SV2-18B, and SV2-19A and SV2-19B, respectively.

(4) One (1) full paint line, identified as Paint Line D, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-7, and one (1) repair and stripe booth, identified as SV2-8, with a maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-7 and SV2-8, respectively; and

(B) One (1) slideout booth, identified as SV2-9, one (1) repair and clear booth, identified as SV2-10, one (1) sand and repair station, identified as SV2-11, and one (1) reclear booth, identified as SV2-12, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-9A and SV2-9B, SV2-10A and SV2-10B, SV2-11A and SV2-11B, and SV2-12A and SV2-12B, respectively.

(5) One (1) full paint line, identified as Paint Line E, consisting of:

(A) One (1) primer/basecoat booth, identified as SV2-1, and one (1) repair and stripe booth, identified as SV2-2, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-1 and SV2-2, respectively; and

(B) One (1) slideout booth, identified as SV2-3, one (1) repair and clear booth, identified as SV2-4, one (1) sand and repair station, identified as SV2-5, and one (1) reclear booth, identified as SV2-6, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-3A and SV2-3B, SV2-4A and SV2-4B, SV2-5A and SV2-5B, and SV2-6A and SV2-6B, respectively.

(6) One (1) repair line, consisting of:

(A) Three (3) paint repair booths, identified as SV2-30, SV2-31, and SV2-32, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, all using air-atomized spray applicators and dry filters as particulate control, all constructed in 1998, exhausting to stacks SV2-30, SV2-31, and SV2-32, respectively; and

(B) Two (2) paint repair booths, identified as SV2-33 and SV2-34, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, both using air-atomized spray applicators and dry filters as particulate control, both constructed in 2003, and exhausting to stacks SV2-33 and SV2-34, respectively.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 paint lines are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 paint lines are considered considered a part of an existing source.

(7) Seven (7) paint gun cleaners, identified as PGC1 through PGC7,

(c) Plant 20-820 (welding and sidewall lamination) contains:

(1) One (1) adhesive applicator, using roll coating to apply hot melt adhesives.

(2) One (1) sidewall welding operation, identified as EU20-B (formerly EU1-8), consisting of twenty-four (24) welding stations, with a maximum capacity of 3 pounds of wire per station per hour, with emissions uncontrolled, constructed prior to 1981, and exhausting to general ventilation stacks GV20-2A.

(d) Plant 26-826 (white glove inspection area and dispatch) contains:

Four (4) inspection bays for final vehicle inspection, with a maximum capacity of 3.5 vehicles per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, constructed prior to 1981, with emissions exhausting through general ventilation to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 inspection bays are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 26-826 inspection bays are considered considered a part of an existing source.

(e) Plant 29-829 (diesel service center):

(1) Thirteen (13) diesel-engine motor home service bays, constructed prior to 1989, modified in 2000 and 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the diesel service center is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the diesel service center is considered a part of an existing source.

(f) Plant 450 (motor home assembly)

(1) One (1) woodworking operation, identified as P450WW, constructed in 2017, with a maximum capacity of 2,500 pounds of wood per hour, equipped with an integral dust collector for particulate control, and exhausting to stack P450DC1S or indoors.

(2) One (1) motor home assembly line applying sealants, caulks, and cleaners, identified as P450AO, formerly L1-Gold, constructed in 2012 and modified in 2017, with a maximum capacity of 1.5 vehicles per hour, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, P450AO is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, P450AO is considered a part of an existing source.

(3) Four (4) cut off saws, identified as P450-1, P450-8, P450-11, and P450-20, constructed in 2020, with a maximum capacity of 250 lbs/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(4) One (1) double edge router, identified as P450-RT1, constructed in 2020, with a maximum capacity of 1,000 lbs/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

(g) Plant 854 (gasoline service center)

(1) One (1) gasoline-engine motor home service operation, constructed in 2017, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the gasoline-engine motor home service operation is considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the gasoline-engine motor home service operation is considered a part of an existing source.

(h) Plant 831 (lamination):

(1) Four (4) cut off saws, identified as P831-1, P831-3, P831-4, and P831-5, constructed in 2020, with a maximum capacity of 500 lbs/hr, each, equipped with integral dust collectors for particulate control, and exhausting indoors.

(2) One (1) table saw, identified as P831-TS1, constructed in 2020, with a maximum capacity of 500 lbs/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

(3) Three (3) sidewall routers, identified as P831SWR1, P831SWR2, and P831SWR3, constructed in 2020, with a maximum capacity of 1,200 lbs/hr, each, using no controls, and exhausting indoors.

(4) One (1) roof routers, identified as P831RR1, constructed in 2020, with a maximum capacity of 3,640 lbs/hr, using no controls, and exhausting indoors.

(5) Two (2) floor routers, identified as P831FR1 and P831FR2, constructed in 2020, with a maximum capacity of 1,860 lbs/hr, each, using no controls, and exhausting indoors.

(i) Plant 36-836 (woodworking operations) contains:

(1) One (1) cut off saw, identified as P836-COS1, constructed in 2020, with a maximum capacity of 250 lb/hr, using no controls, and exhausting indoors.

(2) One (1) table saw, identified as P836-TS1, constructed in 2020, with a maximum capacity of 500 lb/hr, equipped with an integral dust collector for particulate control, and exhausting indoors.

Insignificant Activities

The source also consists of the following insignificant activities:

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(1) Emergency generators as follows:

(A) One (1) Cummins Onan natural gas-fired emergency generator, with a maximum capacity of 60 kW and 80 hp, with emissions uncontrolled, constructed on or before January 28, 2004, and exhausting to stack SV1-7.

This unit is considered an existing affected source under 40 CFR 63, Subpart ZZZZ.

(2) Fiberglass cap windshield setting operations and repairs, with a maximum capacity of 3.5 vehicles per hour, using adhesives, with emissions uncontrolled, and exhausting to stack GV31-2.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the fiberglass cap windshield setting operations and repairs are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the fiberglass cap windshield setting operations and repairs are considered considered a part of an existing source.

(b) Plant 2-35 (final paint plant) contains:

(1) Two (2) paint prep areas, with a total maximum capacity of 4.5 vehicles and recreational vehicle components per hour, using solvents, cleaners, composites, and hand-sanding equipment for cleaning and body repair, using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, exhausting through general ventilation stacks GV2-3 through GV2-7.

(2) One (1) paint storage and mixing area, with a maximum capacity of 4.5 vehicles and recreational vehicle components per hour, with emissions uncontrolled, and exhausting to vents SV2-15 and SV2-16.

(3) One (1) final inspection area, consisting of two (2) lines, with a maximum capacity of 3.5 vehicles and recreational vehicle components per hour, using hand-held applicators to apply solvents, cleaners, sealants, adhesives, and paint, with emissions uncontrolled, constructed in 1998, and exhausting through general ventilation to stacks GV2-1 and GV2-2.

(4) One (1) adhesive applicator, using roll coating to apply hot melt adhesives.

(5) One (1) automatic paint gun cleaner, identified as PGC1, with a maximum capacity of five gallons.

(6) Six (6) manual paint gun cleaners, identified as PGC2 through PGC7, with a maximum capacity of five gallons, each.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 2-35 insignificant activities are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the Plant 2-35 insignificant activities are considered considered a part of an existing source.

(c) Plant 20-820 (welding and sidewall lamination) contains:

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

(A) One (1) natural gas-fired air makeup unit, identified as P820AM1, constructed in 2017, with a maximum heat input capacity of 0.028 MMBtu/hr, using no controls, and exhausting to stack P820AM1S.

(B) One (1) natural gas-fired thermo-cycler, identified as P820TC1, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, using no controls, and exhausting to stack P820TC1S.

(d) Plant 22-822 (welding operations), located at Plant 2-35 on June 21, 2004, contains:

(1) One (1) welding operation, identified as 22-822W, consisting of six (6) welding stations (formerly located in Plant 32-7/8), with a maximum capacity of 3 pounds of wire per station per hour, constructed in 1998, with emissions uncontrolled and exhausting indoors.

(e) Plant 26-826 (white glove inspection area and dispatch) contains:

(1) White glove inspection, with a maximum capacity of 1 vehicle per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, and exhausting to stacks GV26-1 through GV26-4.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the Plant 26-826 white glove inspection operations are considered a part of an existing source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the white glove inspection operations are considered considered a part of an existing source.

(f) Plant 32-7/8 (welding and warehouse) contains:

(1) Welding operations consisting of four (4) MIG welding stations (formerly located in Plant 20), with a maximum capacity of 3 pounds of wire per welder per hour, constructed in 1998, with emissions uncontrolled and exhausting indoors.

(g) Plant 35-833E (fire pump southeast of Plant 2-35) contains:

(1) One (1) diesel fire pump located southeast of Plant 2, with a maximum capacity of 140 HP, constructed in 1998.

Under 40 CFR 63, Subpart ZZZZ, this is considered a limited use existing source.

(h) Plant 56-5 (warehouse and welding) contains:

(1) Welding operations consisting of five (5) MIG welding stations, with a maximum capacity of 3 pounds of wire per welder per hour, with emissions uncontrolled, approved in 2012 for construction, and exhausting indoors.

(i) Plant 450 (motor home assembly):

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

(A) One (1) natural gas-fired space heater, identified as OH1, constructed in 2017, with a maximum heat input capacity of 0.12 MMBtu/hr, using no controls, and exhausting to stack OH1S.

(B) Two (2) natural gas-fired thermo-cyclers, identified as TC1 and TC2, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, each, using no controls, and exhausting to stacks TC1S and TC2S.

(C) One (1) natural gas-fired air makeup unit, identified as AM1, constructed in 2017, with a maximum heat input capacity of 0.97 MMBtu/hr, using no controls, and exhausting to stack AM1S.

(j) Plant 831 (lamination):

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

(A) Five (5) natural gas-fired thermo-cyclers, identified as P831TC1-P831TC5, constructed in 2017, with a maximum heat input capacity of 0.72 MMBtu/hr, each, using no controls, and exhausting to stacks P831TC1S-P831TC5S.

(B) One (1) natural gas-fired thermo-cycler, identified as P831TC6, constructed in 2017, with a maximum heat input capacity of 0.58 MMBtu/hr, using no controls, and exhausting to stack P831TC6S.

(C) One (1) natural gas-fired furnace, identified as P831SH1, constructed in 2017, with a maximum heat input capacity of 0.075 MMBtu/hr, using no controls, and exhausting to stack P831SH1S.

(D) Two (2) natural gas-fired furnaces, identified as P831SH2 and P831SH3, constructed in 2017, with a maximum heat input capacity of 0.09

MMBtu/hr, each, using no controls, and exhausting to stacks P831SH2S and P831SH3S.

(E) One (1) natural gas-fired furnace, identified as P831SH4, constructed in 2017, with a maximum heat input capacity of 0.11 MMBtu/hr, using no controls, and exhausting to stack P831SH4S.

(2) Emergency generators as follows:

(A) One (1) diesel emergency generator, identified as EG2, constructed in 2017, with a maximum engine output of 480 horsepower, using no controls, and exhausting to stack EG2S.

Under the NSPS, 40 CFR 60, Subpart IIII, the diesel emergency generator, identified as EG2, is an affected source.

Under the NESHAP, 40 CFR 63, Subpart ZZZZ, the diesel emergency generator, identified as EG2, is a new stationary RICE located at a major source of HAP emissions.

(3) Flow coat lamination machines as follows:

(A) One (1) flow coat lamination machine, identified as FCL1, permitted in 2010 and modified in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting to stack GV1-1

(B) One (1) flow coat lamination machine, identified as FCL2, permitted in 2015 and modified in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(C) One (1) flow coat lamination machine, identified as FCL3 (formerly GV32-1), permitted in 2010 and modified in 2017, with a maximum capacity of 3.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(D) Six (6) flow coat laminating machines, identified as FCL4-FCL9, constructed in 2017, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, each, using no controls and exhausting indoors.

Under the NESHAP, 40 CFR 63, Subpart MMMM, the flow coat laminating machines, identified as FCL1-FCL9, are part of an existing affected source.

Under the NESHAP, 40 CFR 63, Subpart PPPP, the flow coat laminating machines, identified as FCL1-FCL9, are part of an existing affected source.

(k) Plant 20-820 (welding and sidewall lamination) contains:

(1) Welding operations as follows:

(A) Welding operations consisting of ten (10) welding stations, with a maximum capacity of 3 pounds of wire per welder per hour, with emissions uncontrolled, constructed in 1998, and exhausting to general ventilation stacks GV20-2 through GV20-10.

(B) Welding operations consisting of fifteen (15) MIG welding stations (formerly located in Plant 31), with a maximum capacity of 3 pounds of wire per welder per hour, constructed in 1998, with emissions uncontrolled and exhausting to general ventilation stacks GV20-2 through GV20-10.

(C) Nine (9) steel welding stations, identified as EU20-820CS, constructed in 2017, with a maximum capacity of 3 pounds of wire per hour, each, using no controls and exhausting indoors.

(D) Sixteen (16) aluminum welding stations, identified as EU20-820CA, constructed in 2017, with a maximum capacity of 3 pounds of wire per hour, each, using no controls and exhausting indoors.

(l) Plant 28-828 (warehouse) contains:

(1) One (1) wire harness assembly operation, identified as WHA, permitted in 2016, with a maximum capacity of 0.025 pounds of solder per hour, and 0.0039 pounds of flux per hour, and exhausting to stack WHAS.

(m) Plant 36-836 (welding operations) contains:

(1) Welding operations consisting of forty-four (44) MIG welding stations, with a maximum capacity of 3 pounds of wire per welder per hour, constructed in 1998, with emissions uncontrolled and exhausting indoors.

(n) Plant 450 (motor home assembly):

(1) Fuel dispensing activities as follows:

(A) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons, as follows:

(i) One (1) gasoline storage tank, identified as GT1, constructed in 2017, with a maximum capacity of 1,000 gallons and a maximum throughput of 25,000 gallons per year, using no control and exhausting to stack GT1S.

(B) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, as follows:

(i) One (1) diesel fuel storage tank, identified as DT1, constructed in 2017, with a maximum capacity of 300 gallons and a maximum throughput of 25,000 gallons per year, using no control and exhausting to stack DT1S.

(2) One (1) set of miscellaneous RV manufacturing processes, identified as P450MO, constructed in 2017, as follows:

(A) Two (2) woodworking drill machines, identified as DM1 and DM2, with a maximum capacity of 100 pounds of wood stock per hour, each.

(B) Two (2) woodworking band saws, identified as BS1 and BS2, with a maximum capacity of 100 pounds of wood stock per hour, each.

(C) One (1) aluminum-cutting band saw, identified as BS3, with a maximum capacity of 100 pounds of aluminum stock per hour.

(D) Five (5) aluminum-cutting chop saws, identified as CS1 - CS5, with a maximum capacity of 100 pounds of aluminum stock per hour, each.

(E) One (1) aluminum-cutting abrasive saw, identified as AS1, with a maximum capacity of 100 pounds of aluminum stock per hour.

(o) Plant 831 (lamination):

(1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons, as follows.

(A) One (1) diesel fuel tank, identified as EG2DT, constructed in 2017, with a maximum storage capacity of 450 gallons, using no controls, and exhausting to stack EG2DTS.

"Integral Part of the Process" Determination

In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge ("ALJ") Garrettson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, the potential to emit particulate matter from the woodworking operations was calculated after control for purposes of determining permitting level and applicability of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC (Prevention of Significant Deterioration PSD)).

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 Elkhart County.

Pursuant to amendments to Indiana Code IC 13-17-3-14, effective July 1, 2023, a federal regulation that classifies or amends a designation of attainment, nonattainment, or unclassifiable for any area in Indiana under the federal Clean Air Act is effective and enforceable in Indiana on the effective date of the federal regulation.

Pollutant	Designation
SO_2	Unclassifiable or attainment effective April 9, 2018, for the 2010 primary 1-hour SO_2 standard. Better than national secondary standards effective March 3, 1978.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective January 16, 2018, for the 2015 8-hour ozone standard.
$PM_{2.5}$	Unclassifiable or attainment effective April 15, 2015, for the 2012 annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 2006 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.

Pollutant	Designation
NO_2	Unclassifiable or attainment effective January 29, 2012, for the 2010 NO_2 standard.
Pb	Unclassifiable or attainment effective December 31, 2011, for the 2008 lead standard.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements of Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Elkhart County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements of Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Elkhart 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

Since 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), and there is no applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

The fugitive emissions of hazardous air pollutants (HAP) are counted toward the determination of Part 70 Permit applicability and source status under Section 112 of the Clean Air Act (CAA).

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) 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.

	Unrestricted Potential Emissions (ton/year)							
	PM[1]	PM_{10}[1]	$PM_{2.5}$[1, 2]	SO_2	NO_X	VOC	CO	Pb
Total PTE of Entire Source Excluding Fugitive Emissions*	264.93	265.41	265.41	1.55	31.40	715.19	142.46	9.80E-05
Title V Major Source Thresholds	NA	100	100	100	100	100	100	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	--

[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 PM10, PM2.5, and VOC is 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.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)							
	PM[1]	PM_{10}[1]	$PM_{2.5}$[1, 2]	SO_2	NO_X	VOC	CO	PB
Total PTE of Entire Source Excluding Fugitive Emissions*	86.54	87.02	87.02	1.55	31.40	812.46	12.46	9.80E-05
Title V Major Source Thresholds	NA	100	100	100	100	100	100	10

	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)							
	PM[1]	PM_{10}[1]	$PM_{2.5}$[1, 2]	SO_2	NO_X	VOC	CO	PB
PSD Major Source Thresholds	250	250	250	250	250	250	250	--

[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 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 a PSD regulated pollutant, VOC, 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 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 one (1) gasoline storage tank (GT1), the one (1) diesel fuel storage tank (DT1), and the one (1) diesel fuel tank (EG2DT), because the capacity of each of the tanks is less than 75 m^3 (19,800 gallons).

(b) The requirements of the New Source Performance Standard for Automobile and Light Duty Truck Surface Coating Operations, 40 CFR 60, Subpart MM and 326 IAC 12, are not included in the permit, because the source does not coat automobiles or light duty trucks.

(c) The requirements of the New Source Performance Standard for Bulk Gasoline Terminals, 40 CFR 60, Subpart XX and 326 IAC 12, are not included in the permit for the gasoline storage tank, identified as GT1, because the unit is not a bulk gasoline terminal as defined at 40 CFR 60.501. The tank is not a gasoline facility which receives gasoline by pipeline, ship or barge.

(d) The requirements of the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII)(326 IAC 12) are included in the permit for the one (1) diesel emergency generator (EG2), because the engine is a stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions.

The units subject to this rule include the following:

(1) One (1) diesel emergency generator, identified as EG2, constructed in 2017, with a maximum engine output of 480 horsepower, using no controls, and exhausting to stack EG2S.

Emergency generator EG2 is subject to the following portions of Subpart IIII.

(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
(6) 40 CFR 60.4211(a), (c), (f)(1), (f)(2)(i), (f)(3), and (g)(2)
(7) 40 CFR 60.4211
(8) 40 CFR 60.4212
(9) 40 CFR 60.4214(b)
(10) 40 CFR 60.4218
(11) 40 CFR 60.4219
(12) Table 8 to Subpart IIII of Part 60

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to emergency generator EG2 except as otherwise specified in 40 CFR 60, Subpart IIII.

(e) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ) are not included in the permit for the one (1) Cummins Onan natural gas-fired emergency generator, located at Plant 1, because it was constructed before the applicability date, June 12, 2006.

(f) 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 requirements of the National Emission Standards for Hazardous Air Pollutants for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)(40 CFR 60, Subpart R)(326 IAC 20-10) are not included in the permit for the gasoline storage tank, identified as GT1, because the unit is not a bulk gasoline terminal as defined at 40 CFR 63.421. The tank is not a gasoline facility which receives gasoline by pipeline, ship or barge.

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (40 CFR 60, Subpart CC)(326 IAC 20-16) are not included in the permit for the one (1) gasoline storage tank, identified as GT1, because the unit is not a petroleum refining process unit as defined at 40 CFR 63.641. The source is not an establishment primarily engaged in petroleum refining as defined in the Standard Industrial Classification code for petroleum refining (2911).

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Automobiles and Light Duty Trucks (40 CFR 63, Subpart IIII)(326 IAC 20-85) are not included in the permit, because the source does not coat new automobiles or new light duty trucks.

(d) 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)(326 IAC 20-80) are included in the permit because the surface coating operations use more than one hundred (100) gallons per year of coating containing HAPs coatings and is located at a major source of HAPs.

The emission units subject to this rule are as follows:

(1) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(B) One (1) sidewall adhesive application process, identified as SV1-6, with a maximum capacity of 1.5 vehicles per hour, using hand held non-atomizing applicators, with emissions uncontrolled, constructed in 1997. There is no direct exhaust route for this unit. A general ceiling vent, identified as SV1-6, is located in the vicinity.

(C) Three (3) manual assembly lines applying sealants, caulks, and cleaners, identified as Assembly Lines 1-Red, 2-Blue, and 3-White, with a maximum capacity of 3.5 vehicles per hour, each, using various hand tools, identified as D1-04, with emissions uncontrolled, all constructed in 1997, and exhausting to general ventilation vent GV1-01.

(4) One (1) undercoating operation for coating metal chassis, consisting of (2) paint bays, with a maximum capacity of 3.5 vehicles per hour, using non-atomized spray applicators, constructed in 1998, was located in Plant 2-35 in June 21, 2004 and moved from Plant 2-35 in 2014 to Plant 22 and then from Plant 22 in 2019 to Plant 1-850, and venting inside of the building.

(2) Plant 2-35 (final paint plant) contains:

(A) One (1) full paint line, identified as Paint Line A, consisting of:

(i) One (1) primer/basecoat booth, identified as SV2-27, one (1) clearcoat booth, identified as SV2-28, and one (1) clearcoat/bake booth, identified as SV2-29, with a total maximum capacity of 10 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-27, SV2-28, and SV2-29, respectively; and

(ii) Two (2) coating booths, identified as SV2-35 and SV2-36, applying basecoat and clear RTS using HVLP equipment or its equivalent, and controlled by dry filters; and

(B) One (1) full paint line, identified as Paint Line B, consisting of:

(i) One (1) slideout paint and clear booth, identified as SV2-20, one (1) seal and base booth, identified as SV2-21, and one (1) paint stripe booth, identified as SV2-22, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-20, SV2-21, and SV-22, respectively; and

(ii) One (1) prep and repair booth, identified as SV2-23, one (1) clear and bake booth, identified as SV2-24, one (1) sand and repair station, identified as SV2-25, and one (1) reclear and bake booth, identified as SV2-26, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-23A and SV2-23B, SV2-24A and SV2-24B, SV2-25A and SV2-25B, and SV2-26A and SV2-26B, respectively.

(C) One (1) full paint line, identified as Paint Line C, consisting of:

(i) One (1) slideout paint and clear booth, identified as SV2-13, one (1) seal and base booth, identified as SV2-14, and one (1) paint stripe booth, identified as SV2-15, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-13, SV2-14, and SV2-15 respectively; and

(ii) One (1) prep and repair booth, identified as SV2-16, one (1) clear and bake booth, identified as SV2-17, one (1) sand and repair station, identified as SV2-18, and one (1) reclear and bake booth, identified as SV2-19, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-16A and SV2-16B, SV2-17A and SV2-17B, SV2-18A and SV2-18B, and SV2-19A and SV2-19B, respectively.

(D) One (1) full paint line, identified as Paint Line D, consisting of:

(i) One (1) primer/basecoat booth, identified as SV2-7, and one (1) repair and stripe booth, identified as SV2-8, with a maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-7 and SV2-8, respectively; and

(ii) One (1) slideout booth, identified as SV2-9, one (1) repair and clear booth, identified as SV2-10, one (1) sand and repair station, identified as SV2-11, and one (1) reclear booth, identified as SV2-12, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-9A and SV2-9B, SV2-10A and SV2-10B, SV2-11A and SV2-11B, and SV2-12A and SV2-12B, respectively.

(E) One (1) full paint line, identified as Paint Line E, consisting of:

(i) One (1) primer/basecoat booth, identified as SV2-1, and one (1) repair and stripe booth, identified as SV2-2, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-1 and SV2-2, respectively; and

(ii) One (1) slideout booth, identified as SV2-3, one (1) repair and clear booth, identified as SV2-4, one (1) sand and repair station, identified as SV2-5, and one (1) reclear booth, identified as SV2-6, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-3A and SV2-3B, SV2-4A and SV2-4B, SV2-5A and SV2-5B, and SV2-6A and SV2-6B, respectively.

(F) One (1) repair line, consisting of:

(i) Three (3) paint repair booths, identified as SV2-30, SV2-31, and SV2-32, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, all using air-atomized spray applicators and dry filters as particulate control, all constructed in 1998, exhausting to stacks SV2-30, SV2-31, and SV2-32, respectively; and

(ii) Two (2) paint repair booths, identified as SV2-33 and SV2-34, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, both using air-atomized spray applicators and dry filters as particulate control, both constructed in 2003, and exhausting to stacks SV2-33 and SV2-34, respectively.

(3) Plant 26-826 (white glove inspection area and dispatch) contains:

(A) Four (4) inspection bays for final vehicle inspection, with a maximum capacity of 3.5 vehicles per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, constructed prior to 1981, with emissions exhausting through general ventilation to stacks GV26-1 through GV26-4.

(4) Plant 29-829 (diesel service center):

(A) Thirteen (13) diesel-engine motor home service bays, constructed prior to 1989, modified in 2000, approved in 2017 for modification, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

(5) Plant 450 (motor home assembly)

(A) One (1) motor home assembly line applying sealants, caulks, and cleaners, identified as P450AO, formerly L1-Gold, constructed in 2012, approved in 2017 for modification, with a maximum capacity of 1.5 vehicles per hour, and exhausting indoors.

(6) Plant 854 (gasoline service center)

(A) One (1) gasoline-engine motor home service operation, approved in 2017 for construction, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Insignificant Activities:

(1) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(A) Fiberglass cap windshield setting operations and repairs, with a maximum capacity of 3.5 vehicles per hour, using adhesives, with emissions uncontrolled, and exhausting to stack GV31-2.

(2) Plant 2-35 (final paint plant) contains:

(A) Two (2) paint prep areas, with a total maximum capacity of 4.5 vehicles and recreational vehicle components per hour, using solvents, cleaners, composites, and hand-sanding equipment for cleaning and body repair, using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, exhausting through general ventilation stacks GV2-3 through GV2-7.

(B) One (1) paint storage and mixing area, with a maximum capacity of 4.5 vehicles and recreational vehicle components per hour, with emissions uncontrolled, and exhausting to vents SV2-15 and SV2-16.

(C) One (1) final inspection area, consisting of two (2) lines, with a maximum capacity of 3.5 vehicles per hour, using hand-held applicators to apply solvents, cleaners, sealants, adhesives, and paint, with emissions uncontrolled, constructed in 1998, and exhausting through general ventilation to stacks GV2-1 and GV2-2.

(3) Plant 26-826 (white glove inspection area and dispatch) contains:

(A) White glove inspection, with a maximum capacity of 1 vehicle per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, and exhausting to stacks GV26-1 through GV26-4.

(4) Plant 831 (lamination):

(A) Flow coat lamination machines as follows:

(i) One (1) flow coat lamination machine, identified as FCL1, permitted in 2010, approved in 2017 for modification, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting to stack GV1-1

(ii) One (1) flow coat lamination machine, identified as FCL2, permitted in 2015, approved in 2017 for modification, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(iii) One (1) flow coat lamination machine, identified as FCL3 (formerly GV32-1), permitted in 2010, approved in 2017 for modification, with a maximum capacity of 3.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(iv) Six (6) flow coat laminating machines, identified as FCL4-FCL9, approved in 2017 for construction, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, each, using no controls and exhausting indoors.

These units are subject to the following portions of 40 CFR 63, Subpart MMMM:

(1) 40 CFR 63.3880
(2) 40 CFR 63.3881(a)(1) through (3), (b), (c)(1), (c)(2), (c)(3), (c)(6), (e)
(3) 40 CFR 63.3882
(4) 40 CFR 63.3883
(5) 40 CFR 63.3890(a)(1), (a)(2), (b)(1), (b)(2), (c)
(6) 40 CFR 63.3891(a), (b)
(7) 40 CFR 63.3892(a)
(8) 40 CFR 63.3893(a)
(9) 40 CFR 63.3900(a)(1), (b)
(10) 40 CFR 63.3901
(11) 40 CFR 63.3910(a), (b), (c)(1) through (8), (c)(10), (c)(11)
(12) 40 CFR 63.3920(a)(1) through (6)
(13) 40 CFR 63.3930(a), (b), (c)(1), (c)(2), (c)(3), (c)(4)(v), (d), (e), (f), (g), (h), (j)
(14) 40 CFR 63.3931
(15) 40 CFR 63.3940
(16) 40 CFR 63.3941
(17) 40 CFR 63.3942
(18) 40 CFR 63.3950
(19) 40 CFR 63.3951
(20) 40 CFR 63.3952
(21) 40 CFR 63.3963(a), (b), (j)
(22) 40 CFR 63.3980

(23) 40 CFR 63.3981
(24) Table 2
(25) Table 3
(26) Table 4

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to this source, except as otherwise specified in 40 CFR 63, Subpart MMMM.

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63, Subpart MMMM and 326 IAC 20-81 are not included in the permit for the one (1) touch-up painting operation, identified as P850TP, because it does not coat miscellaneous metal parts and products.

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Parts and Products (40 CFR 63, Subpart PPPP)(326 IAC 20-81) are included in the permit because the source uses more than 250 gallons of coating per year containing HAPs, coats miscellaneous plastic parts and products, and is a major source of HAPs.

The emission units subject to this rule are as follows:

(1) Plant 1-850 (motorized vehicle assembly and tile floor setting):

(A) One (1) sidewall adhesive application process, identified as SV1-6, with a maximum capacity of 1.5 vehicles per hour, using hand held non-atomizing applicators, with emissions uncontrolled, constructed in 1997. There is no direct exhaust route for this unit. A general ceiling vent, identified as SV1-6, is located in the vicinity.

(B) Three (3) manual assembly lines applying sealants, caulks, and cleaners, identified as Assembly Lines 1-Red, 2-Blue, and 3-White, with a maximum capacity of 3.5 vehicles per hour, each, using various hand tools, identified as D1-04, with emissions uncontrolled, all constructed in 1997, and exhausting to general ventilation vent GV1-01.

(C) One (1) touch-up painting operation, identified as P850TP, constructed in 2020, with a maximum capacity of 1.50 units/hr, using no controls, and exhausting indoors.

(2) Plant 2-35 (final paint plant) contains:

(A) One (1) full paint line, identified as Paint Line A, consisting of:

(i) One (1) primer/basecoat booth, identified as SV2-27, one (1) clearcoat booth, identified as SV2-28, and one (1) clearcoat/bake booth, identified as SV2-29, with a total maximum capacity of 10 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-27, SV2-28, and SV2-29, respectively; and

(ii) Two (2) coating booths, identified as SV2-35 and SV2-36, applying basecoat and clear RTS using HVLP equipment or its equivalent, and controlled by dry filters; and

(B) One (1) full paint line, identified as Paint Line B, consisting of:

(i) One (1) slideout paint and clear booth, identified as SV2-20, one (1) seal and base booth, identified as SV2-21, and one (1) paint stripe booth, identified as SV2-22, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-20, SV2-21, and SV-22, respectively; and

(ii) One (1) prep and repair booth, identified as SV2-23, one (1) clear and bake booth, identified as SV2-24, one (1) sand and repair station, identified as SV2-25, and one (1) reclear and bake booth, identified as SV2-26, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-23A and SV2-23B, SV2-24A and SV2-24B, SV2-25A and SV2-25B, and SV2-26A and SV2-26B, respectively.

(C) One (1) full paint line, identified as Paint Line C, consisting of:

(i) One (1) slideout paint and clear booth, identified as SV2-13, one (1) seal and base booth, identified as SV2-14, and one (1) paint stripe booth, identified as SV2-15, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-13, SV2-14, and SV2-15 respectively; and

(ii) One (1) prep and repair booth, identified as SV2-16, one (1) clear and bake booth, identified as SV2-17, one (1) sand and repair station, identified as SV2-18, and one (1) reclear and bake booth, identified as SV2-19, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, and exhausting to stacks SV2-16A and SV2-16B, SV2-17A and SV2-17B, SV2-18A and SV2-18B, and SV2-19A and SV2-19B, respectively.

(D) One (1) full paint line, identified as Paint Line D, consisting of:

(i) One (1) primer/basecoat booth, identified as SV2-7, and one (1) repair and stripe booth, identified as SV2-8, with a maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-7 and SV2-8, respectively; and

(ii) One (1) slideout booth, identified as SV2-9, one (1) repair and clear booth, identified as SV2-10, one (1) sand and repair station, identified as SV2-11, and one (1) reclear booth, identified as SV2-12, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-9A and SV2-9B, SV2-10A and SV2-10B, SV2-11A and SV2-11B, and SV2-12A and SV2-12B, respectively.

(E) One (1) full paint line, identified as Paint Line E, consisting of:

(i) One (1) primer/basecoat booth, identified as SV2-1, and one (1) repair and stripe booth, identified as SV2-2, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-1 and SV2-2, respectively; and

(ii) One (1) slideout booth, identified as SV2-3, one (1) repair and clear booth, identified as SV2-4, one (1) sand and repair station, identified as SV2-5, and one (1) reclear booth, identified as SV2-6, with an aggregate maximum capacity of 5 vehicles and recreational vehicle components per day, using HVLP spray applicators (or their equivalent), using dry filters as particulate control, constructed in 2003, and exhausting to stacks SV2-3A and SV2-3B, SV2-4A and SV2-4B, SV2-5A and SV2-5B, and SV2-6A and SV2-6B, respectively.

(F) One (1) repair line, consisting of:

(i) Three (3) paint repair booths, identified as SV2-30, SV2-31, and SV2-32, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, all using air-atomized spray applicators and dry filters as particulate control, all constructed in 1998, exhausting to stacks SV2-30, SV2-31, and SV2-32, respectively; and

(ii) Two (2) paint repair booths, identified as SV2-33 and SV2-34, with an aggregate maximum capacity of 3.5 vehicles and recreational vehicle components per hour, both using air-atomized spray applicators and dry filters as particulate control, both constructed in 2003, and exhausting to stacks SV2-33 and SV2-34, respectively.

(3) Plant 26-826 (white glove inspection area and dispatch) contains:

(A) Four (4) inspection bays for final vehicle inspection, with a maximum capacity of 3.5 vehicles per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, constructed prior to 1981, with emissions exhausting through general ventilation to stacks GV26-1 through GV26-4.

(4) Plant 29-829 (diesel service center):

(A) Thirteen (13) diesel-engine motor home service bays, constructed prior to 1989, modified in 2000, approved in 2017 for modification, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

(5) Plant 450 (motor home assembly)

(A) One (1) motor home assembly line applying sealants, caulks, and cleaners, identified as P450AO, formerly L1-Gold, constructed in 2012, approved in 2017 for modification, with a maximum capacity of 1.5 vehicles per hour, and exhausting indoors.

(6) Plant 854 (gasoline service center)

(A) One (1) gasoline-engine motor home service operation, approved in 2017 for construction, with a maximum capacity of 250 vehicles per year, and exhausting indoors.

Insignificant Activities:

(1) Plant 1-850 (motorized vehicle assembly and tile floor setting) contains:

(A) Fiberglass cap windshield setting operations and repairs, with a maximum capacity of 3.5 vehicles per hour, using adhesives, with emissions uncontrolled, and exhausting to stack GV31-2.

(2) Plant 2-35 (final paint plant) contains:

(A) Two (2) paint prep areas, with a total maximum capacity of 4.5 vehicles and recreational vehicle components per hour, using solvents, cleaners, composites, and hand-sanding equipment for cleaning and body repair, using dry filters as particulate control, constructed in 1997 and reconstructed in 2003, exhausting through general ventilation stacks GV2-3 through GV2-7.

(B) One (1) paint storage and mixing area, with a maximum capacity of 4.5 vehicles and recreational vehicle components per hour, with emissions uncontrolled, and exhausting to vents SV2-15 and SV2-16.

(C) One (1) final inspection area, consisting of two (2) lines, with a maximum capacity of 3.5 vehicles per hour, using hand-held applicators to apply solvents, cleaners, sealants, adhesives, and paint, with emissions uncontrolled, constructed in 1998, and exhausting through general ventilation to stacks GV2-1 and GV2-2.

(3) Plant 26-826 (white glove inspection area and dispatch) contains:

(A) White glove inspection, with a maximum capacity of 1 vehicle per hour, using hand-applied cleaners, sealants, touch-up paints, and adhesives, with emissions uncontrolled, and exhausting to stacks GV26-1 through GV26-4.

(4) Plant 831 (lamination):

(A) Flow coat lamination machines as follows:

(i) One (1) flow coat lamination machine, identified as FCL1, permitted in 2010, approved in 2017 for modification, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting to stack GV1-1

(ii) One (1) flow coat lamination machine, identified as FCL2, permitted in 2015, approved in 2017 for modification, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(iii) One (1) flow coat lamination machine, identified as FCL3 (formerly GV32-1), permitted in 2010, approved in 2017 for modification, with a maximum capacity of 3.50 panels (42 ft x 8 ft, maximum) per hour, using no controls and exhausting indoors.

(iv) Six (6) flow coat laminating machines, identified as FCL4-FCL9, approved in 2017 for construction, with a maximum capacity of 10.50 panels (42 ft x 8 ft, maximum) per hour, each, using no controls and exhausting indoors.

This emission units are subject to the following portions of Subpart PPPP:

(1) 40 CFR 63.4480

(2) 40 CFR 63.4481
(3) 40 CFR 63.4482(a), (b), and (e)
(4) 40 CFR 63.4483
(5) 40 CFR 63.4490(b)(1), (c)(1), and (c)(2)
(6) 40 CFR 63.4491(a) and (b)
(7) 40 CFR 63.4492(a)
(8) 40 CFR 63.4493(a)
(9) 40 CFR 63.4500(a)(1)
(10) 40 CFR 63.4510(c)(1) through (11)
(11) 40 CFR 63.4520(a)
(12) 40 CFR 63.4530(a), (b), (c), (d), (e), (f), and (g)
(13) 40 CFR 63.4531
(14) 40 CFR 63.4540
(15) 40 CFR 63.4541
(16) 40 CFR 63.4542
(17) 40 CFR 63.4550
(18) 40 CFR 63.4551
(19) 40 CFR 63.4552
(20) 40 CFR 63.4580
(21) 40 CFR 63.4581

The provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to this source, except when otherwise specified in 40 CFR 63, Subpart PPPP.

(f) The requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ)(326 IAC 20-82) are included in the permit, because the one (1) Cummins Onan natural gas-fired emergency generator is considered an existing (constructed before June 12, 2006) stationary reciprocating internal combustion engine at a major source of HAPs. The one (1) diesel fire pump is considered a limited use existing source. The one (1) diesel emergency generator, identified as EG2, is considered a new (constructed after January 18, 2008) stationary reciprocating internal combustion engines at a major source of HAPs.

The units subject to this rule include the following:

(1) Plant 1-850 (motorized vehicle assembly and tile floor setting):

(A) Emergency generators, as follows:

(i) One (1) Cummins Onan natural gas-fired emergency generator, with a maximum capacity of 60 kW, and 80 hp, with emissions uncontrolled, constructed on or before January 28, 2004, and exhausting to stack SV1-7.

(2) Plant 35-833E (fire pump southeast of Plant 2-35) contains:

(A) One (1) diesel fire pump located southeast of Plant 2, with a maximum capacity of 140 HP, constructed in 1998.

(3) Plant 831 (lamination):

(A) Emergency generators as follows:

(i) One (1) diesel emergency generator, identified as EG2, approved in 2017 for construction, with a maximum engine output of 480 horsepower, using no controls, and exhausting to stack EG2S.

These units are subject to the following portions of 40 CFR 63, Subpart ZZZZ:

(a) Cummins Onan natural gas-fired emergency generator and diesel fire pump:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585(a), (b)
(3) 40 CFR 63.6590(a)(1)(ii)
(4) 40 CFR 63.6595(a)(1), (c)
(5) 40 CFR 63.6602
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(1), (e)(2), (f)(1),(2)(i),(3), (h), (i), (j)
(8) 40 CFR 63.6640(a), (b), (f)(1), (2)(i), and (3)
(9) 40 CFR 63.6645(a)(1)
(10) 40 CFR 63.6650(f)
(11) 40 CFR 63.6655(a)(1), (a)(2), (a)(4), (d), (e)(1), (e)(2), (f)(1)
(12) 40 CFR 63.6660
(13) 40 CFR 63.6665
(14) 40 CFR 63.6670
(15) 40 CFR 63.6675
(16) Table 2c-(1), (6)
(17) Table 6, 7, 8 and 9

(b) Diesel emergency generator, identified as EG2:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(2)(ii)
(4) 40 CFR 63.6590(c)(6)
(5) 40 CFR 63.6595(a)(5) and (c)
(6) 40 CFR 63.6640(f)(1), (2)(i), and (3)
(7) 40 CFR 63.6665
(8) 40 CFR 63.6670
(9) 40 CFR 63.6675

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the source except as otherwise specified in 40 CFR 63, Subpart ZZZZ.

(g) The requirements of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63, Subpart DDDDD)(326 IAC 20-95) are not included in the permit for the natural gas-fired units since the units are not boilers or process heaters as defined at 40 CFR 63.7575.

(h) The requirements of the National Emission Standards for Hazardous Air Pollutants for Miscellaneous Coating Manufacturing (40 CFR 63, Subpart HHHHH)(326 IAC 20-88) are not included in the permit because the source does not manufacture coating.

(i) The requirements of the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities (40 CFR 63, Subpart CCCCCC) are not included in the permit for gasoline storage tank GT1 because the source is a major source of HAP emissions.

(j) There are no other National Emission Standards for Hazardous Air Pollutants under 40 CFR 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:

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Plant 1-850						
One (1) woodworking mill room (D1-01) - **PM**	bagfilter collector	326 IAC 6-3-2	<100	<100	N [2]	N
One (1) woodworking mill room (D1-01) – **PM10**	bagfilter collector	None	<100	<100	N [2]	N
One (1) woodworking mill room (D1-01) – **PM2.5**	bagfilter collector	None	<100	<100	N [2]	N
One (1) undercoating operation - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
One (1) undercoating operation – **PM10**	dry filters	None	<100	<100	N [1]	N
One (1) undercoating operation – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Plant 2-35						
Paint Line A: one (1) primer/ basecoat booth (SV2-27); one (1) clearcoat booth (SV2-28); one (1) clearcoat/bake booth (SV2-29) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line A: one (1) primer/ basecoat booth (SV2-27); one (1) clearcoat booth (SV2-28); one (1) clearcoat/bake booth (SV2-29) – **PM10**	dry filters	None	<100	<100	N [1]	N
Paint Line A: one (1) primer/ basecoat booth (SV2-27); one (1) clearcoat booth (SV2-28); one (1) clearcoat/bake booth (SV2-29) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Line A: two (2) coating booths (SV2-35 & SV2-36) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line A: two (2) coating booths (SV2-35 & SV2-36) – **PM10**	dry filters	None	<100	<100	N [1]	N
Paint Line A: two (2) coating booths (SV2-35 & SV2-36) – **PM2.5**	dry filters	None	<100	<100	N [1]	N

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Paint Line B: one (1) slideout paint and clear booth (SV2-20); one (1) seal and base booth (SV2-21); one (1) paint stripe booth (SV2-22) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line B: one (1) slideout paint and clear booth (SV2-20); one (1) seal and base booth (SV2-21); one (1) paint stripe booth (SV2-22) – **PM10**	dry filters	None	<100	<100	N [1]	N
Paint Line B: one (1) slideout paint and clear booth (SV2-20); one (1) seal and base booth (SV2-21); one (1) paint stripe booth (SV2-22) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Line B: one (1) prep and repair booth (SV2-23); one (1) clear and bake booth (SV2-24); one (1) sand and repair station (SV2-25); one (1) reclear and bake booth (SV2-26) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line B: one (1) prep and repair booth (SV2-23); one (1) clear and bake booth (SV2-24); one (1) sand and repair station (SV2-25); one (1) reclear and bake booth (SV2-26) – **PM10**	dry filters	None	<100	<100	N [1]	N
Paint Line B: one (1) prep and repair booth (SV2-23); one (1) clear and bake booth (SV2-24); one (1) sand and repair station (SV2-25); one (1) reclear and bake booth (SV2-26) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Line C: one (1) slideout paint and clear booth (SV2-13); one (1) seal and base booth (SV2-14); one (1) paint stripe booth (SV2-15) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line C: one (1) slideout paint and clear booth (SV2-13); one (1) seal and base booth (SV2-14); one (1) paint stripe booth (SV2-15) – **PM10**	dry filters	None	<100	<100	N [1]	N
Paint Line C: one (1) slideout paint and clear booth (SV2-13); one (1) seal and base booth (SV2-14); one (1) paint stripe booth (SV2-15) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Line C: one (1) prep and repair booth, (SV2-16); one (1) clear and bake booth (SV2-17); one (1) sand and repair station (SV2-18); one (1) reclear and bake booth (SV2-19) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line C: one (1) prep and repair booth, (SV2-16); one (1) clear and bake booth (SV2-17); one (1) sand and repair station (SV2-18); one (1) reclear and bake booth (SV2-19) – **PM10**	dry filters	None	<100	<100	N [1]	N

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Paint Line C: one (1) prep and repair booth, (SV2-16); one (1) clear and bake booth (SV2-17); one (1) sand and repair station (SV2-18); one (1) reclear and bake booth (SV2-19) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Line D: one (1) primer/ basecoat booth (SV2-7); one (1) repair and stripe booth (SV2-8) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line D: one (1) primer/ basecoat booth (SV2-7); one (1) repair and stripe booth (SV2-8) – **PM10**	dry filters	None	<100	<100	N [1]	N
Paint Line D: one (1) primer/ basecoat booth (SV2-7); one (1) repair and stripe booth (SV2-8) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Line D: one (1) slideout booth (SV2-9); one (1) repair and clear booth (SV2-10); one (1) sand and repair station (SV2-11); one (1) reclear booth (SV2-12) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line D: one (1) slideout booth (SV2-9); one (1) repair and clear booth (SV2-10); one (1) sand and repair station (SV2-11); one (1) reclear booth (SV2-12) – **PM10**	dry filters	None	<100	<100	N [1]	N
Paint Line D: one (1) slideout booth (SV2-9); one (1) repair and clear booth (SV2-10); one (1) sand and repair station (SV2-11); one (1) reclear booth (SV2-12) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Line E: one (1) primer/ basecoat booth (SV2-1); one (1) repair and stripe booth (SV2-2) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line E: one (1) primer/ basecoat booth (SV2-1); one (1) repair and stripe booth (SV2-2) – **PM10**	dry filters	None	<100	<100	N [1]	N
Paint Line E: one (1) primer/ basecoat booth (SV2-1); one (1) repair and stripe booth (SV2-2) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Line E: one (1) slideout booth (SV2-3); one (1) repair and clear booth (SV2-4); one (1) sand and repair station (SV2-5); one (1) reclear booth (SV2-6) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Paint Line E: one (1) slideout booth (SV2-3); one (1) repair and clear booth (SV2-4); one (1) sand and repair station (SV2-5); one (1) reclear booth (SV2-6) – **PM10**	dry filters	None	<100	<100	N [1]	N

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Paint Line E: one (1) slideout booth (SV2-3); one (1) repair and clear booth (SV2-4); one (1) sand and repair station (SV2-5); one (1) reclear booth (SV2-6) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Repair Line: three (3) paint repair booths (SV2-30, SV2-31, & SV2-32) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Repair Line: three (3) paint repair booths (SV2-30, SV2-31, & SV2-32) – **PM10**	dry filters	None	<100	<100	N [1]	N
Repair Line: three (3) paint repair booths (SV2-30, SV2-31, & SV2-32) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Repair Line: two (2) paint repair booths (SV2-33 & SV2-34) - **PM**	dry filters	326 IAC 6-3-2	<100	<100	N [1]	N
Repair Line: two (2) paint repair booths (SV2-33 & SV2-34) – **PM10**	dry filters	None	<100	<100	N [1]	N
Repair Line: two (2) paint repair booths (SV2-33 & SV2-34) – **PM2.5**	dry filters	None	<100	<100	N [1]	N
Paint Prep Areas: Partial (paint line A) and Full (paint lines B through E)—**PM**	dry filters	326 IAC 6-3-2	>100	<100	Y	N
Paint Prep Areas: Partial (paint line A) and Full (paint lines B through E)—**PM10**	dry filters	None	>100	<100	N [1]	N
Paint Prep Areas: Partial (paint line A) and Full (paint lines B through E)—**PM2.5**	dry filters	None	>100	<100	N [1]	N
Plant 450						
One (1) woodworking operation (P450WW) - **PM**	dust collector	326 IAC 6-3-2	<100	<100	N [2]	N
One (1) woodworking operation (P450WW) – **PM10**	dust collector	None	<100	<100	N [2]	N
One (1) woodworking operation (P450WW) – **PM2.5**	dust collector	None	<100	<100	N [2]	N
Plant 450 Woodworking Operations (P450WW2 - P450WW6) / **PM, PM10,** and **PM2.5**	dust collector	--	--	--	N [1]	--
Plant 831 Woodworking Operations (P831WW1 - P831WW5) / **PM, PM10**, and **PM2.5**	dust collector	--	--	--	N [1]	--
Plant 36-836 Miscellaneous Woodworking Operation (MC-P836) / **PM, PM10**, and **PM2.5**	dust collector	--	--	--	N [1]	--
Plant 36-836 Woodworking Operation (P836WW1) / **PM, PM10**, and **PM2.5**	dust collector	--	--	--	N [1]	--
Plant 1-850 Miscellaneous Woodworking Operation (MC-P850) / **PM, PM10**, and **PM2.5**	dust collector	--	--	--	N [1]	--

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Plant 1-850 Woodworking Operations (P850WW2 - P850WW14) / **PM**, **PM10**, and **PM2.5**	dust collector	--	--	--	N [1]	--

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] CAM does not apply for PM, PM10, PM2.5 because the uncontrolled PTE of PM, PM10, PM2.5 is less than the major source threshold.

N [2] Pursuant to 40 CFR Part 64.1, the control devices are considered to be inherent process equipment. Therefore, based on the evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable.

Controls: BH = Baghouse, C = Cyclone, DC = Dust Collection System, RTO = Regenerative or Recuperative Thermal Oxidizer, WS = Wet Scrubber, ESP = Electrostatic Preciptator

Emission units without air pollution controls are not subject to CAM. Therefore, they are not listed.

Inherent Process Equipment (Woodworking)
Pursuant to 40 CFR Part 64.1, the definition of inherent process equipment is "equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of this part, inherent process equipment is not considered subject to CAM."

The woodworking baghouse controls are determined to be necessary for the normal and proper operation of the woodworking operations *(see the "Integral Part of the Process" Determination" section above for more detail)*. Therefore, the woodworking baghouses meet the criteria for inherent to the process for the purpose of determining CAM applicability, and are not considered control devices. Therefore, the requirements of 40 CFR Part 64.2, CAM, do not apply to the woodworking operations.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are applicable to the two (2) paint prep areas located at Plant 2-35 for PM. 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) and 326 IAC 2-3 (Emission Offset)
PSD and Emission Offset applicability is discussed under the Potential to Emit After Issuance section of this document.

PSD Minor Source Limits

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:

Pursuant to CP 039-7335-00017 (issued July 24, 1997), SSM 039-12758-00017 (issued May 15, 2001), and as revised by T039-7559-00017 (issued June 21, 2004) and T039-26937-00017 (issued August 19, 2010), the total VOC emissions from the emission units listed in the following table shall be restricted such that the VOC emissions shall not exceed 240.19 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

Plant	Emission Units (June 21, 2004)
Emission Units and Pollution Control Equipment Summary	
1-850	D1-01
	SV1-6
	D1-04
20-820	EU-20B
26-826	Four (4) inspection bays
	GV26-1 through GV26-4
29-829	Diesel service center Thirteen (13) inspection bays
	GV29-1 through GV29-4
Insignificant Activities	
1-850	Fiberglass cap windshield GV31-2
831	FCL1 (formerly GV1-1)
	FCL2
	FCL3 (formerly GV32-1)
20-820	25 Weld Stations GV20-2 through GV20-10
22-822	6 Weld Stations
26-826	White Glove Inspection GV26-1 through GV26-4
32-7/8	4 Weld Stations
Combustion Facilities	
1-850	Emergency Generator SV1-7
35-833E	Fire Pump

Compliance with this limit, in combination with the potential VOC emissions from all listed combustion and welding facilities at the source on June 21, 2004, shall limit the VOC emissions to less than 250 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the above listed emissions units.

2004 Modification

Pursuant to PSD/SSM 039-15620-00017, issued on December 11, 2002; 326 IAC 2-2 (PSD); 326 IAC 8-1-6 (BACT); and as revised by T039-7559-00017, issued on June 21, 2004, PSD BACT for VOC have been determined to be the following:

(a) All facilities located at Plant 2-35 (previously identified as Plant 2) on June 21, 2004, must comply with the following requirements:

(1) Lacquer thinners and preparation cleaners and solvents used on vehicle exteriors will be hand-wiped and contain a maximum 6.5 pounds VOC per gallon of coating as applied.

(2) Except as provided below, primers will be applied using high volume-low pressure (HVLP) spray equipment, or the equivalent, and contain a maximum of 3.5 pounds VOC per gallon of coating as applied.

(3) Except as provided below, base coats will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 6.5 pounds VOC per gallon of coating as applied.

(4) Except as provided below, clear coats will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 3.5 pounds VOC per gallon of coating as applied.

(5) Except as provided below, sealers will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 3.5 pounds VOC per gallon of coating as applied.

(6) As an alternative to complying with the individual VOC content limitations for base coats and clear coats, compliance may be determined by averaging the emissions from base coat and clear coat operations across affected lines. The average VOC content for the base coat/clear coat system shall be limited to less than or equal to 4.5 pounds VOC per gallon of coating as applied. This limitation is based on a ratio of two parts clear coat to one part base coat. Compliance will be demonstrated monthly based on the actual VOC content as applied of each coating and actual usage of base coats and clear coats during the month.

(7) Good housekeeping practices will be employed to minimize leaks, spills, and evaporative losses. These include: sealing lids on all containers not in use or in storage, the purging of guns and lines into approved containers, maintaining an organized spill response and clean-up operation, performing routine maintenance on spray equipment and pumps to prevent drips and seal leaks, the use of solvent recovery systems to recover reusable solvents for on-site or off-site recycling, and using aqueous, exempt solvents or citric cleaners where effective and practical.

(8) All coating materials, including primers, base coats, and clear coats, used in the repair booths will be applied with air-atomized spray equipment, or the equivalent.

(9) When necessary, vehicle exteriors will be hand-wiped with cleaning solvent prior to painting.

(10) Collected solvents will be recycled on-site and off-site to recover reusable solvents and minimize waste.

(11) Vehicles will be undercoated with a waterborne-low VOC coating.

(b) The surface coating operations in Partial Paint Line A and Full Paint Lines B through E shall use, in aggregate, less than 539 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period with compliance determined at the end of each month.

The VOC usage limit, in conjunction with the usage of low VOC/high solids coatings and high transfer application methods listed in (1) through (11) above and the VOC emissions from the insignificant natural gas fired air-make-up units, has been incorporated to limit the potential to emit VOC from Plant 2-35 (previously Identified as Plant 2) to less than 540.4 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these requirements and limits will satisfy the requirements of 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 (BACT).

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).

The operation of woodworking, routing, and touch-up painting emission units will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
This source is subject to the requirements of 326 IAC 2-6 (Emission Reporting), since it has the potential to emit and has the potential to emit VOC equal to or greater than two hundred fifty (250) tons per year. Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit annually, by July 1, an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Elkhart 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 6.8 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Elkhart County) is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.

State Rule Applicability – Individual Facilities

State rule applicability has been reviewed as follows:

326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)
(a) Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received permit to construct after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (Pt) shall be limited by the following equation:

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

Where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).

Q = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation.

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 MMBtu/hr, Pt shall not exceed 0.6 lb/MMBtu.

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility	Construction Date (Removal Date)	Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
Bake Oven (SV2-37)	1997	4.0	12.0	0.57	0.57	0.002
Air Make-Up	1997	2 * 4.0	12.0	0.57	0.57	0.002
Air Make-Up (P820AM1)	2017	0.028	19.4	0.50	0.50	0.002
Thermo-Cycler (P820TC1)	2017	0.58	19.4	0.50	0.50	0.002
Space Heater (OH1)	2017	0.12	19.4	0.50	0.50	0.002
Thermo-Cyclers (TC1 & TC2)	2017	2 * 0.58	19.4	0.50	0.50	0.002
Air Make-Up (AM1)	2017	0.97	19.4	0.50	0.50	0.002
Thermo-Cyclers (P831TC1-P831TC5)	2017	5 * 0.72	19.4	0.50	0.50	0.002
Thermo-Cycler (P831TC6)	2017	0.58	19.4	0.50	0.50	0.002
Furnace (P831SH1)	2017	0.075	19.4	0.50	0.50	0.002
Furnaces (P831SH2 & P831SH3)	2017	2 * 0.09	19.4	0.50	0.50	0.002
Furnace (P831SH4)	2017	0.11	19.4	0.50	0.50	0.002

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility	Construction Date (Removal Date)	Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
Where: Q = Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed. Note: Emission units shown in strikethrough were subsequently removed from the source. The effect of removing these units on "Q" is shown in the year the boiler was removed..						

(b) Pursuant to 326 IAC 6-2-1, the requirements of 326 IAC 6-2 are not applicable to the one (1) Cummins Onan natural gas-fired emergency generator and the one (1) diesel-fired emergency generator (EG2) because they are not considered combustion for indirect heating as defined in 326 IAC 1-2-19.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting)

Process Description	Emission Unit	326 IAC 6-3-2
sidewall adhesive application process	SV1-6	Exempt from 326 IAC 6-3-2
three (3) manual assembly lines applying sealants, caulks, and cleaners	Assembly Lines 1-Red, 2-Blue, and 3-White	Exempt from 326 IAC 6-3-2
undercoating operation for coating metal chassis		Exempt from 326 IAC 6-3-2
woodworking mill room	D1-01	Subject to 326 IAC 6-3-2(e)
emergency generator	Cummins Onan natural gas-fired emergency generator	Exempt from 326 IAC 6-3-2

(1) IDEM, OAQ has determined that application of the material listed below at this source, when using non-atomizing HVLP spray guns, does not have the potential to emit particulate emissions. This adhesive is applied as a sticky, stretchy, stringy, web-like material. Therefore, this adhesive operation does not meet the definition of “surface coating” under 326 IAC 6-3-1.5 and is not subject to the requirements of 326 IAC 6-3-2.

- ADHESIVE PRO-BOND
- ADHESIVE SPRAY STAPUT
- ADHESIVE SUPER TAK HIGH PERF
- ADHESIVE STICK-UP
- ADHESIVE RED WHISPER SPRAY
- FOAM SEAL BLACK RESIN "A"
- FOAM SEAL BLACK RESIN "B"
- ENERFOAM NBS

(2) Pursuant to 326 IAC 6-3-1(b)(5), (6), (7), (8), SV1-6, the three (3) manual assembly lines (Assembly Lines 1-Red, 2-Blue, and 3-White), and the one (1) undercoating operation for coating metal chassis, are exempt from 326 IAC 6-3 because coatings are applied by hand using various hand tools such as brushes.

(3) Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the one (1) woodworking mill room (D1-01), since it is a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c).

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the one (1) woodworking mill room (D1-01), shall not exceed 5.69 pounds per hour when operating at a process weight rate of 1.63 tons per hour. The pound per hour limitation was calculated with the following equation:

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

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

Summary of Process Weight Rate Limits			
Process / Emission Unit	**P (ton/hr)**	**E (lb/hr)**	**Equation Used**
D1-01	1.63	5.69	(a)

Based on calculations, the bagfilter collector is not needed to comply with this limit.

(4) Liquid and gaseous fuels and combustion air are excluded from the definition of process weight as defined in 326 IAC 1-2-59(a). Therefore, the one (1) Cummins Onan natural gas-fired emergency generator is not subject to the requirements of 326 IAC 6-3-2.

(5) Pursuant to 326 IAC 6-3-1(b)(14), Plant 850 miscellaneous woodworking operation (MC-P850) and Plant 850 woodworking operations (P850WW2 through P850WW14) are not subject to the requirements of 326 IAC 6-3, because these are manufacturing processes with uncontrolled potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour, each.

(6) Pursuant to 326 IAC 6-3-1(b)(15), the one (1) touch-up painting operation, identified as P850TP, is not subject to the requirements of 326 IAC 6-3, because it is a surface coating manufacturing process that uses less than five (5) gallons per day.

(b) Plant 2-35 (final paint plant)

Process Description	Emission Unit	326 IAC 6-3-2
full paint line - paint line A	SV2-27, SV2-28, SV2-29, SV2-35, SV2-35	Subject to 326 IAC 6-3-2(d)
full paint line - paint line B	SV2-20, SV2-21, SV2-22, SV2-23, SV2-24, SV2-25, SV2-26	Subject to 326 IAC 6-3-2(d)
full paint line - paint line C	SV2-13, SV2-14, SV2-15, SV2-16, SV2-17, SV2-18, SV2-19	Subject to 326 IAC 6-3-2(d)
full paint line - paint line D	SV2-7, SV2-8, SV2-9, SV2-10, SV2-11, SV2-12	Subject to 326 IAC 6-3-2(d)
full paint line - paint line E	SV2-1, SV2-2, SV2-3, SV2-4, SV2-5, and SV2-6	Subject to 326 IAC 6-3-2(d)
repair line	SV2-30, SV2-31,SV2-32, SV2-33, SV2-34	Subject to 326 IAC 6-3-2(d)
two (2) paint prep areas (insignificant activity)	Partial (Paint Line A) full (Paint line A), Full (Paint Lines B through E)	Subject to 326 IAC 6-3-2(e)
Paint storage and mixing area (insignificant activity)		Exempt pursuant to 326 IAC 6-3-2(b)(15)
final inspection area (insignificant activity)		

(1) Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2(d) are applicable to Paint Line A, Paint Line B, Paint Line C, Paint Line D, Paint Line E, and the Repair Line since they have the potential to use more than five (5) gallons of coating per day. Pursuant to 326 IAC 6-3-2(d), particulate from the units above shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the source shall operate the control device in accordance with manufacturer's specifications.

(2) Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the two (2) paint prep areas, identified as Partial (Paint Line A) and Full (Paint Lines B through E), since they are a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c).

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the full (paint line A) paint prep area (insignificant activity) and the full (paint lines B through E) paint prep area (insignificant activity), shall not exceed 51.28 pounds per hour when operating at a process weight rate of 100.00 tons per hour. The pound per hour limitation was calculated with the following equation:

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

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

Summary of Process Weight Rate Limits			
Process / Emission Unit	**P (ton/hr)**	**E (lb/hr)**	**Equation Used**
full (paint line A) paint prep area (insignificant activity)	100.00	51.28	(b)
full (paint lines B through E) paint prep area (insignificant activity)	100.00	51.28	(b)

Based on calculations, the dry filter is not needed to comply with this limit.

(3) Pursuant to 326 IAC 6-3-1(b)(15), surface coating manufacturing processes that use less than five (5) gallons per day are exempt from the requirements of 326 IAC 6-3-2. Therefore, the paint storage and mixing area and the final inspection area (insignificant activities) are not subject to the requirements of 326 IAC 6-3-2.

(c) Plant 20-820 (welding and sidewall lamination)

Process Description	Emission Unit	326 IAC 6-3-2
adhesive applicator		Exempt from 326 IAC 6-3-2
sidewall welding operation	EU20-B	Exempt pursuant to 326 IAC 6-3-2(b)(9)
welding operations (insignificant activity)		Exempt pursuant to 326 IAC 6-3-2(b)(9)
Natural gas combustion units		Exempt from 326 IAC 6-3-2

(1) Pursuant to 326 IAC 6-3-1(b)(5), (6), (7), (8), coating applied using hand application methods, such as roll, flow and wipe, are exempt from 326 IAC 6-3. Most of the coatings used in the adhesive applicator are applied using a roll, wipe and flow coating method. Lubricant Spray Silicone MC-43 is applied using aerosol. This would cause the unit to be subject to 326 IAC 6-3, but pursuant to 326 IAC 6-3-1(b)(15) any surface coating not exempt by 326 IAC 6-3-1(b)(5), (6), (7), or (8) that use less the 5 gal/day. The source uses 1.92 gallons of MC-43 per day. Therefore, the adhesive applicator is exempt from 326 IAC 6-3.

(2) Pursuant to 326 IAC 6-3-1(b)(9), welding operations that consume less than 625 pounds of rod or wire per day are exempt from 326 IAC 6-3-2. Therefore, the sidewall welding operation and the welding operations (insignificant activity) are not subject to the requirements of 326 IAC 6-3-2.

(3) Liquid and gaseous fuels and combustion air are excluded from the definition of process weight as defined in 326 IAC 1-2-59(a). Therefore, the insignificant natural gas-fired units are not subject to the requirements of 326 IAC 6-3-2.

(d) Plant 22-822 (welding operations)

(1) Pursuant to 326 IAC 6-3-1(b)(9), welding operations that consume less than 625 pounds of rod or wire per day are exempt from 326 IAC 6-3-2. Therefore, the insignificant welding operation is not subject to the requirements of 326 IAC 6-3-2.

(e) Plant 26-826 (white glove inspection area and dispatch)

Process Description	Emission Unit	326 IAC 6-3-2
four (4) inspection bays		Exempt from 326 IAC 6-3-2
white glove inspection (insignificant activity)		Exempt from 326 IAC 6-3-2

(1) IDEM, OAQ has determined that application of the material listed below in inspection bays and white glove inspection at this source, when using non-atomizing HVLP spray guns, does not have the potential to emit particulate emissions. This adhesive is applied as a sticky, stretchy, stringy, web-like material. Therefore, this adhesive operation does not meet the definition of “surface coating” under 326 IAC 6-3-1.5 and is not subject to the requirements of 326 IAC 6-3-2.

- RESIN/SEALANT COMP "B"/FOAMSEAL
- SEALANT COMP "A"/FOAMSEAL BLUE
- SEALANT FILLER FOAM SPRAY/DASH
- UNDERCOATING AQUASEAL EMULSION
- 404335 RUB. UNDERCOAT SPRAY (PITT PEN)

(2) Pursuant to 326 IAC 6-3-1(b)(5), (6), (7), (8), coating applied using hand application methods, such as roll, tube and wipe, are exempt from 326 IAC 6-3. Most of the coatings used in the adhesive applicator are applied using a roll, wipe and flow coating method. The material listed below in the inspection bays and white glove inspection at this source is applied using aerosol, spray. This would cause the unit to be subject to 326 IAC 6-3, but pursuant to 326 IAC 6-3-1(b)(15) any surface coating not exempt by 326 IAC 6-3-1(b)(5), (6), (7), or (8) that use less the 5 gal/day. The source uses less than 3.84 gal/day. Therefore, the adhesive applicator is exempt from 326 IAC 6-3.

- SEALANT SILICONE BLACK/WHITE
- CLOPHANE WINDOW CLEANER

(f) Plant 29-829 (diesel service center)

Process Description	Emission Unit	326 IAC 6-3-2
thirteen (13) service bays		Exempt from 326 IAC 6-3-2

(1) IDEM, OAQ has determined that application of the material listed below in the thirteen (13) service bays at this source, when using non-atomizing HVLP spray guns, does not have the potential to emit particulate emissions. This adhesive is applied as a sticky,

stretchy, stringy, web-like material. Therefore, this adhesive operation does not meet the definition of “surface coating” under 326 IAC 6-3-1.5 and is not subject to the requirements of 326 IAC 6-3-2.

- ADH SPRAY STAPUT
- VULTRAFOAM 16-L-716 PART A
- VULTRAFOAM 16-L-716 PART B
- SEALANT FILLER FOAM SPRAY

(2) Pursuant to 326 IAC 6-3-2(b)(5), (6), (7), (8), coating applied using hand application methods, such as roll, flow and wipe, are exempt from 326 IAC 6-3. Most of the coatings used in the thirteen (13) service bays are applied using a brush, wipe and flow coating method. A few coatings are applied using spray and aerosol. These would cause the unit to be subject to 326 IAC 6-3, but pursuant to 326 IAC 6-3-2(b)(15) any surface coating not exempt by 326 IAC 6-3-2(b)(5), (6), (7), or (8) that use less the 5 gal/day. The sources uses 2.22 gallons per day. Therefore, the thirteen (13) service bays are exempt from 326 IAC 6-3.

- PAINT SPRAY BLACK BROMA
- PRIMER FOURSEAL; 48-9001 and 7865
- LUBRICANT SPRAY SILICONE
- CLEANER SPRAYON GLASS
- SEALANT SILICONE WHITE
- SEALANT SILICONE BLACK

(g) Plant 32-7/8 (welding and warehouse)

(1) Pursuant to 326 IAC 6-3-1(b)(9), welding operations that consume less than 625 pounds of rod or wire per day are exempt from 326 IAC 6-3-2. Therefore, the insignificant welding operation is not subject to the requirements of 326 IAC 6-3-2.

(h) Plant 35-833E (fire pump southeast of Plant 2-35)

(1) Liquid and gaseous fuels and combustion air are excluded from the definition of process weight as defined in 326 IAC 1-2-59(a). Therefore, the one (1) diesel fire pump is not subject to the requirements of 326 IAC 6-3-2.

(i) Plant 36-836 (welding operations)

(1) Pursuant to 326 IAC 6-3-1(b)(9), welding operations that consume less than 625 pounds of rod or wire per day are exempt from 326 IAC 6-3-2. Therefore, the insignificant welding operation is not subject to the requirements of 326 IAC 6-3-2.

(2) Pursuant to 326 IAC 6-3-1(b)(14), Plant 836 miscellaneous woodworking operation (P836WW1) is not subject to the requirements of 326 IAC 6-3, because these are manufacturing processes with uncontrolled potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour, each.

(j) Plant 56-5 (warehouse and welding)

(1) Pursuant to 326 IAC 6-3-1(b)(9), welding operations that consume less than 625 pounds of rod or wire per day are exempt from 326 IAC 6-3-2. Therefore, the insignificant welding operation is not subject to the requirements of 326 IAC 6-3-2.

(k) Plant 450 (motor home assembly)

Process Description	Emission Unit	326 IAC 6-3-2
woodworking operation	P450WW	Exempt from 326 IAC 6-3-2
motor home assembly line	P450AO	Exempt from 326 IAC 6-3-2
miscellaneous RV manufacturing processes	P450MO	Exempt from 326 IAC 6-3-2
fuel dispensing	gasoline storage tank (GT1), diesel fuel storage tank (DT1)	Exempt from 326 IAC 6-3-2

(1) Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential emissions less than 0.551 pound per hour are exempt from the requirements of 326 IAC 6-3-2. Therefore, the one (1) woodworking operation (P450WW) is not subject to the requirements of 326 IAC 6-3-2 since it has potential emissions less than 0.551 pound per hour after consideration of the integral control device However, since this facility has potential emissions greater than 0.551 pound per hour prior to consideration of the integral control device(s), in order to assure the facility is not subject to the requirements of 326 IAC 6-3-2, the integral control device(s) shall be in operation and control emissions from the associated facility at all times the facility is in operation.

(2) Pursuant to 326 IAC 6-3-1(b)(5), (6), (7), (8), coating applied using hand application methods, such as roll, tube and wipe, are exempt from 326 IAC 6-3. Most of the coatings used in the one (1) motor home assembly line, identified as P450AO, are applied using a roll, wipe and flow coating method. The material listed below in the motor home assembly line at this source is applied using aerosol, spray. This would cause the unit to be subject to 326 IAC 6-3, but pursuant to 326 IAC 6-3-1(b)(15) any surface coating not exempt by 326 IAC 6-3-1(b)(5), (6), (7), or (8) that use less the 5 gal/day. The source uses less than 2.88 gal/day. Therefore, the one (1) motor home assembly line is exempt from 326 IAC 6-3.

(3) Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential emissions less than 0.551 pound per hour are exempt from the requirements of 326 IAC 6-3-2. Therefore, the one (1) set of miscellaneous RV manufacturing processes are not subject to the requirements of 326 IAC 6-3-2.

(4) Liquid and gaseous fuels and combustion air are excluded from the definition of process weight as defined in 326 IAC 1-2-59(a). Therefore, the natural gas-fired units are not subject to the requirements of 326 IAC 6-3-2.

(5) Pursuant to 326 IAC 6-3-1(b)(14), the Plant 450 woodworking operations (P450WW2 through P450WW6) is not subject to the requirements of 326 IAC 6-3, because these are manufacturing processes with uncontrolled potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour, each.

(l) Plant 831 (lamination)

(1) Liquid and gaseous fuels and combustion air are excluded from the definition of process weight as defined in 326 IAC 1-2-59(a). Therefore, the natural gas-fired units and the diesel emergency generator (EG2) are not subject to the requirements of 326 IAC 6-3-2.

(2) Pursuant to 326 IAC 6-3-1(b)(14), Plant 831 woodworking operations (P831WW1 through P831WW5) are not subject to the requirements of 326 IAC 6-3, because these are manufacturing processes with uncontrolled potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour, each.

(3) Pursuant to 326 IAC 6-3-1(b)(14), the three (3) sidewall routers, identified as P831SWR1, P831SWR2, and P831SWR3, the one (1) roof routers, identified as P831RR1, and the

two (2) floor routers, identified as P831FR1 and P831FR2, are not subject to the requirements of 326 IAC 6-3, because these are manufacturing processes with uncontrolled potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour, each.

(m) Plant 854 (gasoline service center)

one (1) gasoline-engine motor home service operation	Exempt from 326 IAC 6-3-2

(1) IDEM, OAQ has determined that application of the material listed below in the one (1) gasoline-engine motor home service operation at this source, when using non-atomizing HVLP spray guns, does not have the potential to emit particulate emissions. This adhesive is applied as a sticky, stretchy, stringy, web-like material. Therefore, this adhesive operation does not meet the definition of “surface coating” under 326 IAC 6-3-1.5 and is not subject to the requirements of 326 IAC 6-3-2.

- ADH SPRAY STAPUT
- VULTRAFOAM 16-L-716 PART A
- VULTRAFOAM 16-L-716 PART B
- SEALANT FILLER FOAM SPRAY

(2) Pursuant to 326 IAC 6-3-2(b)(5), (6), (7), (8), coating applied using hand application methods, such as roll, flow and wipe, are exempt from 326 IAC 6-3. Most of the coatings used one (1) gasoline-engine motor home service operation are applied using a brush, wipe and flow coating method. A few coatings are applied using spray and aerosol. These would cause the unit to be subject to 326 IAC 6-3, but pursuant to 326 IAC 6-3-2(b)(15) any surface coating not exempt by 326 IAC 6-3-2(b)(5), (6), (7), or (8) that use less the 5 gal/day. The sources uses 2.11 gallons per day. Therefore, one (1) gasoline-engine motor home service operation is exempt from 326 IAC 6-3.

- PAINT SPRAY BLACK BROMA
- PRIMER FOURSEAL; 48-9001 and 7865
- LUBRICANT SPRAY SILICONE
- CLEANER SPRAYON GLASS
- SEALANT SILICONE WHITE
- SEALANT SILICONE BLACK

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Emission units that are constructed after January 1, 1980, and have unlimited VOC potential emissions equal to or greater than twenty-five (25) tons per year,and are not regulated by other rules in 326 IAC 8, are subject to 326 IAC 8-1-6.

(a) There are a number of units at the source that coat more than one type of substrate. Some substrates, such as metal and wood, are regulated under a different Article 8 rule, but there may be times when the units are coating substrates not covered under any Article 8 rules. When this happens, 326 IAC 8-1-6 would apply. However, none of these units have the potential to emit more than 25 tons of VOC per year when coating any substrate not covered under an Article 8 rule. Therefore, the following units are not subject to 326 IAC 8-1-6.

Plant	Emission Units	Process Description
1-850	Fiberglass cap windshield setting operations and repairs	
	SV1-6	one (1) sidewall adhesive application process (uses only Adhesive Hot Melt Pur-Fect Lok & Morad Water Reactive Urethane materials)
20-820	adhesive applicator	
26-826	four (4) inspection bays	
	white glove inspection	
29-829	thirteen (13) diesel-engine motor home service bays	
450	motor home assembly line	
831	FCL1-FCL9	flow coat lamination machines
854	one (1) gasoline-engine motor home service operation	

(b) The following units did have to potential to emit of greater than 25 tons per year when installed. 326 IAC 8-1-6 is "once-in-always-in" so the units remain subject to the requirements of 326 IAC 8-1-6 (BACT), even if the potential to emit VOC is currently less than 25 tons per year.

(i) Pursuant to PSD/SSM 039-15620-00017, issued on December 11, 2002; 326 IAC 2-2-3 (PSD BACT); 326 IAC 8-1-6 (BACT); and as revised by T039-7559-00017, issued on June 21, 2004, the following emissions units are subject to 326 IAC 8-1-6 and PSD BACT for VOC.

T039-7559-00017 Plant 2-35 (previously Plant 2) Emission Units (June 21, 2004)
SV2-27
SV2-28
SV2-29
SV2-20
SV2-21
SV2-22
SV2-23
SV2-24
SV2-25
SV2-26
SV2-13
SV2-14
SV2-15
SV2-16
SV2-17
SV2-18
SV2-19
SV2-7
SV2-8
SV2-9
SV2-10
SV2-11
SV2-12
SV2-1
SV2-2
SV2-3
SV2-4
SV2-5
SV2-6
SV2-30
SV2-31
SV2-32
SV2-33
SV2-34
SV2-35
SV2-36

T039-7559-00017 Plant 2-35 (previously Plant 2) Emission Units (June 21, 2004)
SV2-37
Undercoating operation (now in plant 1-850)
Insignificant Activities:
Paint prep
Paint storage and mixing
Final inspection
Adhesive Applicator

Pursuant to 326 IAC 2-2-3 (PSD BACT) and 326 IAC 8-1-6 (BACT), BACT for the above units has been determined to be the following:

(1) Lacquer thinners and preparation cleaners and solvents used on vehicle exteriors will be hand-wiped and contain a maximum 6.5 pounds VOC per gallon of coating as applied.

(2) Except as provided below, primers will be applied using high volume-low pressure (HVLP) spray equipment, or the equivalent, and contain a maximum of 3.5 pounds VOC per gallon of coating as applied.

(3) Except as provided below, base coats will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 6.5 pounds VOC per gallon of coating as applied.

(4) Except as provided below, clear coats will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 3.5 pounds VOC per gallon of coating as applied.

(5) Except as provided below, sealers will be applied using HVLP spray equipment, or the equivalent, and contain a maximum VOC content of 3.5 pounds VOC per gallon of coating as applied.

(6) As an alternative to complying with the individual VOC content limitations for base coats and clear coats, compliance may be determined by averaging the emissions from base coat and clear coat operations across affected lines. The average VOC content for the base coat/clear coat system shall be limited to less than or equal to 4.5 pounds VOC per gallon of coating as applied. This limitation is based on a ratio of two parts clear coat to one part base coat. Compliance will be demonstrated monthly based on the actual VOC content as applied of each coating and actual usage of base coats and clear coats during the month.

(7) Good housekeeping practices will be employed to minimize leaks, spills, and evaporative losses. These include: sealing lids on all containers not in use or in storage, the purging of guns and lines into approved containers, maintaining an organized spill response and clean-up operation, performing routine maintenance on spray equipment and pumps to prevent drips and seal leaks, the use of solvent recovery systems to recover reusable solvents for on-site or off-site recycling, and using aqueous, exempt solvents or citric cleaners where effective and practical.

(8) All coating materials, including primers, base coats, and clear coats, used in the repair booths will be applied with air-atomized spray equipment, or the equivalent.

(9) When necessary, vehicle exteriors will be hand-wiped with cleaning solvent prior to painting.

(10) Collected solvents will be recycled on-site and off-site to recover reusable solvents and minimize waste.

(11) Vehicles will be undercoated with a waterborne-low VOC coating.

(ii) The surface coating operations in Partial Paint Line A and Full Paint Lines B through E shall use, in aggregate, less than 539 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period with compliance determined at the end of each month.

The VOC usage limit, in conjunction with the usage of low VOC/high solids coatings and high transfer application methods listed in (1) through (11) above and the VOC emissions from the insignificant natural gas fired air-make-up units, has been incorporated to limit the potential to emit VOC from Plant 2-35 (previously Identified as Plant 2) to less than 540.4 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(c) The manual assembly lines (D1-04) was constructed after January 1, 1980, and its unlimited VOC potential emissions are equal to or greater than twenty-five (25) tons per year. In order to render 326 IAC 8-1-6 not applicable, the source must limit the potential to emit VOC from the manual assembly line (D1-04) to less than twenty-five (25) tons per twelve (12) consecutive month period each when coating substrates not otherwise regulated under Article 8.

In order to render the requirements of 326 IAC 8-1-6 not applicable, Permittee shall comply with the following when coating substrates not otherwise regulated under Article 8:

(1) The total VOC input, including adhesives, coatings, dilution solvents, and cleaning solvents, to each of the three (3) manual assembly lines (D1-04) shall be less than twenty-five (25) tons, each, per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits will render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to the three (3) manual assembly lines (D1-04).

(d) Even though, the one (1) touch-up painting operation, identified as P850TP, was constructed after January 1, 1980, it is not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions are less than twenty-five (25) tons per year.

326 IAC 8-2-9 (Miscellaneous metal and plastic parts coating operations)
Various emission units at the source are subject to 326 IAC 8-2-9 because the units coat metal and/or plastic parts or products under the Standard Industrial Classification Code #37. Pursuant to 326 IAC 8-2-1(a)(2) and 326 IAC 8-2-1(a)(4) and 326 IAC 8-2-9, this rule applies to facilities constructed after November 1, 1980 located in any county and with potential VOC emissions of greater than twenty-five (25) tons per year, or facilities constructed after July 1, 1990 located in any county and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls. Any unit constructed before 1980 is not subject to 326 IAC 8-2-9. Emission units possibly subject to 326 IAC 8-2-9 are located in the following plants:

Plant	Emission Units	Year Constructed	Type of Substrates Coated	VOC PTE (TPY)	326 IAC 8-2-9 Applicable?
Plant 1-850 (motorized vehicle assembly and tile floor setting)	Sidewall adhesive application process (SV1-6)	1997	metal	< 15	N
	Manual assembly lines (D1-04)	1997	metal	> 15	Y
	Undercoating operation for coating metal chassis	1998	metal	< 15	N
	Fiberglass end cap setting (Insig.)	not available	plastic/glass	< 15	N

Plant	Emission Units	Year Constructed	Type of Substrates Coated	VOC PTE (TPY)	326 IAC 8-2-9 Applicable?
	Touch-up Painting Operation (P850TP)	2023	various	<15	N
Plant 2-35 (final paint plant)	Paint lines (A-E) and Repair booths	after 1996	metal/various	> 15	Y
	Paint prep areas (Insig.)	1997	metal/various	< 15	N
	Paint storage and mixing area (Insig.)	1997	metal/various	< 15	N
	Final inspection area (Insig.)	1998	metal/various	< 15	N
Plant 20-820 (welding and sidewall lamination)	Adhesive applicator	1980	metal	< 100	N
Plant 26-826 (white glove inspection area and dispatch)	Inspection bays	1981	metal/plastic	> 15	Y
Plant 29-829 (diesel service center)	diesel-engine motor home service bays	1989	metal/plastic	< 25	N
Plant 450 (motor home assembly)	Motor home assembly line	2012	metals/various	> 15	Y
Plant 831 (lamination)	Flow coat lamination machines (FCL1-FCL9) (Insig.)	after 2010	wood panels	< 15	N
Plant 854 (gasoline service center)	Gasoline-engine motor home service operation	2017	metals	> 15	Y

(a) Plant 1-850 (motorized vehicle assembly and tile floor setting)

(1) Three (3) manual assembly lines:

(i) Pursuant to 326 IAC 8-2-1(a) and 326 IAC 8-2-9(a), three (3) manual assembly lines are subject to the requirements of 326 IAC 8-2-9, since they were constructed in 1997, located in Elkhart County, and have the unlimited PTE of VOC equal to or greater than fifteen (15) pounds per day before add-on controls, and this source performs miscellaneous metal surface coating under the Standard Industrial Classification Code #37.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the three (3) manual assembly lines shall each not exceed three and five tenths (3.5) pounds of VOC per gallon of coating less water.

(ii) The three (3) manual assembly lines are also subject to the work practices specified under 326 IAC 8-2-9(f).

(iii) 326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a)(7), when using non-compliant coatings in the three (3) manual assembly lines, the source shall demonstrate compliance with the applicable 326 IAC 8-2-9 VOC content limitation(s), using a daily volume-weighted average of all coatings applied on a daily basis in the three (3) manual assembly lines.

(2) One (1) sidewall adhesive application process (SV1-6), one (1) undercoating operation for coating metal chassis and one (1) fiberglass cap windshield setting operation and repair:

(i) Pursuant to 326 IAC 8-2-1(a), 326 IAC 8-2-9(a), and 326 IAC 8-2-9(b), the one (1) sidewall adhesive application process (SV1-6), the one (1) undercoating operation for coating metal chassis and the one (1) fiberglass cap windshield setting operation and repair are not subject to the requirements of 326 IAC 8-2-9 because they each have a potential to emit less than fifteen (15) pounds of VOC per day before add-on controls

(b) Plant 2-35 (final paint plant)

(1) The five (5) full paint lines (Paint Lines A-E) and the one (1) repair line:

(i) Pursuant to 326 IAC 8-2-1(a) and 326 IAC 8-2-9(a), the five (5) full paint lines (Paint Lines A-E) and the one (1) repair line are subject to the requirements of 326 IAC 8-2-9, since they were constructed after 1996, located in Elkhart County, and have the unlimited PTE of VOC equal to or greater than fifteen (15) pounds per day before add-on controls, and this source performs miscellaneous metal surface coating under the Standard Industrial Classification Code #37.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), the volatile organic compound (VOC) content of coating delivered to each applicator at the five (5) full paint lines (Paint Lines A-E) and the one (1) repair line shall each not exceed three and five tenths (3.5) pounds of VOC per gallon of coating less water.

(ii) The five (5) full paint lines (Paint Lines A-E) and the one (1) repair line are also subject to the work practices specified under 326 IAC 8-2-9(f).

(iii) 326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a)(7), when using non-compliant coatings in the five (5) full paint lines (Paint Lines A-E) and the one (1) repair line, the source shall demonstrate compliance with the applicable 326 IAC 8-2-9 VOC content limitation(s), using a daily volume-weighted average of all coatings applied on a daily basis in the five (5) full paint lines (Paint Lines A-E) and the one (1) repair line.

(2) The two (2) paint prep areas, one (1) paint storage and mixing area, and the one (1) final inspection area:

(i) Pursuant to 326 IAC 8-2-1(a), 326 IAC 8-2-9(a), and 326 IAC 8-2-9(b), the two (2) paint prep areas, one (1) paint storage and mixing area, and the one (1) final inspection area are not subject to the requirements of 326 IAC 8-2-9 because they each have a potential to emit less than fifteen (15) pounds of VOC per day before add-on controls

(c) Plant 20-820 (welding and sidewall lamination)

(1) One (1) adhesive applicator:

(i) Pursuant to 326 IAC 8-2-1(a), 326 IAC 8-2-9(a), and 326 IAC 8-2-9(b), the one (1) adhesive applicator is not subject to the requirements of 326 IAC 8-2-9 because it has a potential to emit less than one hundred (100) tons per year of VOC.

(d) Plant 26-826 (white glove inspection area and dispatch)

(1) Four (4) inspection bays for final vehicle inspection and the one (1) white glove inspection:

(i) Pursuant to 326 IAC 8-2-1(a) and 326 IAC 8-2-9(a), the four (4) inspection bays for final vehicle inspection and the one (1) white glove inspection are subject to the requirements of 326 IAC 8-2-9, since they were in existence on July 1, 1990, located in Elkhart County, and have the unlimited PTE of VOC equal to or greater than fifteen (15) pounds per day before add-on controls, and this source performs miscellaneous metal surface coating under the Standard Industrial Classification Code #37.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), the volatile organic compound (VOC) content of coating delivered to each applicator at the four (4) inspection bays for final vehicle inspection and the one (1) white glove inspection shall each not exceed three and five tenths (3.5) pounds of VOC per gallon of coating less water.

(ii) The four (4) inspection bays for final vehicle inspection and the one (1) white glove inspection are also subject to the work practices specified under 326 IAC 8-2-9(f).

(iii) 326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a)(7), when using non-compliant coatings in the four (4) inspection bays for final vehicle inspection and the one (1) white glove inspection, the source shall demonstrate compliance with the applicable 326 IAC 8-2-9 VOC content limitation(s), using a daily volume-weighted average of all coatings applied on a daily basis in the four (4) inspection bays for final vehicle inspection and the one (1) white glove inspection.

(e) Plant 29-829 (diesel service center)

(1) Thirteen (13) diesel-engine motor home service bays:

(i) Pursuant to 326 IAC 8-2-1(a), 326 IAC 8-2-9(a), and 326 IAC 8-2-9(b), the thirteen (13) diesel-engine motor home service bays are not subject to the requirements of 326 IAC 8-2-9 because they have a potential to emit less than twenty-five (25) tons per year of VOC.

(f) Plant 450 (motor home assembly)

(1) One (1) motor home assembly line:

(i) Pursuant to 326 IAC 8-2-1(a) and 326 IAC 8-2-9(a), the one (1) motor home assembly line is subject to the requirements of 326 IAC 8-2-9, since it was constructed after 1996, located in Elkhart County, and has the unlimited PTE of VOC equal to or greater than fifteen (15) pounds per day before add-on controls, and this source performs miscellaneous metal surface coating under the Standard Industrial Classification Code #37.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), the volatile organic compound (VOC) content of coating delivered to each applicator at the one (1) motor home assembly line shall each not exceed three and five tenths (3.5) pounds of VOC per gallon of coating less water.

(ii) The one (1) motor home assembly line is also subject to the work practices specified under 326 IAC 8-2-9(f).

(iii) 326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a)(7), when using non-compliant coatings in the one (1) motor home assembly line, the source shall demonstrate compliance with the applicable 326 IAC 8-2-9 VOC content limitation(s), using a daily volume-weighted average of all coatings applied on a daily basis in the one (1) motor home assembly line.

(g) Plant 831 (lamination)

(1) Flow coat lamination machines (FCL1-FCL9):

(i) Pursuant to 326 IAC 8-2-1(a), 326 IAC 8-2-9(a), and 326 IAC 8-2-9(b), the flow coat lamination machines (FCL1-FCL9) are not subject to the requirements of 326 IAC 8-2-9 because they have a potential to emit less than fifteen (15) pounds of VOC per day before add-on controls.

(h) Plant 854 (gasoline service center)

(1) One (1) gasoline-engine motor home service operation:

(i) Pursuant to 326 IAC 8-2-1(a) and 326 IAC 8-2-9(a), the one (1) gasoline-engine motor home service operation is subject to the requirements of 326 IAC 8-2-9, since it was constructed in 2017, located in Elkhart County, and has the unlimited PTE of VOC equal to or greater than fifteen (15) pounds per day before add-on controls, and this source performs miscellaneous metal surface coating under the Standard Industrial Classification Code #37.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the one (1) gasoline-engine motor home service operation shall not exceed three and five tenths (3.5) pounds of VOC per gallon of coating less water.

(ii) One (1) gasoline-engine motor home service operation is also subject to the work practices specified under 326 IAC 8-2-9(f).

(iii) 326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a)(7), when using non-compliant coatings in the one (1) gasoline-engine motor home service operation, the source shall demonstrate compliance with the applicable 326 IAC 8-2-9 VOC content limitation(s), using a daily volume-weighted average of all coatings applied on a daily basis in the one (1) gasoline-engine motor home service operation.

326 IAC 8-2-12 (Wood furniture and cabinet coating)
This section applies to surface coated wood furnishings which include cabinets and any other coated furnishings made of solid wood, wood composition, or simulated wood. The nine (9) flow coat lamination machines, identified as FCL1-FCL9, located at Plant 831, coat wood paneling. Pursuant to 326 IAC 8-2-1(a)(4), the nine (9) flow coat lamination machines, identified as FCL1-FCL9, are not subject to this rule because the units were constructed after July 1, 1990, but do not have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
Pursuant to 326 IAC 8-4-3(a), the units listed in the table below are not subject to the requirements of 326 IAC 8-4-3 because the capacity of each tank is less than one hundred fifty thousand (150,000) liters (thirty-nine thousand (39,000) gallons). The capacities of the tanks are shown in the table below.

Unit	Capacity (gallons)
Plant 831 emergency generator diesel tank (EG2DT)	450
Plant 450 gasoline tank (GT1)	1,000
Plant 450 diesel fuel tank (DT1)	300

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
Pursuant to 326 IAC 8-9-1(a), the storage tanks EG2DT, GT1, and DT1 not subject to the requirements of 326 IAC 8-9 because the source is not located in Clark, Floyd, Lake, or Porter County. The source is located in Elkhart County.

326 IAC 8-22 (Miscellaneous Industrial Adhesives)
Pursuant to 326 IAC 8-22-1(a)(1), the source is not subject to the requirements of 326 IAC 8-22 because the source is not located in Lake or Porter County. The source is located in Elkhart County.

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 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements applicable to this source are as follows:

(a) Particulate Matter

Plant	Emission Unit	Control	Frequency
1-850	D1-01	bagfilter collector	When in operation
2-35	Two (2) paint prep areas	dry filters	
	Paint Line A		
	Paint Line B		
	Paint Line C		
	Paint Line D		
	Paint Line E		
	Repair Line		
450	woodworking (P450WW)	integral dust collector	

(b) Volatile Organic Compounds (VOC)

(1) The compliance determination requirements for the units listed below shall be determined by using the following equation:

VOC Emissions (tons/month) = Total VOC input to the surface coating operations in all plants except for Plant 2-35, including coatings, dilution solvents, and cleaning

Plant	Emission Units (June 21, 2004)
Emission Units and Pollution Control Equipment Summary	
1-850	D1-01
	SV1-6
	D1-04
20-820	EU-20B
26-826	Four (4) inspection bays
	GV26-1 through GV26-4
29-829	Diesel service center Thirteen (13) inspection bays
	GV29-1 through GV29-4
Insignificant Activities	
1-850	Fiberglass cap windshield GV31-2
831	FCL1 (formerly GV1-1)
	FCL2
	FCL3 (formerly GV32-1)
20-820	25 Weld Stations GV20-2 through GV20-10
22-822	6 Weld Stations
26-826	White Glove Inspection GV26-1 through GV26-4
32-7/8	4 Weld Stations
Combustion Facilities	
1-850	Emergency Generator SV1-7
35-833E	Fire Pump

(2) The compliance with the VOC content limitations on the following units 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.

Plant	Emission Units
1-850	D1-01
	D1-04
	Undercoating Operation
	Fiberglass cap windshield GV31-2
	Emergency Generator SV1-7
20-820	EU-20B
	25 Weld Stations GV20-2 through GV20-10

Plant	Emission Units
2-35	Paint Line A
	Paint Line B
	Paint Line C
	Paint Line D
	Paint Line E
	Repair Line
	Two (2) paint prep areas
	Paint Storage and Mixing Area
	Final Inspection Area
22-822	6 Weld Stations
26-826	Four (4) inspection bays
	White Glove Inspection
29-829	Thirteen (13) inspection bays
	GV29-1 through GV29-4
35-833E	Fire Pump
450	Motor home assembly line (formerly L1-Gold)
831	FCL1 (formerly GV1-1)
	FCL2
	FCL3 (formerly GV32-1)
854	gasoline-engine motor home service operation

(3) 326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a)(7), when using non-compliant coatings in the following operations, the source shall demonstrate compliance with the applicable 326 IAC 8-2-9 VOC content limitation(s), using a daily volume-weighted average of all coatings applied on a daily basis in the following operations.

Plant	Emission Units
1-850	D1-04
2-35	Paint Line A
	Paint Line B
	Paint Line C
	Paint Line D
	Paint Line E
26-826	Four (4) inspection bays
	White Glove Inspection
450	Motor home assembly line (formerly L1-Gold)
854	gasoline-engine motor home service operation

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

Emission Unit	Control	Parameter	Frequency	Range	Excursions and Exceedances
Two (2) Paint Prep Areas located in Plant 2-35 DV1-01 located in Plant 1-850 P450DC1 located in Plant 450	Dry Filters / Bagfilter Collector / Dust Collector	Visible Emissions	Daily	Normal-Abnormal	Response Steps
Paint lines A - E, Repair line located in Plant 2-35	Dry Filters	Placement, integrity, and particle loading	Daily		
		Overspray	Weekly while in operation		
		Overspray	Monthly inspections of rooftops and ground		

These monitoring conditions are necessary because the bagfilter collector, dry filters, and integral dust collector for D1-01 located in Plant 1-850, the two paint prep areas located in Plant 2-35, woodworking operation in Plant 450, and paint lines A through E located in Plant 2-35 must operate properly to assure compliance with 326 IAC 6-3-2, 326 IAC 2-2 (PSD Minor Limits), and/or 40 CFR 64 (CAM).

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 29, 2024.

The operation of this stationary multiple-plant complex which assembles and paints high-quality recreational vehicles that vary in floor plan and length shall be subject to the conditions of the attached proposed Part 70 Operating Permit Renewal No. 039-47470-00017.

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 Madison Spahn, Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or by telephone at (317) 233-3031 or (800) 451-6027, and ask for Madison Spahn or (317) 233-3031.

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

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: https://www.in.gov/idem/airpermit/public-participation/; and the Citizens' Guide to IDEM on the Internet at: https://www.in.gov/idem/resources/citizens-guide-to-idem/.

Appendix A: Emissions Calculations
Emissions Summary

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

	Uncontrolled Potential to Emit (tons/yr)							
Emission Unit	**PM**	**PM10**	**PM2.5**[5]	**SO_2**	**NOx**	**VOC**	**CO**	**Pb**
Plant 1-850 (Motorized Vehicle Assembly, Tile Floor Setting, and Sidewall Lamination)								
Woodworking Mill Room (D1-01)	23.09	23.09	23.09	-	-	-	-	-
Surface Coating: Surface Coating Booths, Sidewall Adhesive Application Process (SV1-6), and Manual Assembly Lines (D1-04) (Assembly Lines 1-Red, 2-Blue[8], and 3-White)	12.33	12.33	12.33	-	-	80.54	-	-
Cap assembly	-	-	-	-	-	2.22	-	-
Undercoating bays[6]	-	-	-	-	-	-	-	-
Cummins Onan Natural Gas-fired Emergency Generator	1.44E-03	2.95E-03	2.95E-03	8.94E-05	0.34	4.50E-03	0.57	-
Miscellaneous Woodworking (MC-850)	0.16	0.16	0.16	-	-	-	-	-
Woodworking (P850WW2 through P850WW14)	0.02	0.02	0.02	-	-	-	-	-
Touch-Up Painting (P850TP)	0.09	0.09	0.09	-	-	5.84	-	-
Plant 2-35 (Final Paint Plant)								
Surface Coating: Partial Paint Line (Paint Line A)	22.58	22.58	22.58	-	-	142.39	-	-
Surface Coating: Full Paint Lines (Paint Lines B through E)	16.27	16.27	16.27	-	-	306.31	-	-
Surface Coating: Repair Line and Undercoating Operation	0.43	0.43	0.43	-	-	93.28	-	-
Natural Gas Combustion: Paint Line A	0.10	0.39	0.39	0.03	5.15	0.28	4.33	-
Surface Coating: Two (2) Paint Prep Areas	4.56	4.56	4.56	-	-	2.74	-	-
Sanding: Two (2) Paint Prep Areas	142.35	142.35	142.35	-	-	-	-	-
Paint Storage and Mixing Area	4.56	4.56	4.56	-	-	2.74	-	-
Final Inspection Area	4.56	4.56	4.56	-	-	2.74	-	-
Adhesive Applicator	2.28	2.28	2.28	-	-	1.37	-	-
Plant 20-820 (Assembly and Welding)								
Adhesive Application (former EU1-7, former EU20-A)	0.07	0.07	0.07	-	-	24.89	-	-
Welding Operations (EU20-B + insignificant activities)	10.51	10.51	10.51	-	-	-	-	-
Welding Operations (EU20-C)	4.43	4.43	4.43	-	-	-	-	-
Natural Gas Combustion	4.96E-03	1.98E-02	1.98E-02	1.57E-03	0.26	0.01	0.22	1.31E-06
Plant 22-822 (Welding Operations)								
Welding Operations (22-822W)	0.43	0.43	0.43	-	-	-	-	-
Plant 26-826 (White Glove Inspection Area and Dispatch)								
Surface Coating: Inspection Area	1.04	1.04	1.04	-	-	18.91	-	-
Plant 28-828 (Warehouse and Wire Harness Assembly)								
wire harness assembly	8.21E-05	8.21E-05	8.21E-05	-	-	8.49E-03	-	8.21E-05
Service Operations								
Plant 29-829 Diesel Service Center	0.53	0.53	0.53			3.79		
Plant 854 Gasoline Service Center	0.51	0.51	0.51	-	-	3.60	-	-
Plant 32-7/8 and Plant 32A (Welding and Warehouse)								
Welding	0.29	0.29	0.29	-	-	-	-	-
Plant 35-833E (Fire Pump Southeast of Plant 2-35)								
Diesel Fire Pump	1.35	1.35	1.35	1.26	19.01	1.54	4.10	-
Plant 36-836 (Welding and Woodworking Operations)								
Welding Operations	3.18	3.18	3.18	-	-	-	-	-
Miscellaneous Woodworking (MC-836)	0.08	0.08	0.08	-	-	-	-	-
Woodworking Operation (P836WW1)	1.23E-03	1.23E-03	1.23E-03	-	-	-	-	-
Plant 56-5 (Warehouse and Welding)								
Welding	0.34	0.34	0.34	-	-	-	-	-
Plant 450 (Motor Home Assembly)								
Assembly (P450AO)[9]	1.17	1.17	1.17	-	-	21.21	-	-
Woodworking (P450WW)	0.38	0.38	0.38	-	-	-	-	-
Woodworking (P450WW2 through P450WW6)	8.21E-03	8.21E-03	8.21E-03	-	-	-	-	-
Miscellaneous operations (P450MO)	1.77	1.77	1.77	-	-	-	-	-
Natural gas combustion (P450NGC)	0.02	0.07	0.07	5.80E-03	0.97	5.31E-02	0.81	4.83E-06
Gasoline tank (GT1)	-	-	-	-	-	0.30	-	-
Diesel fuel tank (DT1)	-	-	-	-	-	6.25E-04	-	-
Plant 831 (Lamination)								
Lamination (FCL1, FCL2, and FCL3)[10]	-	-	-	-	-	2.35E-06	-	-
Lamination (FCL4 - FCL9)	-	-	-	-	-	6.05E-06	-	-
Emergency generator (EG2)	0.26	0.26	0.26	0.25	3.72	0.30	0.80	-
Diesel tank (EG2DT)	-	-	-	-	-	5.09E-04	-	-
Natural Gas Combustion	0.04	0.15	0.15	0.01	1.95	0.11	1.64	9.76E-06
Woodworking (P831WW1 - P831WW5)	4.52E-03	4.52E-03	4.52E-03	-	-	-	-	-
Routing Operations (P831SWR1 through P831SWR3, P831RR1, P831FR1, and P831FR2)	5.12	5.12	5.12	-	-	-	-	-
Total of surface coating operations not determined to be insignificant for PSD	-	-	-	-	-	***130.35***	-	-
Total of Plant 2-35 surface coating operations	-	-	-	-	-	***551.86***	-	-
Total	**264.93**	**265.41**	**265.41**	**1.55**	**31.40**	**715.19**	**12.46**	**9.80E-05**

See notes below Potential to Emit After Issuance table

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Potential to Emit after Control (tons/yr)								
Emission Unit	**PM**	**PM10**	**PM2.5**[3]	**SO_2**	**NOx**	**VOC**	**CO**	**Pb**
Plant 1-850 (Motorized Vehicle Assembly, Tile Floor Setting, and Sidewall Lamination)								
Woodworking Mill Room (D1-01)	23.09	23.09	23.09	-	-	-	-	-
Surface Coating: Surface Coating Booths, Sidewall Adhesive Application Process (SV1-6), and Manual Assembly Lines (D1-04) (Assembly Lines 1-Red, 2-Blue[8], and 3-White)	0.62	0.62	0.62	-	-	80.54	-	-
Cap assembly	-	-	-	-	-	2.22	-	-
Undercoating bays[6]	-	-	-	-	-	-	-	-
Cummins Onan Natural Gas-fired Emergency Generator	1.44E-03	2.95E-03	2.95E-03	8.94E-05	0.34	4.50E-03	0.57	-
Miscellaneous Woodworking (MC-850)	0.16	0.16	0.16	-	-	-	-	-
Woodworking (P850WW2 through P850WW14)	0.02	0.02	0.02	-	-	-	-	-
Touch-Up Painting (P850TP)	0.09	0.09	0.09	-	-	5.84	-	-
Plant 2-35 (Final Paint Plant)								
Surface Coating: Partial Paint Line (Paint Line A)	0.94	0.94	0.94	-	-	142.39	-	-
Surface Coating: Full Paint Lines (Paint Lines B through E)	0.81	0.81	0.81	-	-	306.31	-	-
Surface Coating: Repair Line and Undercoating Operation	0.02	0.02	0.02	-	-	93.28	-	-
Natural Gas Combustion: Paint Line A	0.10	0.39	0.39	0.03	5.15	0.28	4.33	-
Surface Coating: Two (2) Paint Prep Areas	4.56	4.56	4.56	-	-	2.74	-	-
Sanding: Two (2) Paint Prep Areas	14.24	14.24	14.24	-	-	-	-	-
Paint Storage and Mixing Area	4.56	4.56	4.56	-	-	2.74	-	-
Final Inspection Area	4.56	4.56	4.56	-	-	2.74	-	-
Adhesive Applicator	2.28	2.28	2.28	-	-	1.37	-	-
Plant 20-820 (Assembly and Welding)								
Adhesive Application (former EU1-7, former EU20-A)	3.50E-03	3.50E-03	3.50E-03	-	-	24.89	-	-
Welding Operations (EU20-B + insignificant activities)	10.51	10.51	10.51	-	-	-	-	-
Welding Operations (EU20-C)	4.43	4.43	4.43	-	-	-	-	-
Natural Gas Combustion	4.96E-03	1.98E-02	1.98E-02	1.57E-03	2.61E-01	1.44E-02	2.19E-01	1.31E-06
Plant 22-822 (Welding Operations)								-
Welding Operations (22-822W)	0.43	0.43	0.43	-	-	-	-	-
Plant 26-826 (White Glove Inspection Area and Dispatch)								
Surface Coating: Inspection Area	5.20E-02	5.20E-02	5.20E-02	-	-	18.91	-	-
Plant 28-828 (Warehouse and Wire Harness Assembly)								
wire harness assembly	8.21E-05	8.21E-05	8.21E-05	-	-	8.49E-03	-	8.21E-05
Service Operations								
Plant 29-829 Diesel Service Center	0.53	0.53	0.53	-	-	3.79	-	-
Plant 854 Gasoline Service Center	0.51	0.51	0.51	-	-	3.60	-	-
Plant 32-7/8 and Plant 32A (Welding and Warehouse)								
Welding	0.29	0.29	0.29	-	-	-	-	-
Plant 35-833E (Fire Pump Southeast of Plant 2-35)								
Diesel Fire Pump	1.35	1.35	1.35	1.26	19.01	1.54	4.10	-
Plant 36-836 (Welding and Woodworking Operations)								
Welding Operations	3.18	3.18	3.18	-	-	-	-	-
Miscellaneous Woodworking (MC-836)	0.08	0.08	0.08	-	-	-	-	-
Woodworking Operation (P836WW1)	1.23E-03	1.23E-03	1.23E-03	-	-	-	-	-
Plant 56-5 (Warehouse and Welding)								
Welding	0.34	0.34	0.34	-	-	-	-	-
Plant 450 (Motor Home Assembly)								
Assembly (P450AO)[9]	1.17	1.17	1.17	-	-	21.21	-	-
Woodworking (P450WW)	0.38	0.38	0.38	-	-	-	-	-
Woodworking (P450WW2 through P450WW6)	8.21E-03	8.21E-03	8.21E-03	-	-	-	-	-
Miscellaneous operations (P450MO)	1.77	1.77	1.77	-	-	-	-	-
Natural gas combustion (P450NGC)	1.84E-02	7.34E-02	7.34E-02	5.80E-03	0.97	5.31E-02	0.81	4.83E-06
Gasoline tank (GT1)	-	-	-	-	-	0.30	-	-
Diesel fuel tank (DT1)	-	-	-	-	-	6.25E-04	-	-
Plant 831 (Lamination)								
Lamination (FCL1, FCL2, and FCL3)[10]	-	-	-	-	-	2.35E-06	-	-
Lamination (FCL4 - FCL9)	-	-	-	-	-	6.05E-06	-	-
Emergency generator (EG2)	0.26	0.26	0.26	0.25	3.72	0.30	0.80	-
Diesel tank (EG2DT)	-	-	-	-	-	5.09E-04	-	-
Natural Gas Combustion	0.04	0.15	0.15	0.01	1.95	0.11	1.64	9.76E-06
Woodworking (P831WW1 - P831WW5)	4.52E-03	4.52E-03	4.52E-03	-	-	-	-	-
Routing Operations (P831SWR1 through P831SWR3, P831RR1, P831FR1, and P831FR2)	5.12	5.12	5.12	-	-	-	-	-
Total of surface coating operations not determined to be insignificant for PSD	-	-	-	-	-	***130.35***	-	-
Total of Plant 2-35 surface coating operations	-	-	-	-	-	***551.86***	-	-
Total	**86.54**	**87.02**	**87.02**	**1.55**	**31.40**	**715.19**	**12.46**	**9.80E-05**

See notes below Potential to Emit After Issuance table

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

	Potential to Emit after Issuance[1,2] (tons/yr)							
Emission Unit	**PM**	**PM10**	**PM2.5[3]**	**SO_2**	**NOx**	**VOC**	**CO**	**Pb**
Plant 1-850 (Motorized Vehicle Assembly, Tile Floor Setting, and Sidewall Lamination)								
Woodworking Mill Room (D1-01)	23.09	23.09	23.09	-	-		-	-
Surface Coating: Surface Coating Booths, Sidewall Adhesive Application Process (SV1-6), and Manual Assembly Lines (D1-04) (Assembly Lines 1-Red, 2-Blue[8], and 3-White)	0.62	0.62	0.62	-	-	note 4	-	-
Cap assembly	-	-	-	-	-		-	-
Undercoating bays[6]	-	-	-	-	-	note 5	-	-
Cummins Onan Natural Gas-fired Emergency Generator	1.44E-03	2.95E-03	2.95E-03	8.94E-05	0.34	4.50E-03	0.57	-
Miscellaneous Woodworking (MC-850)	0.16	0.16	0.16	-	-	-	-	-
Woodworking (P850WW2 through P850WW14)	0.02	0.02	0.02	-	-	-	-	-
Touch-Up Painting (P850TP)	0.09	0.09	0.09	-	-	5.84	-	-
Plant 2-35 (Final Paint Plant)								
Surface Coating: Partial Paint Line (Paint Line A)	0.94	0.94	0.94	-	-		-	-
Surface Coating: Full Paint Lines (Paint Lines B through E)	0.81	0.81	0.81	-	-	note 5	-	-
Surface Coating: Repair Line and Undercoating Operation	0.02	0.02	0.02	-	-		-	-
Natural Gas Combustion: Paint Line A	0.10	0.39	0.39	0.03	5.15	0.28	4.33	
Surface Coating: Two (2) Paint Prep Areas	4.56	4.56	4.56	-	-		-	-
Sanding: Two (2) Paint Prep Areas	14.24	14.24	14.24	-	-		-	-
Paint Storage and Mixing Area	4.56	4.56	4.56	-	-	note 5	-	-
Final Inspection Area	4.56	4.56	4.56	-	-		-	-
Adhesive Applicator	2.28	2.28	2.28	-	-		-	-
Plant 20-820 (Assembly and Welding)								
Adhesive Application (former EU1-7, former EU20-A)	3.50E-03	3.50E-03	3.50E-03	-	-	note 4	-	-
Welding Operations (EU20-B + insignificant activities)	10.51	10.51	10.51	-	-	-	-	-
Welding Operations (EU20-C)	4.43	4.43	4.43	-	-	-	-	-
Natural Gas Combustion	4.96E-03	1.98E-02	1.98E-02	1.57E-03	0.26	1.44E-02	0.22	1.31E-06
Plant 22-822 (Welding Operations)								
Welding Operations (22-822W)	0.43	0.43	0.43	-	-	-	-	-
Plant 26-826 (White Glove Inspection Area and Dispatch)								
Surface Coating: Inspection Area	5.20E-02	5.20E-02	5.20E-02	-	-	note 4	-	-
Plant 28-828 (Warehouse and Wire Harness Assembly)								
wire harness assembly	8.21E-05	8.21E-05	8.21E-05	-	-	8.49E-03	-	8.21E-05
Service Operations								
Plant 29-829 Diesel Service Center	0.53	0.53	0.53	-	-	note 4	-	-
Plant 854 Gasoline Service Center	0.51	0.51	0.51	-	-	3.60	-	-
Plant 32-7/8 and Plant 32A (Welding and Warehouse)								
Welding	0.29	0.29	0.29	-	-	-	-	-
Plant 35-833E (Fire Pump Southeast of Plant 2-35)								
Diesel Fire Pump	1.35	1.35	1.35	1.26	19.01	1.54	4.10	-
Plant 36-836 (Welding and Woodworking Operations)								
Welding Operations	3.18	3.18	3.18	-	-	-	-	-
Miscellaneous Woodworking (MC-836)	0.08	0.08	0.08	-	-	-	-	-
Woodworking Operation (P836WW1)	1.23E-03	1.23E-03	1.23E-03	-	-	-	-	-
Plant 56-5 (Warehouse and Welding)								
Welding	0.34	0.34	0.34	-	-	-	-	-
Plant 450 (Motor Home Assembly)								
Assembly (P450AO)[9]	1.17	1.17	1.17	-	-	21.21	-	-
Woodworking (P450WW)	0.38	0.38	0.38	-	-	-	-	-
Woodworking (P450WW2 through P450WW6)	8.21E-03	8.21E-03	8.21E-03	-	-	-	-	-
Miscellaneous operations (P450MO)	1.77	1.77	1.77	-	-	-	-	-
Natural gas combustion (P450NGC)	1.84E-02	7.34E-02	7.34E-02	5.80E-03	0.97	5.31E-02	0.81	4.83E-06
Gasoline tank (GT1)	-	-	-	-	-	0.30	-	-
Diesel fuel tank (DT1)	-	-	-	-	-	6.25E-04	-	-
Plant 831 (Lamination)								
Lamination (FCL1, FCL2, and FCL3)[10]	-	-	-	-	-	note 4	-	-
Lamination (FCL4 - FCL9)	-	-	-	-	-	6.05E-06	-	-
Emergency generator (EG2)	0.26	0.26	0.26	0.25	3.72	0.30	0.80	-
Diesel tank (EG2DT)	-	-	-	-	-	5.09E-04	-	-
Natural Gas Combustion	3.71E-02	0.15	0.15	0.01	1.95	0.11	1.64	9.76E-06
Woodworking (P831WW1 - P831WW5)	4.52E-03	4.52E-03	4.52E-03	-	-	-	-	-
Routing Operations (P831SWR1 through P831SWR3, P831RR1, P831FR1, and P831FR2)	5.12	5.12	5.12	-	-	-	-	-
Total of surface coating operations limited or not otherwise determined to be insignificant for PSD[4]	-	-	-	-	-	***240.19***	-	-
Total of Plant 2-35 surface coating operations[5]	-	-	-	-	-	***539.00***	-	-
Total	**86.54**	**87.02**	**87.02**	**1.55**	**31.40**	**812.46**	**12.46**	**9.80E-05**

Notes:
1. The shaded cells indicate where limits are included.
2. Pursuant to 326 IAC 6-3-2(d), the particulate emissions from surface coating operations shall be controlled by dry particulate filters and the Permittee shall operate the control devices in accordance with the manufacturer's specifications. Compliance with this standard, in conjuction with a conservative assumption of 95% capture and control, shall limit PM, PM10, and PM2.5 emissions from the surface coating operations to the values shown.
3. PM2.5 listed is direct PM2.5
4. Total VOC emissions from surface coating operations except units in Plant 2-35 on June 21, 2004 is limited to 240.19 tons per 12 consecutive months. Operations limited pursuant to CP 039-7335-00017, issued July 24, 1997 and SSM 039-12758-00017, issued May 15, 2001, as revised by Part 70 Operating Permit No. 039-7559-00017, issued June 21, 2004.
5. Total VOC emissions from surface coating operations for units in Plant 2-35 on June 21, 2004 is limited to 539 tons per 12 consecutive months. Operations limited pursuant to SSM No. 039-15620-00017, issued December 11, 2002.
6. Undercoating bays were relocated from Plant 2 (now Plant 2-35) in AA No. 039-34062-00017, issued March 18, 2014.
7. Booth SV20-1 in Plant 20 (now Plant 20-820) (formerly SV1-4) was relocated in SSM 039-31023-00017 and removed in AA No. 039-34062-00017.
8. Assembly Line 2-Blue was relocated from Plant 56-5 in SPM 039-39771-00017. The unit was originally constructed in Plant 1 (now Plant 1-850) in 1997 and relocated to Plant 56-5 in AA No. 039-34062-00017, issued March 18, 2014. Emissions have always been included in limits applicable to Plant 1-850.
9. Formerly L1-Gold, added in SSM 039-31023-00017, issued March 27, 2012.
10. FCL1, FCL2, and FCL3 were relocated to Plant 831 from Plant 1-850 in SPM 039-39771-00017 with no change to PTE.

HAPs

The potential to emit HAPs has not been calculated for all of the emissions units at the source because the Permittee is confident that the PTE for HAPs is greater than 25 tons per year for a combination of HAPs; the Permittee has elected to state that this source is major for HAPs rather than calculate the exact potential to emit for these pollutants.

Appendix A: Emissions Calculations
Plant 1 Woodworking
Mill Room D1-01

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Control Device	Outlet Grain Loading	Maximum Air Flow Rate	Uncontrolled PTE $PM/PM_{10}/PM_{2.5}$		Control Efficiency	Controlled PTE $PM/PM_{10}/PM_{2.5}$	
	grains/dscf	dscfm	lbs/hr	TPY	%	lbs/hr	TPY
bagfilter collector	0.030	20,500	10542.86	46177.71	99.95%	5.27	23.09

Methodology:
It is assumed that $PM=PM_{10}=PM_{2.5}$.
Conversion Factors: 7000 grains/pound; 60 minutes/hour; 8,760 hours/year; 2,000 pounds/ton
PTE of PM/PM_{10} after Control (lbs/hr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr
PTE of PM/PM_{10} after Control (tons/yr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr x 8760 hr/yr x 1 ton/2000 lbs
PTE of PM/PM_{10} before Control (tons/yr) = PTE of PM/PM_{10} after Control (tons/yr) / (1-Control Efficiency)

Appendix A: Emissions Calculations
Plant 1 -850 Assembly

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Includes VOC & Particulate emissions from: Sidewall Adhesive Application Process (SV1-6), and Manual Assembly Lines (Assembly Lines 1-Red and 3-White) in Plant 1-850, and Assembly Line 2 - Blue now located in Plant 56-5

Material Name	Material ID Number	Application Method	Density (lbs/gal)	Weight % Volatiles (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Material Usage (gal/unit)	Production Capacity (units/yr)	Material Usage (gal/day)	VOC (lbs/gal) Less Water	VOC (lbs/gal)	Transfer Efficiency	VOC Emissions (lbs/hr)	VOC Emissions (lbs/day)	VOC Emissions (tons/yr)	Particulate Emissions (lbs/hr)	Particulate Emissions (tons/yr)	Particulate Emissions after controls (tons/yr)
Adhesives*																			
DAP WELDWOOD CRPNTR'S GLUE #494	30207(494)	flow	9.17	0.02	0	2.40%	0	1.00	7,000	19.18	0.22	0.22	100%	0.18	4.22	0.77	0	0	0
ADHESIVE INDUSTRIAL 3M	1300	tube	7.34	0.62	0	62.00%	0	0.02	7,000	0.38	4.55	4.55	100%	0.07	1.75	0.32	0	0	0
ADHESIVE MULTI-PURPOSE	S-235	wipe	9.84	0.33	0	33.00%	0	0.02	7,000	0.38	3.25	3.25	100%	0.05	1.25	0.23	0	0	0
ADHESIVE PARR/5941 CONSTRUCTION 40	5927/40	tube	9.34	0.35	0	35.00%	0	0.85	7,000	16.30	3.27	3.27	100%	2.22	53.29	9.73	0	0	0
ADHESIVE PRO-BOND	AP 32	N.A Spray	7.42	0.99	0	98.50%	0	0.02	7,000	0.38	7.31	7.31	100%	0.12	2.80	0.51	0	0	0
ADHESIVE SIKAFLEX 221	221	tube	9.90	5.99%	0	5.99%	0	0.40	7,000	7.67	0.59	0.59	100%	0.19	4.55	0.83	0	0	0
ADHESIVE SPRAY STAPUT	97351	N.A Spray	10.00	0.95	0	95.00%	0	0.04	7,000	0.67	9.50	9.50	100%	0.27	6.38	1.16	0	0	0
ADHESIVE SUPER TAK HIGH PERF	SUPER TAK	N.A Spray	5.73	0.60	0	60.00%	0	0.25	7,000	4.79	3.44	3.44	100%	0.69	16.48	3.01	0	0	0
ADHESIVE STICK-UP	STICKUP	N.A Spray	7.50	0.52	0	52.00%	0	0.03	7,000	0.48	3.90	3.90	100%	0.08	1.87	0.34	0	0	0
ADHESIVE HOT MELT PUR-FECT LOK	34-9014	flow	8.88	0	0	0.00%	0	2.00	7,000	38.36	0	0	100%	0	0	0	0	0	0
ADHESIVE RED WHISPER SPRAY	LSC711700	N.A Spray	10.30	0.10	0	10.00%	0	1.50	7,000	28.77	1.03	1.03	75%	1.23	29.63	5.41	2.78	12.17	0.61
MORAD WATER REACTIVE URETHANE	M-642	rollcoat	9.26	0	0	0.00%	0	2.00	7,000	38.36	0	0	100%	0	0	0	0	0	0
Solvents/Cleaners																			
CLEANER CITRUS	CM-911	wipe	7.00	0	0	0.00%	0	0.25	7,000	4.79	0	0	100%	0	0	0	0	0	0
CLEANER FASTASTIC II	-	wipe	11.68	0.98	0	98.00%	0	0.02	7,000	0.31	11.45	11.45	100%	0.15	3.51	0.64	0	0	0
CLEANER NU PANEL DAP	14220	wipe	8.17	0.15	0	15.00%	0	0.03	7,000	0.63	1.23	1.23	100%	0.03	0.78	0.14	0	0	0
CLEANER SPRAYON GLASS	SPR00880	aerosol	8.10	0.11	0	11.00%	0	0.15	7,000	2.88	0.89	0.89	100%	0.11	2.56	0.47	0	0	0
CLEANER 3M NATURAL	3M	wipe	6.36	1.00	0	100.00%	0	0.10	7,000	1.92	6.36	6.36	100%	0.51	12.20	2.23	0	0	0
ACETONE HI-MOISTURE	UN-1090	wipe	6.60	0	0	0.00%	0	0.33	7,000	6.33	0	0	100%	0	0	0	0	0	0
LUBRICANT SPRAY SILICONE	MC-43	aerosol	4.74	0.92	0	92.00%	0	0.50	7,000	9.59	4.36	4.36	75%	1.74	41.82	7.63	0.04	0.17	8.30E-03
SHER-WILL-CLEAN	R7K156	wipe	6.39	1.00	0	100.00%	0	0.13	7,000	2.40	6.39	6.39	100%	0.64	15.32	2.80	0	0	0
SOLVENT METHY ETHYL KETONE	4-MEK-D	wipe	6.70	1.00	0	100.00%	0	0.10	7,000	1.92	6.70	6.70	100%	0.54	12.85	2.35	0	0	0
Paints																			
PAINT BLACK DIP ENAMEL - FRAME	5-209	dip	13.50	0.26	0	25.60%	0	13.50	7,000	258.90	3.46	3.46	100%	2.76	66.24	12.09	0	0	0
XYLENE (DIP TANK) - REDUCER	UN-1307	wipe	7.24	1.00	0	100.00%	0	7.24	7,000	138.85	7.24	7.24	100%	1.45	34.80	6.35	0	0	0
Sealants																			
SEALANT BLACK	R-900	tube	10.17	0.25	0	25.30%	0	0.25	7,000	4.79	2.57	2.57	100%	0.51	12.34	2.25	0	0	0
SEALANT SILICONE WHITE	795	aerosol	12.51	0.02	0	2.00%	0	1.00	7,000	19.18	0.25	0.25	100%	0.20	4.80	0.88	0	0	0
SEALANT MANUS BOND ALL COLORS	75-AM/76-AM	tube	22.50	0.12	0	12.00%	0	1.25	7,000	23.97	2.70	2.70	100%	2.70	64.73	11.81	0	0	0
SEALANT DURASHELL	R-3000	tube	9.59	0.40	0	39.60%	0	0.05	7,000	0.96	3.80	3.80	100%	0.15	3.64	0.66	0	0	0
SEALANT WET & DRY LEAK	10,570.00	tube	12.51	0.18	0	18.00%	0	0.10	7,000	1.92	2.25	2.25	100%	0.18	4.32	0.79	0	0	0
SILICONE BLACK	MS101C/88436	tube	8.46	0.30	0	30.00%	0	0.37	7,000	7.10	2.54	2.54	100%	0.75	18.01	3.29	0	0	0
SILICONE WHITE	MS101C/88437	tube	8.46	0.30	0	30.00%	0	0.37	7,000	7.10	2.54	2.54	100%	0.75	18.01	3.29	0	0	0
TAC FREE BODY FILLER	0297	brush	10.00	0.00%	0	0.00%	0	0.10	7,000	1.92	0	0	100%	0	0	0	0	0	0
VARISEAL	VT4	tube	5.84	0.95	0	95.00%	0	0.01	7,000	0.19	5.55	5.55	100%	0.04	1.06	0.19	0	0	0
FOAM SEAL BLACK RESIN "A"	FSA	N.A Spray	10.34	0	0	0.00%	0	0.50	7,000	9.59	0	0	100%	0	0	0	0	0	0
FOAM SEAL BLACK RESIN "B"	S7880	N.A Spray	9.84	2.00%	0	2.00%	0	0.50	7,000	9.59	0.20	0.20	100%	0.08	1.89	0.34	0	0	0
ENERFOAM NBS	ENER 42	N.A Spray	10.00	0.01	0	1.30%	0	0.10	7,000	1.92	0.13	0.13	100%	0.01	0.25	0.05	0	0	0

*The material being sprayed in the sidewall adhesive application process is very thick and the consistency of a spider web. The process therefore produces only negligible particulate emissions.

It is assumed that $PM=PM_{10}=PM_{2.5}$.

Material Usage (gal/day) 672.46
Total not applied by dip, flow, roll, or brush 28.77

Potential to Emit: 18.39 | 441.33 | 80.54 | 2.82 | 12.33 | 0.62

Methodology

Transfer Efficiency - Hand or Manual Application = 100% and HVLP = 75%
Weight % Organics = Weight % Volatiles (H20 & Organics) - Weight % Water
VOC (lbs/gal) Less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
VOC (lbs/gal) = Density (lb/gal) * Weight % Organics
VOC Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (1 yr/8760 hrs)
VOC Emissions (lbs/day) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/ day)
VOC Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/day) * (365 day/yr) * (1 ton/2000 lbs)
Particulate Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (1 yr/8760 hrs)
Particulate Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs)

Appendix A: Emissions Calculations
1-850 Cap Assembly

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

1. VOC and PM

Material	Material ID Number	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempts	Weight % Organics	Volume % Water & Exempts	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per Gallon of Coating less Water & Exempts	Pounds VOC per gallon of coating	Potential VOC (lb/hour)	Potential VOC (lb/day)	Potential VOC (ton/yr)	Particulate Potential (ton/yr)	Gallons of Coating (gal/day)	Application Method	Transfer Efficiency
SIKA PRIMER 207	532721	8.09	68.00%	0%	68.00%	0%	0.0150	3.50	5.50	5.50	0.29	6.93	1.27	0.00	1.26	brush	100%
SIKAFLEX 220	404965	9.93	5.00%	0%	5.00%	0%	0.1250	3.50	0.50	0.50	0.22	5.21	0.95	0.00	10.50	brush	100%
Total or Worst Case Potential to Emit:											**0.51**	**12.14**	**2.22**	**0.00**			

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas
4-Stroke Rich-Burn (4SRB) Engines
Plant 1-850 Emergency Generator

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Maximum Output Horsepower Rating (hp)	80
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	7600
Maximum Hours Operated per Year (hr/yr)	500
Potential Fuel Usage (MMBtu/yr)	304
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	0.30

	Pollutant						
Criteria Pollutants	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	9.50E-03	1.94E-02	1.94E-02	5.88E-04	2.21E+00	2.96E-02	3.72E+00
Potential Emissions (tons/yr)	1.44E-03	2.95E-03	2.95E-03	8.94E-05	0.34	4.50E-03	0.57

*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)

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	2.79E-03	4.24E-04
Acrolein	2.63E-03	4.00E-04
Benzene	1.58E-03	2.40E-04
1,3-Butadiene	6.63E-04	1.01E-04
Formaldehyde	2.05E-02	3.12E-03
Methanol	3.06E-03	4.65E-04
Total PAH**	1.41E-04	2.14E-05
Toluene	5.58E-04	8.48E-05
Xylene	1.95E-04	2.96E-05
	Total	**4.88E-03**

HAP pollutants consist of the nine highest HAPs included in AP-42 Table 3.2-3.
**PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Methodology
Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-3
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]

Appendix A: Emissions Calculations
Plant 2-35 (Line A) Surface Coating

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Minor Source Modification No.: 039-47470-00017
Reviewer: Madison Spahn

Material Name	Material ID Number	Application Method	Density (lbs/gal)	Weight % Volatiles (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Material Usage (gal/unit)	Production Capacity (units/yr)	Material Usage (gal/day)	VOC (lbs/gal) Less Water	VOC (lbs/gal)	Transfer Efficiency	Control Efficiency	VOC Emissions (lbs/hr)	VOC Emissions (lbs/day)	VOC Emissions (tons/yr)	Uncontrolled Particulate Emissions (lbs/hr)	Uncontrolled Particulate Emissions (tons/yr)	Controlled Particulate Emissions (tons/yr)
Solvents/Cleaners																				
ACETONE HI-MOISTURE	UN-1090	wipe	6.60	0	0	0	0	8.00E-03	5,000.00	0.11	0	0	100%	95%	0	0	0	0	0	0
CLEANER	DX533	wipe	9.76	1.00	0	1.00	0	8.00E-03		0.11	9.76	9.76	100%	95%	0.04	1.07	0.20	0	0	0
CLEANER AQUA MATE WB	W4K157	wipe	8.30	0.16	0	0.16	0	0.50		6.85	1.34	1.34	100%	95%	0.38	9.15	1.67	0	0	0
CLEANER LOW VOC (PAINT)	DX380	wipe	8.31	0.94	0	0.94	0	4.00E-03		0.05	7.81	7.81	100%	95%	0.02	0.43	0.08	0	0	0
CLEANER PRE-CLEAN	DX330	wipe	6.35	1.00	0	1.00	0	0.04		0.55	6.35	6.35	100%	95%	0.14	3.48	0.64	0	0	0
CLEANER SPRAYON GLASS	880	spray	8.10	0.11	0	0.11	0	8.00E-03		0.11	0.89	0.89	75%	95%	4.07E-03	0.10	0.02	8.23E-03	0.04	1.80E-03
GUN CLEANER 4-GCL	UN1263	wipe	6.78	0.90	0	0.90	0	0.08		1.10	6.10	6.10	100%	95%	0.28	6.69	1.22	0	0	0
THINNER ALL PURPOSE LACQUER	DTL10	wipe	7.00	0.69	0	0.69	0	0.02		0.22	4.82	4.82	100%	95%	0.04	1.06	0.19	0	0	0
THINNER	DTL151G	Not. Appl.	6.64	0.35	0	0.35	0	0.01		0.16	2.32	2.32	100%	95%	0.02	0.38	0.07	0	0	0
THINNER ALL PURPOSE	DTL16G	Not. Appl.	6.66	0.70	0	0.70	0	0.50		6.85	4.66	4.66	100%	95%	1.33	31.93	5.83	0	0	0
THINNER LACQUER	5033	Not. Appl.	7.10	0.82	0	0.82	0	0.16		2.19	5.82	5.82	100%	95%	0.53	12.76	2.33	0	0	0
SOLVENT REDUCER	DRR1185	wipe	7.42	0.96	0	0.96	0	0.50		6.85	7.15	7.15	100%	95%	2.04	48.99	8.94	0	0	0
PURE GRADE LACQUER THINNER	THINNER	Not. Appl.	7.50	0.91	0	0.91	0	1.50		20.55	6.80	6.80	100%	95%	5.82	139.78	25.51	0	0	0
Paints																				
ACTIVATOR	NCX255	spray (HVLP)	7.70	0.44	0	0.44	0	8.00E-03	5,000.00	0.11	3.35	3.35	75%	95%	0.02	0.37	0.07	4.97E-03	0.02	1.09E-03
ADDITIVE PAINT SUPERCHARGER	DFX7	spray (HVLP)	8.01	0.98	0	0.98	0	0.08		1.10	7.81	7.81	75%	95%	0.36	8.56	1.56	2.29E-03	0.01	5.01E-04
BLENDER ACRYLIC COLOR	DXA100	spray (HVLP)	7.11	0.74	0	0.74	0	8.00E-03		0.11	5.26	5.26	75%	95%	0.02	0.58	0.11	2.11E-03	9.24E-03	4.62E-04
BLENDER UNIVERSAL	DX830	spray (HVLP)	7.59	0.58	0	0.58	0	8.00E-03		0.11	4.39	4.39	75%	95%	0.02	0.48	0.09	3.65E-03	0.02	7.99E-04
CATALYST	DX84	spray (HVLP)	8.17	0.98	0	0.98	0	0.02		0.22	8.04	8.04	75%	95%	0.07	1.76	0.32	2.98E-04	1.31E-03	6.54E-05
CATALYST	DU5	spray (HVLP)	8.45	0.46	0	0.46	0	1.00E-03		0.01	3.89	3.89	75%	95%	0.00	0.05	9.72E-03	6.51E-04	2.85E-03	1.43E-04
CATALYST	NCX275	spray (HVLP)	8.26	0.41	0	0.41	0	4.00E-03		0.05	3.37	3.37	75%	95%	0.01	0.18	0.03	2.79E-03	0.01	6.11E-04
CATALYST DELTRON	DAU2	spray (HVLP)	7.85	0.95	0	0.95	0	8.00E-03		0.11	7.46	7.46	75%	95%	0.03	0.82	0.15	4.48E-04	1.96E-03	9.81E-05
CATALYST PRETREATMENT	NCX290	spray (HVLP)	8.33	0.39	0	0.39	0	0.01		0.16	3.21	3.21	75%	95%	0.02	0.53	0.10	8.77E-03	0.04	1.92E-03
CLEARCOAT COMPLIANT	DCD35	spray (HVLP)	8.24	0.40	0	0.40	0	1.25		17.12	3.27	3.27	75%	95%	2.33	56.02	10.22	8.86E-01	3.88	0.19
FISH EYE PREVENTER	DX77	spray (HVLP)	7.22	0.99	0	0.99	0	0.01		0.16	7.15	7.15	75%	95%	0.05	1.17	0.21	1.24E-04	5.42E-04	2.71E-05
HARDENER	DU4	spray (HVLP)	8.18	0.55	0	0.55	0	0.25		3.42	4.47	4.47	75%	95%	0.64	15.30	2.79	1.32E-01	0.58	0.03
PAINT	DBU	spray (HVLP)	9.50	0.37	0	0.37	0	2.00		27.40	3.50	3.50	75%	95%	3.99	95.78	17.48	1.71E+00	7.51	0.38
PAINT	DCU2020	spray (HVLP)	8.18	0.55	0	0.55	0	0.01		0.16	4.50	4.50	75%	95%	0.03	0.74	0.13	6.30E-03	0.03	1.38E-03
PAINT BROMA GLOSS SPRAY LACQUER	110/115/109	spray (HVLP)	8.21	0.41	0	0.41	0	0.02		0.22	3.33	3.33	75%	95%	0.03	0.73	0.13	1.12E-02	0.05	2.44E-03
PAINT DAU COLOR	DAU	spray (HVLP)	9.50	0.39	0	0.39	0	4.00E-03		0.05	3.66	3.66	75%	95%	0.01	0.20	0.04	3.33E-03	0.01	7.30E-04
PAINT DIU BASECOAT	DIU 1&2	spray (HVLP)	9.50	0.62	0	0.62	0	0.02		0.22	5.84	5.84	75%	95%	0.05	1.28	0.23	8.35E-03	0.04	1.83E-03
PAINT DURACRYL ACRYLIC LACQUER	DDL	spray (HVLP)	7.92	0.72	0	0.72	0	0.02		0.22	5.70	5.70	75%	95%	0.05	1.25	0.23	5.06E-03	0.02	1.11E-03
PRIMER	NCP250	spray (HVLP)	10.87	0.32	0	0.32	0	0.25		3.42	3.50	3.50	75%	95%	0.50	11.99	2.19	2.63E-01	1.15	0.06
REDUCER	DT860/DT870	spray (HVLP)	7.00	1.00	0	1.00	0	0.10		1.42	7.00	7.00	75%	95%	0.42	9.97	1.82	0.00E+00	0	0
REDUCER WARM TEMPERATURE	DT885	spray (HVLP)	7.21	0.98	0	0.98	0	0.25		3.42	7.03	7.03	75%	95%	1.00	24.07	4.39	6.43E-03	0.03	1.41E-03
SEALER 3.5 VOC	NCS1990	spray (HVLP)	12.51	0.24	0	0.24	0	0.50		6.85	3.04	3.04	75%	95%	0.87	20.82	3.80	6.76E-01	2.96	0.15
SOLVENT ANTI-STAT PREP	DX103	spray (HVLP)	6.26	1.00	0	1.00	0	0.06		0.77	6.26	6.26	75%	95%	0.20	4.80	0.88	0.00E+00	0	0
SV2-35	Basecoat	7.60	0.81	0.10%	0.81	0	0.28	4.20	1,400.00	16.11	6.15	6.15	75%	98%	4.13	99.05	18.08	0.24	1.06	0.02
SV2-36	Clear RTS	8.40	0.60	0.10%	0.60	0	0.40	8.70	1,400.00	33.37	5.03	5.03	75%	98%	7.00	167.90	30.64	1.17	5.12	0.10
*Material in booths SV2-35 and SV2-36 are applied using HVLP guns.									**Material Usage (gal/day):**	**162.04**				**Potential to Emit:**	**32.51**	**780.22**	**142.39**	**5.16**	**22.58**	**0.94**
It is assumed that $PM=PM_{10}=PM_{2.5}$.									**Total not applied by dip, flow, roll, or brush**	**116.45**										

Methodology

Transfer Efficiency - Hand or Manual Application = 100%, Aerosol = 50%, HVLP = 75%
Weight % Organics = Weight % Volatiles (H20 & Organics) - Weight % Water
VOC (lbs/gal) Less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
VOC (lbs/gal) = Density (lb/gal) * Weight % Organics
VOC Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (1 yr/8760 hrs)
VOC Emissions (lbs/day) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/ day)
VOC Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/day) * (365 day/yr) * (1 ton/2000 lbs)
Uncontrolled Particulate Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (1 yr/8760 hrs)
Uncontrolled Particulate Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs)
Controlled Particulate Emissions (tons/yr) = Material Usage (gal/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs) * (1-Control Efficiency)

Appendix A: Emissions Calculations

Plant 2-35 (Line B - E) Surface Coating

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Material Name	Material ID Number	Application Method	Density (lbs/gal)	Weight % Volatiles (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Material Usage (gal/unit)	Production Capacity (units/yr)	Material Usage (gal/day)	VOC (lbs/gal) Less Water	VOC (lbs/gal)	Transfer Efficiency	Control Efficiency	VOC Emissions (lbs/hr)	VOC Emissions (lbs/day)	VOC Emissions (tons/yr)	Uncontrolled Particulate Emissions (lbs/hr)	Uncontrolled Particulate Emissions (tons/yr)	Controlled Particulate Emissions (tons/yr)
Paints																				
BC BASES & COLORS	DAB	spray (HVLP)	8.50	0.67	0	0.67	0	3.60		19.73	5.70	5.70	75%	95%	4.69	112.51	20.53	0.57	2.52	0.13
DIAMOND PRIMER	DP21	spray (HVLP)	12.50	0.28	0	0.28	0	0.04		0.19	3.50	3.50	75%	95%	0.03	0.67	0.12	0.02	0.08	3.94E-03
DIAMOND HS HARDENER	DH61/PH61	spray (HVLP)	8.27	0.59	0	0.59	0	0.04		0.19	4.85	4.85	75%	95%	0.04	0.93	0.17	6.82E-03	0.03	1.49E-03
ETCHING PRIMER	DE17	spray (HVLP)	9.34	0.58	0	0.58	0	0.10		0.55	5.39	5.39	75%	95%	0.12	2.95	0.54	0.02	0.10	4.94E-03
DIAMOND ETCHING ACTIVATOR	DA18	spray (HVLP)	6.74	0.96	0	0.96	0	1.00		5.48	6.50	6.50	75%	95%	1.48	35.60	6.50	0.01	0.06	3.03E-03
DIAMOND SPEED DRY CLEAR	DC95	spray (HVLP)	7.86	0.45	0	0.45	0	5.00		27.40	3.50	3.50	75%	95%	3.99	95.83	17.49	1.24	5.45	0.27
DIAMOND CLEAR HARDENER	DH49	spray (HVLP)	8.36	0.42	0	0.42	0	2.25		12.33	3.51	3.51	75%	95%	1.80	43.29	7.90	0.62	2.73	0.14
ACRYLIC LACQUER PRIMER & SEAL	131S	spray (HVLP)	8.06	0.60	0	0.60	0	0.60		3.29	4.80	4.80	75%	95%	0.66	15.79	2.88	0.11	0.49	0.02
UR40 UNIVERSAL LOW TEMP REDUCER	UR40	spray (HVLP)	7.40	1.00	0	1.00	0	0.50	2,000.00	2.74	7.40	7.40	75%	95%	0.84	20.27	3.70	0	0	0
UR50 UNIVERSAL MID TEMP REDUCER	UR50	spray (HVLP)	7.29	1.00	0	1.00	0	2.00		10.96	7.29	7.29	75%	95%	3.33	79.89	14.58	0	0	0
UR60 UNIVERSAL HIGH TEMP REDUCER	UR60	spray (HVLP)	7.55	0.99	0	0.99	0	0.33		1.78	7.50	7.50	75%	95%	0.56	13.35	2.44	9.80E-04	4.29E-03	2.15E-04
809 FISHEYE ELIMINATOR	809	spray (HVLP)	7.29	0.95	0	0.95	0	1.00E-03		5.48E-03	6.90	6.90	75%	95%	1.58E-03	0.04	6.90E-03	2.21E-05	9.66E-05	4.83E-06
811 CLEAR ADHESION PROMOTER	811	spray (HVLP)	7.03	0.14	0	0.14	0	0.25		1.37	1.00	1.00	75%	95%	0.06	1.37	0.25	0.09	0.38	0.02
891 FLEX AGENT	891	spray (HVLP)	7.30	0.81	0	0.81	0	0.03		0.16	5.90	5.90	75%	95%	0.04	0.97	0.18	2.40E-03	0.01	5.26E-04
DF25 DIAMOND FLEX	DF25	spray (HVLP)	8.82	0.30	0	0.30	0	0.06		0.33	2.60	2.60	75%	95%	0.04	0.86	0.16	0.02	0.09	4.66E-03
521-10 RAPID ADDITIVE	521-10	spray (HVLP)	7.33	1.00	0	1.00	0	0.01		0.05	7.30	7.30	75%	95%	0.02	0.40	0.07	1.67E-05	7.33E-05	3.67E-06
SRA REDUCER	5021/5022	spray (HVLP)	7.00	1.00	0	1.00	0	0.27		1.48	7.00	7.00	75%	95%	0.43	10.36	1.89	0	0	0
3M NO CLEANUP ROCKER GARD	8949	spray (HVLP)	7.51	0.62	0	0.62	0	0.03		0.14	4.64	4.64	75%	95%	0.03	0.64	0.12	4.09E-03	0.02	8.97E-04
Composites																				
DDM 9 CLEAR	DDM9	hand (layup)	9.04	0.06	0	0.06	0	0.35		1.92	0.52	0.52	100%	95%	0.04	1.01	0.18	0	0	0
B5504 ACRYL-R PIGMENTED SEAM	B5504	hand (layup)	8.23	0.45	0	0.45	0	0.02		0.08	3.73	3.73	100%	95%	0.01	0.31	0.06	0	0	0
UNSATURATED POLYESTER RESIN	-	hand (layup)	9.05	0.07	0	0.07	0	1.50		8.22	0.59	0.59	100%	95%	0.20	4.83	0.88	0	0	0
CORVETTE WHITE GEL-COAT	774-WT14154	spray	10.63	0.11	0	0.11	0	0.20		1.10	1.15	1.15	75%	95%	0.05	1.26	0.23	0.11	0.47	0.02
DURAGLAS PUTTY	NA	hand (layup)	13.99	0.16	0	0.16	0	0.02	2,000.00	0.11	2.18	2.18	100%	95%	9.97E-03	0.24	0.04	0	0	0
TAC FREE BODYFILLER	A297	hand (layup)	10.00	0.06	0	0.06	0	3.00		16.44	0.60	0.60	100%	95%	0.41	9.86	1.80	0	0	0
KAMBI PUTTY	K3005	hand (layup)	13.00	0.26	0	0.26	0	0.03		0.14	3.39	3.39	100%	95%	0.02	0.46	0.08	0	0	0
DYNASTY WHITE GELCOAT	GM15120	spray	11.43	0.10	0	0.10	0	1.50		8.22	1.19	1.19	75%	95%	0.41	9.77	1.78	0.88	3.84	0.19
STYPOL 040-4385	040-4385	hand (layup)	9.04	0.05	0	0.05	0	0.39		2.14	0.46	0.46	100%	95%	0.04	0.99	0.18	0	0	0
PATCHING AID RESIN SOLUTION	CR-0425	hand (layup)	8.27	0.09	0	0.09	0	0.12		0.66	0.73	0.73	100%	95%	0.02	0.48	0.09	0	0	0
370 POLYESTER FIBERGLAS REPAIR	370.00	hand (layup)	9.25	0.05	0	0.05	0	5.00E-03		0.03	0.48	0.48	100%	95%	5.49E-04	0.01	2.41E-03	0	0	0
Solvents/Cleaners																				
PURE GRADE LACQUER THINNER	THINNER	Not. Appl.	7.50	0.91	0	0.91	0	7.50		41.10	6.80	6.80	100%	95%	11.65	279.55	51.02	0	0	0
SOLVENT ANTI-STAT PREP	DX103	wipe	6.26	1.00	0	1.00	0	6.26		34.30	6.26	6.26	100%	95%	8.95	214.73	39.19	0	0	0
900 PRE-KLEANO	900.00	wipe	6.28	1.00	0	1.00	0	6.28		34.41	6.28	6.28	100%	95%	9.00	216.10	39.44	0	0	0
ACETONE	UN1090	wipe	6.56	0	0	0	0	6.56	2,000.00	35.95	0	0	100%	95%	0	0	0	0	0	0
SHER-WILL-CLEAN	R7K156	wipe	6.39	1.00	0	1.00	0	6.39		35.01	6.39	6.39	100%	95%	9.32	223.74	40.83	0	0	0
3M PERFECT-IT II RUBBING COMPOUND	5,973.00	wipe	8.97	0.21	0	0.21	0	8.97		49.15	1.88	1.88	100%	95%	3.86	92.59	16.90	0	0	0
3M RUBBING COMPOUND	5954/55/56	wipe	10.66	0.30	0	0.30	0	10.66		58.41	3.20	3.20	100%	95%	7.78	186.80	34.09	0	0	0

It is assumed that $PM=PM_{10}=PM_{2.5}$.

Total Material Usage (gal/day):	**415.54**	**Paint Lines B through E Total Surface Coating Potential to Emit:**	**69.93**	**1,678.43**	**306.31**	**3.71**	**16.27**	**0.81**
Total not applied by dip, flow, roll, or brush	**138.58**							

Methodology

Transfer Efficiency - Hand or Manual Application = 100%, Aerosol = 50%, HVLP = 75%

Weight % Organics = Weight % Volatiles (H20 & Organics) - Weight % Water
VOC (lbs/gal) Less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
VOC (lbs/gal) = Density (lb/gal) * Weight % Organics
VOC Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (1 yr/8760 hrs)
VOC Emissions (lbs/day) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/ day)
VOC Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/day) * (365 day/yr) * (1 ton/2000 lbs)
Uncontrolled Particulate Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (1 yr/8760 hrs)
Uncontrolled Particulate Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs)
Controlled Particulate Emissions (tons/yr) = Material Usage (gal/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs) * (1-Control Efficiency)

Appendix A: Emissions Calculations
Plant 2-35 Repair & Undercoating Surface Coating

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Material Name	Material ID Number	Application Method	Density (lbs/gal)	Weight % Volatiles (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Material Usage (gal/unit)	Production Capacity (units/yr)	Material Usage (gal/day)	VOC (lbs/gal) Less Water	VOC (lbs/gal)	Transfer Efficiency	Control Efficiency	VOC Emissions (lbs/hr)	VOC Emissions (lbs/day)	VOC Emissions (tons/yr)	Uncontrolled Particulate Emissions (lbs/hr)[1]	Uncontrolled Particulate Emissions (tons/yr)	Controlled Particulate Emissions (tons/yr)
Cleaners/Solvents																				
SHER-WILL-CLEAN	R7K156	wipe	6.39	1.00	0	1.00	0	0.25		4.79	6.39	6.39	100%	95%	1.28	30.64	5.59	0	0	0
BRAKE CLEANER	4800	aerosol	6.71	0.96	0	0.96	0	0.18		3.45	6.41	6.41	75%	95%	0.92	22.12	4.04	0.01	0.05	2.38E-03
CITRUS CLEANER	CM-911	wipe	7.00	0	0	0	0	5.00E-03		0.10	0	0	100%	95%	0	0	0	0	0	0
FANTASTIC II	-	aerosol	11.68	0.98	0	0.98	0	5.00E-03		0.10	11.45	11.45	75%	95%	0.05	1.10	0.20	2.33E-04	1.02E-03	5.11E-05
NU PANEL DIP	14220	wipe	8.17	0.15	0	0.15	0	5.00E-03		0.10	1.23	1.23	75%	95%	4.90E-03	0.12	0.02	6.94E-03	0.03	1.52E-03
SPRAYON GLASS	SPR00880	aerosol	8.10	0.11	0	0.11	0	0.05	7,000.00	0.96	0.89	0.89	75%	95%	0.04	0.85	0.16	0.07	0.32	0.02
3M NATURAL	3M	aerosol	6.36	1.00	0	1.00	0	6.00E-03		0.12	6.36	6.36	75%	95%	0.03	0.73	0.13	0	0	0
ACETONE	UN-1090	wipe	6.60	0	0	0	0	0.05		0.96	0	0	100%	95%	0	0	0	0	0	0
LUBRICANT SPRAY SILICON	MC-43	aerosol	4.74	0.92	0	0.92	0	0.01		0.19	4.36	4.36	75%	95%	0.03	0.84	0.15	7.58E-04	3.32E-03	1.66E-04
TERP-A-CLEAN	-	wipe	7.85	0	0	0	0	0.10		1.92	0	0	100%	95%	0	0	0	0	0	0
BEA-TWEEN CARPET	-	aerosol	8.20	0	0	0	0	1.00E-03		0.02	0	0	75%	95%	0	0	0	1.64E-03	7.18E-03	3.59E-04
Paints																				
BROMA SPRAY	115/110	aerosol	8.21	0.41	0	0.41	0	5.00E-03	7,000.00	0.10	3.33	3.33	75%	95%	0.01	0.32	0.06	4.87E-03	0.02	1.07E-03
MOHAWK LACOVER 30	-	aerosol	7.34	0.90	0	0.90	0	5.00E-03		0.10	6.61	6.61	75%	95%	0.03	0.63	0.12	7.33E-04	3.21E-03	1.61E-04
Sealants																				
SEALANT SILICONE	795	aerosol	12.51	0.02	0	0.02	0	0.02	7,000.00	0.38	0.25	0.25	100%	95%	4.00E-03	0.10	0.02	0	0	0
SEALANT MANUS BOND ALL COLORS	75-AM/76-AM	wipe	22.50	0.12	0	0.12	0	0.08		1.53	2.70	2.70	100%	95%	0.17	4.14	0.76	0	0	0
Adhesives																				
MULTI-PURPOSE	S-235	wipe	9.84	0.33	0	0.33	0	5.00E-03	7,000.00	0.10	3.25	3.25	100%	95%	0.01	0.31	0.06	0	0	0
SUPER TAK HIGH PERFORM	SUPER TAK	wipe	5.73	0.60	0	0.60	0	0.02		0.29	3.44	3.44	100%	95%	0.04	0.99	0.18	0	0	0
Undercoating[2]																				
AQUA SEAL 2000 UNDERCOATING	2000	N.A. Spray	9.40	0.02	0	0.02	0	7.50	7,000.00	143.84	0.20	0.20	100%	95%	1.18	28.39	5.18	0	0	0
RUBBERIZED UNDERCOATING	735	N.A. Spray	7.93	0.44	0	0.44	0	6.26		120.05	3.50	3.50	100%	95%	17.49	419.85	76.62	0	0	0

Material Usage (gal/day) **279.08**
Total not applied by dip, flow, roll, or brush **5.22**

Potential to Emit: VOC Emissions (lbs/hr) **21.30**; VOC Emissions (lbs/day) **511.13**; VOC Emissions (tons/yr) **93.28**; Uncontrolled Particulate Emissions (lbs/hr) **0.10**; Uncontrolled Particulate Emissions (tons/yr) **0.43**; Controlled Particulate Emissions (tons/yr) **0.02**

Notes:
1. It is assumed that PM=PM$_{10}$=PM$_{2.5}$.
2. Undercoating operations moved to Plant 22, AA No. 039-34062-00017
issued March 18, 2014

Methodology

Transfer Efficiency - Hand or Manual Application = 100% and HVLP = 75%
Weight % Organics = Weight % Volatiles (H20 & Organics) - Weight % Water
VOC (lbs/gal) Less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
VOC (lbs/gal) = Density (lb/gal) * Weight % Organics
VOC Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (1 yr/8760 hrs)
VOC Emissions (lbs/day) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/ day)
VOC Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/day) * (365 day/yr) * (1 ton/2000 lbs)
Uncontrolled Particulate Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (1 yr/8760 hrs)
Uncontrolled Particulate Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs)
Controlled Particulate Emissions (tons/yr) = Material Usage (gal/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs) * (1-Control Efficiency)

Appendix A: Emissions Calculations
Plant 2-35 Paint Prep

Company Name:	Thor Wakarusa, LLC
Source Address:	606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.:	039-47470-00017
Reviewer:	Madison Spahn

Paint Lines	Maximum Throughput (units/hr)	Emission Factor (lbs/unit)	Control Efficiency*	Uncontrolled Particulate Emissions (lbs/hr)	Uncontrolled Particulate Emissions (tons/yr)	Controlled Particulate Emissions (lbs/hr)	Controlled Particulate Emissions (tons/yr)
Partial (Paint Line A)	2.50	5.00	0.90	12.50	54.75	1.25	5.48
Full (Paint Lines B through E)	1.00	20.00	0.90	20.00	87.60	2.00	8.76
Total				**32.50**	**142.35**	**3.25**	**14.24**

*Emissions are controlled by a general ventilation control system designed to achieve 90% collection efficiency, based on settling of large particles and capture of airborne particles in a filter at the
It is assumed that $PM=PM_{10}=PM_{2.5}$.

Methodology
Uncontrolled Particulate Emissions (lbs/hr) = Maximum Throughput (units/hr) * Emission Factor (lbs/unit)
Uncontrolled Particulate Emissions (tons/yr) = Maximum Throughput (units/hr) * Emission Factor (lbs/unit) * (8760 hr/yr) * (1 ton/2000 lbs)
Controlled Particulate Emissions (tons/yr) = Maximum Throughput (units/hr) * Emission Factor (lbs/unit) * (8760 hr/yr) * (1 ton/2000 lbs) * (1 - Control Efficiency)

Appendix A: Emissions Calculations
From Surface Coating Operations
Plant 2-35TU Touch Up Operation

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

1. VOC and PM

Manufacturer	Material	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempts	Weight % Organics	Volume % Water & Exempts	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per Gallon of	Pounds VOC per gallon of coating	Potential VOC (lb/hour)	Potential VOC (lb/day)	Potential VOC (ton/yr)	Particulate Potential (ton/yr)	Gallons of Coating (gal/day)	Application Method	Transfer Efficiency	Substrate
Touch up coatings																		
BASF	CB bases and colors	10.98	43.70%	0%	43.70%	0%	0.0156	3.50	4.80	4.80	0.26	6.29	1.15	0.52	1.31	airless spray	65%	metal
BASF	DC5335 Glamour Clear	7.87	60.00%	15.00%	45.00%	17.88%	0.0078	3.50	4.31	3.54	0.10	2.32	0.42	0.13	0.66	airless spray	65%	metal
Cleaning solvents																		
-	lacquer thinner	7.07	100.00%	0%	100.00%	0%	0.0078	3.50	7.07	7.07	0.19	4.63	0.85	0	0.66	wipe	100%	metal
										Total or Worst Case Potential to Emit:	**0.55**	**13.24**	**2.42**	**0.65**				

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

2. Hazardous Air Pollutants

Material ID	Density (lb/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % EB[1]	Weight % Methanol	Weight % Toluene	Weight % Xylene	EB Emissions (ton/yr)	Methanol Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
CB bases and colors[2]	10.98	0.0156	3.50	0.05%	0.00%	0.05%	0.10%	1.31E-03	0	1.31E-03	2.63E-03	5.25E-03
DC5335 Glamour Clear	7.87	0.0078	3.50	1.00%	0%	1.00%	3.00%	9.41E-03	0	9.41E-03	2.82E-02	4.71E-02
lacquer thinner	7.07	0.0078	3.50	0%	9.38%	66.28%	5.59%	0	7.93E-02	0.56	4.73E-02	0.69
Total Potential to Emit								**1.07E-02**	**7.93E-02**	**0.57**	**7.81E-02**	**0.74**

Notes
1. EB - ethylbenzene (CASRN 100-41-4)
2. HAP content based on default HAP concentrations for Stoddard Solvent (CASRN 80521-41-3) from Table 3, 40 CFR 63, Subpart MMMM and aliphatic groups from Table 4, 40 CFR 63, Subpart MMMM applied to heavy alkylate naphtha (CASRN 64741-65-7)

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Paint Line A

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

			Capacity (MMBtu/hr)	
Unit	ID	Number	Unit	Total
Bake oven	SV2-37	1	4.00	4.00
Air Makeup Unit	--	2	4.00	8.00
			Total	**12.00**

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
12.00	1,020.00	103.06

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	7.60	0.60	100.00 **see below	5.50	84.00
Potential Emission in tons/yr	0.10	0.39	0.39	0.03	5.15	0.28	4.33

*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 Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.10E-03	1.20E-03	0.08	1.80	3.40E-03	
Potential Emission in tons/yr	1.08E-04	6.18E-05	3.86E-03	0.09	1.75E-04	**0.10**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03	
Potential Emission in tons/yr	2.58E-05	5.67E-05	7.21E-05	1.96E-05	1.08E-04	**2.82E-04**
					Total HAPs	**0.10**
					Worst HAP	**0.09**

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: Emissions Calculations
from Surface Coating Operations
Plant 20-820 Adhesive Application

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Material Name	Material ID Number	Application Method	Density (lbs/gal)	Weight % Volatiles (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Material Usage (gal/unit)	Production Capacity (units/yr)	Material Usage (gal/day)	VOC (lbs/gal) Less Water	VOC (lbs/gal)	Transfer Efficiency	VOC Emissions (lbs/hr)	VOC Emissions (lbs/day)	VOC Emissions (tons/yr)	Particulate Emissions (lbs/hr)	Particulate Emissions (tons/yr)	Particulate Emissions after Controls (tons/yr)
Adhesives																			
ADH MOR-AD	M-622	rollcoat	9.09	0.15	0	15.00%	0	0.50		9.59	1.36	1.36	100%	0.54	13.07	2.39	0	0	0
ADH RED NON-FLAM WHISPER G	LSC71700	rollcoat	10.30	0.75	0	10.00%	0	2.00		38.36	1.03	1.03	100%	1.65	39.51	7.21	0	0	0
GLUE URETHANE HOT MELT	70-7872	flow	8.80	0.02	0	2.00%	0	4.00	7,000.00	76.71	0.18	0.18	100%	0.56	13.50	2.46	0	0	0
PUR-FECT LOK	34-3182	flow	8.80	0.02	0	2.00%	0	4.00		76.71	0.18	0.18	100%	0.56	13.50	2.46	0	0	0
STIX 246	246	rollcoat	8.00	0	0	0.00%	0	0.10		1.92	0	0	100%	0	0	0	0	0	0
SUPER-TAK HP ADHESIVE	-	rollcoat	5.73	0.59	0	59.30%	0	0.01		0.19	3.40	3.40	100%	0.03	0.65	0.12	0	0	0
Solvents/Cleaners																			
METHYL ETHYL KETONE	MEK	wipe	6.70	1.00	0	100.00%	0	0.10		1.92	6.70	6.70	100%	0.54	12.85	2.35	0	0	0
ACETONE HI-MOISTURE	UN-1090	wipe	6.60	0	0	0.00%	0	0.25		4.79	0	0	100%	0	0	0	0	0	0
CLEANER MESAMOLL	L-235	wipe	8.80	0	0	0.00%	0	0.02	7,000.00	0.38	0	0	100%	0	0	0	0	0	0
DYNASOLVE	CU-5	wipe	8.84	1.00	0	100.00%	0	0.10		1.92	8.84	8.84	100%	0.71	16.95	3.09	0	0	0
ISOPROPYL ALCOHOL	IPA	wipe	6.55	1.00	0	100.00%	0	0.10		1.92	6.55	6.55	100%	0.52	12.56	2.29	0	0	0
LUBRICANT SPRAY SILICONE	MC-43	aerosol	8.00	0.90	0	90.00%	0	0.10		1.92	7.20	7.20	75%	0.58	13.81	2.52	0.02	0.07	3.50E-03
									Material Usage (gal/day)	**216.33**			**Potential to Emit:**	**5.68**	**136.41**	**24.89**	**0.02**	**0.07**	**3.50E-03**
									Total not applied by dip, flow, roll, or brush	**1.92**									

It is assumed that $PM=PM_{10}=PM_{2.5}$.

Methodology

Transfer Efficiency - Hand or Manual Application = 100%, Aerosol = 50%, HVLP = 75%
Weight % Organics = Weight % Volatiles (H20 & Organics) - Weight % Water
VOC (lbs/gal) Less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
VOC (lbs/gal) = Density (lb/gal) * Weight % Organics
VOC Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (1 yr/8760 hrs)
VOC Emissions (lbs/day) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/ day)
VOC Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/day) * (365 day/yr) * (1 ton/2000 lbs)
Particulate Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (1 yr/8760 hrs)
Particulate Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs)

Appendix A: Emissions Calculations
Welding and Thermal Cutting
Plant 20-820

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

PROCESS WELDING	Number of Stations	Max. electrode consumption per station (lbs/hr)	Max. electrode consumption per station (lbs/day)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM=PM10 =PM2.5	Mn	Ni	Cr	PM=PM10 =PM2.5	Mn	Ni	Cr	
Sidewall (Stick) Welding (E7018 electrode) (EU20-B, former EU1-8)	24	3	72.00	0.0211	0.0009			1.519	0.065	0.000	0	0.065
Metal Inert Gas (MIG)(carbon steel) (insignificant activity)	15	3	72.00	0.0055	0.0005			0.248	0.023	0.000	0	0.023
Stick (E7018 electrode) (insignificant activity)	10	3	72.00	0.0211	0.0009			0.633	0.027	0.000	0	0.027
EMISSION TOTALS												
Potential Emissions lbs/hr								2.40	0.11	0.00	0.00	0.11
Potential Emissions lbs/day								57.59	2.74	0.00	0.00	2.74
Potential Emissions tons/year								10.51	0.50	0.00	0.00	0.50

Methodology:
*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations
Welding and Thermal Cutting
Plant 20-820C

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

PROCESS	Number of Stations	Max. electrode consumption per station		EMISSION FACTORS* (lb pollutant/lb electrode)					EMISSIONS (lbs/hr)					HAPS (lbs/hr)
WELDING		(lbs/hr)	(lb/day)	PM=PM10=PM2.5	Mn	Ni	Co	Cr	PM=PM10=PM2.5	Mn	Ni	Co	Cr	
Submerged Metal Arc (steel, E7018)[1] (EU20-820CA)	9	3	72	1.84E-02	1.03E-03	2.00E-06	1.00E-06	6.00E-06	0.497	2.78E-02	5.40E-05	2.70E-05	1.62E-04	2.81E-02
Metal Inert Gas (MIG)(aluminum, 4043)[2] (EU20-820CB)	16	3	72	0.0107	--	--	--	--	0.514	--	--	--	--	--
EMISSION TOTALS														
Potential Emissions lbs/hr									1.01	2.78E-02	5.40E-05	2.70E-05	1.62E-04	2.81E-02
Potential Emissions lbs/day									24.25	0.67	1.30E-03	6.48E-04	3.89E-03	0.67
Potential Emissions tons/year									4.43	0.12	2.37E-04	1.18E-04	7.10E-04	0.12

Notes:
1. *Emission factors from Tables 12.19-1 and 12.19-2, AP-42 (1/95)*
2. *Emission factor for MIG welding with 4043 aluminum wire from internal IDEM guidance*

Methodology:
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Description	ID	Number	Capacity (MMBtu/hr) Unit	Capacity (MMBtu/hr) Total
Air Makeup Unit	P820AM1	1	0.028	0.03
Thermo-cycler	P820TC1	1	0.58	0.58
Total				**0.61**

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
0.61	1020	5.2

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.00	0.02	0.02	0.00	0.26	0.01	0.22

*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

Hazardous Air Pollutants (HAPs)

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	5.5E-06	3.1E-06	2.0E-04	0.00	8.9E-06	**0.00**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.3E-06	2.9E-06	3.7E-06	9.9E-07	5.5E-06	**1.4E-05**
					Total HAPs	**0.00**
					Worst HAP	**0.00**

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: Emissions Calculations
Welding and Thermal Cutting
Plant 22-822 Welding Operations

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

PROCESS	Number of	Max. electrode	Max. electrode	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING	Stations	consumption per station (lbs/hr)	consumption per station (lbs/day)	PM=PM10=PM2.5	Mn	Ni	Cr	PM=PM10=PM2.5	Mn	Ni	Cr	
Metal Inert Gas (MIG)(carbon steel)	6	3.00	72.00	0.0055	0.0005			0.10	9.00E-03		0	9.00E-03
EMISSION TOTALS												
Potential Emissions lbs/hr								0.10	9.00E-03	0	0	9.00E-03
Potential Emissions lbs/day								2.38	0.22	0	0	0.22
Potential Emissions tons/year								0.43	3.94E-02	0	0	3.94E-02

Methodology:
*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lb

Appendix A: Emissions Calculations
from Surface Coating Operations
Plant 26-826 Inspection Area

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Material Name	Material ID Number	Application Method	Density (lbs/gal)	Weight % Volatiles (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Material Usage (gal/unit)	Production Capacity (units/yr)	Material Usage (gal/day)	VOC (lbs/gal) Less Water	VOC (lbs/gal)	Transfer Efficiency	VOC Emissions (lbs/hr)	VOC Emissions (lbs/day)	VOC Emissions (tons/yr)	Particulate Emissions (lbs/hr)	Particulate Emissions (tons/yr)	Particulate Emissions after Controls (tons/yr)
Solvents/Cleaners																			
ACETONE HI-MOISTURE	-	wipe	6.60	1.00	0	100.00%	0	0.10		1.92	6.60	6.60	100%	0.53	12.66	2.31	0	0	0
CLEANER	DX103	wipe	6.99	1.00	0	100.00%	0	0.02		0.38	6.99	6.99	100%	0.11	2.68	0.49	0	0	0
CLEANER WAX REMOVER	DX330	wipe	6.36	1.00	0	100.00%	0	0.04	7,000.00	0.77	6.36	6.36	100%	0.20	4.88	0.89	0	0	0
CLOPHANE WINDOW CLEANER	M028	aerosol	8.92	0.10	0	10.00%	0	0.10		1.92	0.89	0.89	100%	0.07	1.71	0.31	0	0	0
THINNER	DTL151	Not. Appl.	6.63	0.35	0	35.00%	0	0.10		1.92	2.32	2.32	100%	0.19	4.45	0.81	0	0	0
Foam Products																			
RESIN/SEALANT COMP "B"/FOAMSEAL	S7880	N.A Spray	9.84	0.29	0	29.00%	0	1.00		19.18	2.85	2.85	100%	2.28	54.73	9.99	0	0	0
SEALANT COMP "A"/FOAMSEAL BLUE	FSA-10	N.A Spray	10.34	0.05	0	5.00%	0	1.00	7,000.00	19.18	0.52	0.52	100%	0.41	9.92	1.81	0	0	0
SEALANT FILLER FOAM SPRAY/DASH	21551	N.A Spray	10.00	0.30	0	30.00%	0	0.03		0.48	3.00	3.00	100%	0.06	1.44	0.26	0	0	0
Sealants																			
SEALANT SILICONE BLACK/WHITE	795	aerosol	12.51	0.05	0	5.00%	0	0.10	7,000.00	1.92	0.63	0.63	75%	0.05	1.20	0.22	0.24	1.04	0.05
Undercoatings/Paints																			
UNDERCOATING AQUASEAL EMULSION	2000	N.A Spray	9.40	0.02	0	2.10%	0	2.50	7,000.00	47.95	0.20	0.20	100%	0.39	9.46	1.73	0	0	0
404335 RUB. UNDERCOAT SPRAY (PITT PEN)	-	N.A Spray	8.34	0.30	0	30.00%	0	0.01		0.19	2.50	2.50	100%	0.02	0.48	0.09	0	0	0

It is assumed that $PM=PM_{10}=PM_{2.5}$.

Material Usage (gal/day)	**95.79**	**Potential to Emit:**	**4.32**	**103.60**	**18.91**	**0.24**	**1.04**	**0.05**
Total not applied by dip, flow, roll, or brush	**3.84**							

Methodology

Weight % Organics = Weight % Volatiles (H20 & Organics) - Weight % Water
VOC (lbs/gal) Less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
VOC (lbs/gal) = Density (lb/gal) * Weight % Organics
VOC Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (1 yr/8760 hrs)
VOC Emissions (lbs/day) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/day)
VOC Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * Weight % Organics * (24 hrs/day) * (365 day/yr) * (1 ton/2000 lbs)
Particulate Emissions (lbs/hr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (1 yr/8760 hrs)
Particulate Emissions (tons/yr) = Material Usage (gal/unit) * Production Capacity (units/yr) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer Efficiency) * (8760 hrs/ yr) * (1 ton/ 2000 lbs)
Transfer Efficiency - Hand or Manual Application = 100%, Aerosol = 50%, HVLP = 75%

Appendix A: Emissions Calculations
VOC, Particulate, and HAPs (lead)
Plant 28-828 Wire Harness Assembly Operations (WHA)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Solder - Inorganic

Material	Material Usage Rate	Emission Factor	Potential to Emit of PM/PM10 and Lead		
	(lb/hr)	(lb/ton)	(lb/hr)	(lb/day)	(tons/yr)
SN60/PB40 Bar Solder	0.025	1.5	1.88E-05	4.50E-04	8.21E-05

PTE, PM/PM10/Lead (lb/hr) = Material Usage Rate (lb/hr) / 2,000 (lbs/ton) * Emission Factor (lb/ton)
PTE, PM/PM10/Lead (lb/day) = PTE, PM/PM10/Lead (lb/hr) * 24 hrs/day
PTE, PM/PM10/Lead (tons/yr) = PTE, PM/PM10/Lead (lb/hr) * 8,760 hrs/yr * 1 ton / 2,000 lbs

Flux - Organic

Material	Material Usage Rate	Density	VOC Content		PTE of VOC			HAP Content (Methanol CAS 67-56-1)		PTE of HAP (Methanol CAS 67-56-1)		
	(lb/hr)	(lb/gal)	(%)	(lb/gal)	(lb/hr)	(lb/day)	(tons/yr)	(%)	(lb/gal)	(lb/hr)	(lb/day)	(tons/yr)
1544 Rosin Soldering Flux	0.0039	7.76	49.7%	3.86	0.002	0.05	**8.49E-03**	2.5%	0.19	9.75E-05	2.34E-03	**4.27E-04**

	(lb/hr)	(lb/day)	(tons/yr)
PTE Total HAP(s) - Lead and Methanol	1.16E-04	2.79E-03	5.09E-04

PTE, VOC/HAP (lb/hr) = Material Usage Rate (lb/hr) * VOC/HAP Weight Content (%)
PTE, VOC/HAP (lb/day) = PTE, VOC/HAP (lb/hr) * 24 hr/day
PTE, VOC/HAP (tons/yr) = PTE, VOC/HAP (lb/hr) * 8,760 hrs/yr * 1 ton/ 2,000 lbs/ton

Notes: Lead emission factor from AP-42, Chapter 12.17 *Miscellaneous Lead Products*. Lead emissions are presumed to be equal to PM and PM10 emissions.

Appendix A: Emissions Calculations
From Surface Coating Operations
Plant 29-829 Diesel Service Center

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

1. VOC and PM

Material	Material ID Number	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempts	Weight % Organics	Volume % Water & Exempts	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per Gallon of Coating less Water & Exempts	Pounds VOC per gallon of coating	Potential VOC (lb/hour)	Potential VOC (lb/day)	Potential VOC (ton/yr)	Particulate Potential (ton/yr)	Gallons of Coating (gal/day)	Application Method	Transfer Efficiency
Adhesives																	
ADH BLACK WELD ABS CEMENT P773GL	30271	7.17	90.00%	0%	90.00%	0%	0.2000	0.03	6.45	6.45	0.04	0.93	0.17	0.00	0.14	brush	100%
ADH PARR/5942 CONSTRUCTION 40	5927	10.00	30.00%	0%	30.00%	0%	0.5000	0.03	3.00	3.00	0.05	1.08	0.20	0.00	0.36	tube	100%
ADH SIKAFLEX	221	9.90	5.99%	0%	5.99%	0%	0.5000	0.03	0.59	0.59	0.01	0.21	0.04	0.00	0.36	tube	100%
ADH ARMSTRONG MULTIPURPOSE	S-235	9.84	3.50%	0%	3.50%	0%	0.3000	0.03	0.34	0.34	0.00	0.07	0.01	0.00	0.22	wipe	100%
ADH SIKAFLEX	252	9.70	9.77%	0%	9.77%	0%	0.2000	0.03	0.95	0.95	0.01	0.14	0.02	0.00	0.14	tube	100%
ADH SPRAY STAPUT	97,351.00	10.00	95.00%	0%	95.00%	0%	0.4000	0.03	9.50	9.50	0.11	2.74	0.50	0.01	0.29	N.A Spray	75%
ADH TITEBOND	3120	9.67	0.10%	0%	0.10%	0%	0.5000	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.36	tube	100%
VULTRAFOAM 16-L-716 PART A	16L716A	10.26	0.00%	0%	0.00%	0%	1.0000	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.72	N.A Spray	100%
VULTRAFOAM 16-L-716 PART B	16L716B	9.01	0.00%	0%	0.00%	0%	1.0000	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.72	N.A Spray	100%
Paints																	
PAINT SPRAY BLACK BROMA	115/110	8.30	83.00%	0%	83.00%	0%	0.2000	0.03	6.89	6.89	0.04	0.99	0.18	0.01	0.14	Spray	75%
PRIMER FOURSEAL	18-9001	10.44	35.88%	0%	35.88%	0%	0.3000	0.03	3.75	3.75	0.03	0.81	0.15	0.07	0.22	Spray	75%
PRIMER FOURSEAL	7865	7.00	80.00%	0%	80.00%	0%	0.3000	0.03	5.60	5.60	0.05	1.21	0.22	0.01	0.22	Spray	75%
Caulks/Sealants																	
SEALANT FILLER FOAM SPRAY	21551	10.00	30.00%	0%	30.00%	0%	0.3000	0.03	3.00	3.00	0.03	0.65	0.12	0.00	0.22	N.A Spray	100%
SEALANT MANUS BOND ALL COLORS	75-AM/76-AM	22.50	12.00%	0%	12.00%	0%	0.5000	0.03	2.70	2.70	0.04	0.97	0.18	0.00	0.36	wipe	100%
SEALANT SILICONE BLACK	795	12.51	2.00%	0%	2.00%	0%	0.5000	0.03	0.25	0.25	0.00	0.09	0.02	0.20	0.36	aerosol	75%
SEALANT SILICONE CLEAR	999	8.50	5.00%	0%	5.00%	0%	0.2000	0.03	0.43	0.43	0.00	0.06	0.01	0.00	0.14	tube	100%
SEALANT SILICONE WHITE	795	12.51	2.00%	0%	2.00%	0%	0.4000	0.03	0.25	0.25	0.00	0.07	0.01	0.16	0.29	aerosol	75%
Solvents/Cleaners																	
ACETONE	--	6.60	100.00%	0%	100.00%	0%	0.5000	0.03	6.60	6.60	0.10	2.38	0.43	0.00	0.36	wipe	100%
CLEANER AFTA	4005	6.50	96.00%	0%	96.00%	0%	0.1000	0.03	6.24	6.24	0.02	0.45	0.08	0.00	0.07	wipe	100%
CLEANER CAMPER	38-8815	8.51	0.00%	0%	0.00%	0%	0.1000	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.07	wipe	100%
CLEANER NU PANEL DAP	14220	8.17	15.00%	0%	15.00%	0%	0.2000	0.03	1.23	1.23	0.01	0.18	0.03	0.00	0.14	wipe	100%
CLEANER/SOLVENT/ DEGREASER	BPK200	5.63	100.00%	0%	100.00%	0%	0.3000	0.03	5.63	5.63	0.05	1.22	0.22	0.00	0.22	wipe	100%
CLEANER SPRAYON GLASS	880	8.10	11.00%	0%	11.00%	0%	0.3000	0.03	0.89	0.89	0.01	0.19	0.04	0.07	0.22	spray	75%
LUBRICANT SPRAY SILICONE	MC-43	4.74	92.00%	0%	92.00%	0%	0.2000	0.03	4.36	4.36	0.03	0.63	0.11	0.00	0.14	aerosol	75%
SOLVENT FOR INSTANT ADHESIVES	76820	9.18	100.00%	0%	100.00%	0%	0.1000	0.03	9.18	9.18	0.03	0.66	0.12	0.00	0.07	wipe	100%
SOLVENT CLEAN SAFE	C-60/MC22	8.34	95.60%	0%	95.60%	0%	0.1000	0.03	7.97	7.97	0.02	0.57	0.10	0.00	0.07	wipe	100%
THINNER	DTL876	7.50	100.00%	0%	100.00%	0%	0.2200	0.03	7.50	7.50	0.05	1.19	0.22	0.00	0.16	Not. Appl.	100%
THINNER ALL PURPOSE	DTL16G	6.66	99.99%	0%	99.99%	0%	0.2200	0.03	6.66	6.66	0.04	1.05	0.19	0.00	0.16	Not. Appl.	100%
LACQUER THINNER	91665	7.01	100.00%	0%	100.00%	0%	0.4400	0.03	7.01	7.01	0.09	2.22	0.41	0.00	0.32	Not. Appl.	100%
										Total or Worst Case Potential to Emit:	**0.87**	**20.76**	**3.79**	**0.53**			

Gallons of Surface Coatings per Day Not Otherwise Exempted Under 326 IAC 6-3-1(b)(5)-(8) 2.22

Appendix A: Emissions Calculations
From Surface Coating Operations
Plant 854 Gasoline Service Center

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

1. VOC and PM

Material	Material ID Number	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempts	Weight % Organics	Volume % Water & Exempts	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per Gallon of Coating less Water & Exempts	Pounds VOC per gallon of coating	Potential VOC (lb/hour)	Potential VOC (lb/day)	Potential VOC (ton/yr)	Particulate Potential (ton/yr)	Gallons of Coating (gal/day)	Application Method	Transfer Efficiency
Adhesives																	
ADH BLACK WELD ABS CEMENT P773GL	30271	7.17	90.00%	0%	90.00%	0%	0.2000	0.03	6.45	6.45	0.04	0.88	0.16	0.00	0.14	brush	100%
ADH PARR/5942 CONSTRUCTION 40	5927	10.00	30.00%	0%	30.00%	0%	0.5000	0.03	3.00	3.00	0.04	1.03	0.19	0.00	0.34	tube	100%
ADH SIKAFLEX	221	9.90	5.99%	0%	5.99%	0%	0.5000	0.03	0.59	0.59	0.01	0.20	0.04	0.00	0.34	tube	100%
ADH ARMSTRONG MULTIPURPOSE	S-235	9.84	3.50%	0%	3.50%	0%	0.3000	0.03	0.34	0.34	0.00	0.07	0.01	0.00	0.21	wipe	100%
ADH SIKAFLEX	252	9.70	9.77%	0%	9.77%	0%	0.2000	0.03	0.95	0.95	0.01	0.13	0.02	0.00	0.14	tube	100%
ADH SPRAY STAPUT	97,351.00	10.00	95.00%	0%	95.00%	0%	0.4000	0.03	9.50	9.50	0.11	2.60	0.48	0.01	0.27	N.A Spray	75%
ADH TITEBOND	3120	9.67	0.10%	0%	0.10%	0%	0.5000	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.34	tube	100%
VULTRAFOAM 16-L-716 PART A	16L716A	10.26	0.00%	0%	0.00%	0%	1.0000	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.68	N.A Spray	100%
VULTRAFOAM 16-L-716 PART B	16L716B	9.01	0.00%	0%	0.00%	0%	1.0000	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.68	N.A Spray	100%
Paints																	
PAINT SPRAY BLACK BROMA	115/110	8.30	83.00%	0%	83.00%	0%	0.2000	0.03	6.89	6.89	0.04	0.94	0.17	0.01	0.14	Spray	75%
PRIMER FOURSEAL	18-9001	10.44	35.88%	0%	35.88%	0%	0.3000	0.03	3.75	3.75	0.03	0.77	0.14	0.06	0.21	Spray	75%
PRIMER FOURSEAL	7865	7.00	80.00%	0%	80.00%	0%	0.3000	0.03	5.60	5.60	0.05	1.15	0.21	0.01	0.21	Spray	75%
Caulks/Sealants																	
SEALANT FILLER FOAM SPRAY	21551	10.00	30.00%	0%	30.00%	0%	0.3000	0.03	3.00	3.00	0.03	0.62	0.11	0.00	0.21	N.A Spray	100%
SEALANT MANUS BOND ALL COLORS	75-AM/76-AM	22.50	12.00%	0%	12.00%	0%	0.5000	0.03	2.70	2.70	0.04	0.92	0.17	0.00	0.34	wipe	100%
SEALANT SILICONE BLACK	795	12.51	2.00%	0%	2.00%	0%	0.5000	0.03	0.25	0.25	0.00	0.09	0.02	0.19	0.34	aerosol	75%
SEALANT SILICONE CLEAR	999	8.50	5.00%	0%	5.00%	0%	0.2000	0.03	0.43	0.43	0.00	0.06	0.01	0.00	0.14	tube	100%
SEALANT SILICONE WHITE	795	12.51	2.00%	0%	2.00%	0%	0.4000	0.03	0.25	0.25	0.00	0.07	0.01	0.15	0.27	aerosol	75%
Solvents/Cleaners																	
ACETONE	--	6.60	100.00%	0%	100.00%	0%	0.5000	0.03	6.60	6.60	0.09	2.26	0.41	0.00	0.34	wipe	100%
CLEANER AFTA	4005	6.50	96.00%	0%	96.00%	0%	0.1000	0.03	6.24	6.24	0.02	0.43	0.08	0.00	0.07	wipe	100%
CLEANER CAMPER	38-8815	8.51	0.00%	0%	0.00%	0%	0.1000	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.07	wipe	100%
CLEANER NU PANEL DAP	14220	8.17	15.00%	0%	15.00%	0%	0.2000	0.03	1.23	1.23	0.01	0.17	0.03	0.00	0.14	wipe	100%
CLEANER/SOLVENT/ DEGREASER	BPK200	5.63	100.00%	0%	100.00%	0%	0.3000	0.03	5.63	5.63	0.05	1.16	0.21	0.00	0.21	wipe	100%
CLEANER SPRAYON GLASS	880	8.10	11.00%	0%	11.00%	0%	0.3000	0.03	0.89	0.89	0.01	0.18	0.03	0.07	0.21	spray	75%
LUBRICANT SPRAY SILICONE	MC-43	4.74	92.00%	0%	92.00%	0%	0.2000	0.03	4.36	4.36	0.02	0.60	0.11	0.00	0.14	aerosol	75%
SOLVENT FOR INSTANT ADHESIVES	76820	9.18	100.00%	0%	100.00%	0%	0.1000	0.03	9.18	9.18	0.03	0.63	0.11	0.00	0.07	wipe	100%
SOLVENT CLEAN SAFE	C-60/MC22	8.34	95.60%	0%	95.60%	0%	0.1000	0.03	7.97	7.97	0.02	0.55	0.10	0.00	0.07	wipe	100%
THINNER	DTL876	7.50	100.00%	0%	100.00%	0%	0.2200	0.03	7.50	7.50	0.05	1.13	0.21	0.00	0.15	Not. Appl.	100%
THINNER ALL PURPOSE	DTL16G	6.66	99.99%	0%	99.99%	0%	0.2200	0.03	6.66	6.66	0.04	1.00	0.18	0.00	0.15	Not. Appl.	100%
LACQUER THINNER	91665	7.01	100.00%	0%	100.00%	0%	0.4400	0.03	7.01	7.01	0.09	2.11	0.39	0.00	0.30	Not. Appl.	100%
Total or Worst Case Potential to Emit:											**0.82**	**19.75**	**3.60**	**0.51**			

Gallons of Surface Coatings per Day Not Otherwise Exempted Under 326 IAC 6-3-1(b)(5)-(8) **2.11**

Appendix A: Emissions Calculations
Welding and Thermal Cutting
Plant 32-7/8 Welding Operations

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	Max. electrode consumption per station (lbs/day)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING				PM=PM10=PM2.5	Mn	Ni	Cr	PM=PM10=PM2.5	Mn	Ni	Cr	
Metal Inert Gas (MIG)(carbon steel)	4	3.00	72.00	0.0055	0.0005			0.07	6.00E-03		0	6.00E-03
EMISSION TOTALS												
Potential Emissions lbs/hr								0.07	6.00E-03	0	0	6.00E-03
Potential Emissions lbs/day								1.58	0.14	0	0	0.14
Potential Emissions tons/year								0.29	2.63E-02	0	0	2.63E-02

Methodology:
*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)
Plant 35-833E (fire pump southeast of Plant 2-35)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Output Horsepower Rating (hp)	140.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	1,226,400

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	1.35	1.35	1.35	1.26	19.01	1.54	4.10

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	4.00E-03	1.76E-03	1.22E-03	1.68E-04	5.07E-03	3.29E-03	3.97E-04	7.21E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**1.66E-02**

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]

Appendix A: Emissions Calculations
Welding and Thermal Cutting
Plant 36-836 Welding Operations

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Metal Inert Gas (MIG)(carbon steel)	44	3	72	0.0055	0.0005			0.726	6.60E-02	0	0	6.60E-02
EMISSION TOTALS												
Potential Emissions lbs/hr								0.73	6.60E-02	0	0	6.60E-02
Potential Emissions lbs/day								17.42	1.58	0	0	1.58
Potential Emissions tons/year								3.18	0.29	0	0	0.29

Methodology:
*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations
Welding and Thermal Cutting
Plant 56-5 Welding and Thermal Cutting (P56-WC)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

PROCESS WELDING	Number of Stations	Max. electrode consumption per station (lbs/hr)	Max. electrode consumption per station (lbs/day)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM=PM10=PM2.5	Mn	Ni	Cr	PM=PM10=PM2.5	Mn	Ni	Cr	
Metal Inert Gas (MIG)(E70S)	5.00	3.00	72.00	5.20E-03	3.18E-04			7.80E-02	4.77E-03	0	0	4.77E-03
EMISSION TOTALS												
Potential Emissions lbs/hr								7.80E-02	4.77E-03	0	0	4.77E-03
Potential Emissions lbs/day								1.87	0.11	0	0	0.11
Potential Emissions tons/year								0.34	2.09E-02	0	0	2.09E-02

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations
From Surface Coating Operations
Plant 450 Assembly Operations (P450AO)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

1. VOC and PM

Manufacturer	Material	Density	Weight % Volatile (H20 & Organics)	Weight % Water & Exempts	Weight % Organics	Volume % Water & Exempts	Gal of Mat.	Maximum	Pounds VOC per Gallon of Coating less Water & Exempts	Pounds VOC per gallon of coating	Potential VOC			Particulate Potential	Gallons of Coating	Application Method	Transfer Efficiency	Substrate
		(lb/gal)					(gal/unit)	(unit/hour)			(lb/hour)	(lb/day)	(ton/yr)	(ton/yr)	(gal/day)			
Sealant	600 Clear	8.51	2.00%	0%	2.00%	0.00%	0.42	1.50	0.17	0.17	0.11	2.57	0.47	0.00	15.12	Manual	100%	Metal/Plastic
Sealant	600 Black	10.84	2.00%	0%	2.00%	0.00%	1.26	1.50	0.22	0.22	0.41	9.83	1.79	0.00	45.36	Manual	100%	Metal/Plastic
Sealant	600 White	11.18	3.00%	0%	3.00%	0.00%	0.61	1.50	0.34	0.34	0.31	7.37	1.34	0.00	21.96	Manual	100%	Metal/Plastic
Sealant	75-AM	14.18	0.53%	0%	0.53%	0.00%	7.71	1.50	0.08	0.08	0.87	20.86	3.81	0.00	277.56	Manual	100%	Metal/Plastic
Sealant	Glass/Metal Sealant	8.67	2.00%	0%	2.00%	0.00%	0.44	1.50	0.17	0.17	0.11	2.75	0.50	0.00	15.84	Manual	100%	Metal/Glass
Adhesive	Poly Foam	10.50	17.00%	0%	17.00%	0.00%	0.02	1.50	1.79	1.79	0.05	1.29	0.23	0.00	0.72	Manual	100%	Metal/Wood
Adhesive	3M Trim Adhesive	6.05	50.74%	23.50%	27.24%	21.51%	0.04	1.50	2.10	1.65	0.10	2.37	0.43	0.39	1.44	Aerosol	50%	Metal/Plastic
Adhesive	3M Fastbond	9.17	55.00%	51.60%	3.40%	56.74%	0.53	1.50	0.72	0.31	0.25	5.95	1.09	0.00	19.08	Flow	100%	Wood/Plastic
Adhesive	Sta-Put 2001M	5.87	75.70%	0%	75.70%	0.00%	0.08	1.50	4.44	4.44	0.53	12.80	2.34	0.00	2.88	Flow	100%	Wood/Plastic
Adhesive	Low VOC Adhesive	11.01	55.00%	51.21%	3.79%	67.60%	1.15	1.50	1.29	0.42	0.72	17.28	3.15	0.00	41.40	Manual	100%	Wood/Plastic
Coating	Spray Paint Gloss Black	5.80	90.92%	29.00%	61.92%	25.45%	0.04	1.50	4.82	3.59	0.22	5.17	0.94	0.07	1.44	Aerosol	50%	Wood/Plastic
Cleaner	Citrus Cleaner	9.37	100.00%	0%	100%	0.00%	0.03	1.50	9.37	9.37	0.42	10.12	1.85	0.00	1.08	Wiping	100%	NA
Cleaner	Glass Cleaner	8.17	99.90%	87.90%	12.00%	86.11%	0.03	1.50	7.06	0.98	0.04	1.06	0.19	0.00	1.08	Aerosol	50%	NA
Cleaner	Lacquer Thinner	7.07	100.00%	0%	100%	0.00%	0.02	1.50	7.07	7.07	0.21	5.09	0.93	0.00	0.72	Wiping	100%	NA
Lubricant	Silicone Lubricant	5.42	60.00%	0%	60.00%	0.00%	0.10	1.50	3.25	3.25	0.49	11.71	2.14	0.71	3.60	Aerosol	50%	Metal
										Total or Worst Case Potential to Emit:	**4.84**	**116.21**	**21.21**	**1.17**				
										Worst-case PTE when Coating Metal:		**58.74**	**10.72**					
										Worst-case PTE when Coating Substrates not Otherwise Regulated by 326 IAC 8:		**57.46**	**10.49**					
										Gallons of Surface Coatings per Day Not Otherwise Exempted Under 326 IAC 6-3-1(b)(5)-(8)					**2.88**			

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

HAZARDOUS AIR POLLUTANTS

Material	Material ID	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Methanol	Weight % Toluene	Weight % Xylene	Methanol Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
	600 Clear	8.51	0.42	1.50	0%	0%	0%	0	0	0	0
	600 Black	10.84	1.26	1.50	0%	0%	0%	0	0	0	0
	600 White	11.18	0.61	1.50	0%	0%	0%	0	0	0	0
	75-AM	14.18	7.71	1.50	0%	0%	0%	0	0	0	0
	Glass/Metal Sealant	8.67	0.44	1.50	0%	0%	0%	0	0	0	0
	3M Trim Adhesive	6.05	0.04	1.50	0%	0%	0%	0	0	0	0
	3M Fastbond	9.17	0.53	1.50	2.50%	3.00%	0%	0.80	0.96	0	1.76
	Sta-Put 2001M	5.87	0.08	1.50	0%	0%	0%	0	0	0	0
	Low VOC Adhesive	11.01	1.15	1.50	0%	0%	0%	0	0	0	0
	Spray Paint Gloss Black	5.8	0.04	1.50	0%	14.00%	0%	0	0.21	0	0.21
	Citrus Cleaner	9.37	0.03	1.50	0%	0%	0%	0	0	0	0
	Glass Cleaner	8.17	0.03	1.50	0%	0%	0%	0	0	0	0
	Lacquer Thinner	7.07	0.02	1.50	9.38%	66.28%	5.59%	0.09	0.62	0.05	0.75
	Silicone Lubricant	5.42	0.10	1.50	0%	0%	0%	0	0	0	0
Potential Emissions								**0.89**	**1.79**	**0.05**	**2.72**

METHODOLOGY
*Reactive Components - 1% of Available Content is Actually Estimated to be Emitted
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Plant 450 Woodworking (P450WW)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Unit ID	Control Device	Outlet Grain Loading	Maximum Air Flow Rate	Potential to Emit		Control Efficiency	Uncontrolled Emissions	
		(gr/dscf)	(dscfm)	(lb/hr)	(tons/yr)		(lb/hr)	(tons/yr)
P450WW	P450DC1	0.001	10000	8.57E-02	0.38	99%	8.57	37.54

Appendix A: Emissions Calculations
Plant 450 Miscellaneous Operations (P450MO)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Process	Description	Unit ID	Material Input (lb/hr)	Material Thickness (in)	Cutting Surface Thickness (in)	Process Rate (in/hr)	Material Loss (in^3/hr)	Material Density (lb/in^3)	Potential to Emit PM = PM_{10} = $PM_{2.5}$	
									(lb/hr)	(tons/yr)
Woodworking	Two (2) drill machines	DM1, DM2	200	0.125	0.25	50	1.56	0.026	4.07E-02	0.18
Woodworking	Two (2) band saws	BS1, BS2	200	0.125	0.0625	50	0.39	0.026	1.02E-02	4.46E-02
Aluminum cutting	One (1) band saw	BS3	100	0.125	0.0625	25	0.20	0.095	1.86E-02	8.17E-02
Aluminum cutting	Five (5) chop saws	CS1 - CS5	500	0.125	0.1875	125	2.93	0.095	0.28	1.23
Aluminum cutting	One (1) abrasive saw	AS1	100	0.125	0.1875	25	0.59	0.095	5.59E-02	0.25
Total										**1.77**

Material densities	(lb/ft^3)	(lb/in^3)
Wood (Southern yellow pine, dry)	45	0.026
Aluminum	165	0.095

Source: Table, pg 655, T. Glover, Pocket Ref, 3rd ed., Sequoia Publishing, Inc., Littleton, CO, 2008
(lb/in^3) = (lb/ft^3) / 1,728 (in^3/ft^3)

Methodology
Material Loss (in^3/hr) = Material Thickness (in) x (Cutting Surface Thickness (in) x Process Rate (in/hr)
Potential to Emit (lb/hr) = Material Loss (in^3/hr) x Material Density (lb/in^3)
PTE (tons/yr) = PTE (lb/hr) x 8,760 (hr/yr) / 2,000 (lb/ton)

Appendix A: Emissions Calculations
Plant 450 Natural Gas Combustion (P450NGC)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Description	Unit ID	Number of Units	Capacity (MMBtu/hr) Unit	Capacity (MMBtu/hr) Total
Space heater	OH1	1	0.12	0.12
Thermo-cycler	TC1, TC2	2	0.58	1.16
Air makeup unit	AM1	1	0.97	0.97
			Total	**2.25**

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
2.25	1020	19.3

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	1.84E-02	7.34E-02	7.34E-02	5.80E-03	0.97	5.31E-02	0.81

*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

Hazardous Air Pollutants (HAPs)

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.03E-05	1.16E-05	7.25E-04	1.74E-02	3.29E-05	**1.82E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	4.83E-06	1.06E-05	1.35E-05	3.67E-06	2.03E-05	**5.29E-05**
					Total HAPs	**1.82E-02**
					Worst HAP	**1.74E-02**

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: Emissions Calculations
Plant 450 Fuel Tanks

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation emission factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids were used. The total potential emission of VOC is as follows:

A. Gasoline Tank (GT1)

Gasoline Throughput = 25.00 kgal/yr

Volatile Organic Compounds (VOC)

Emission Source	Emission Factor (lb/kgal of throughput)*	PTE of VOC (tons/yr)
Filling storage tank (splash filling)	11.50	0.1438
Tank breathing and emptying	1.00	0.0125
Vehicle refueling (displaced losses - uncontrolled	11.00	0.1375
Spillage	0.70	0.0088
	Total	**0.303**

Methodology
The gasoline throughput was provided by the source.
*Emission Factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids (dated 6/08), Table 5.2-7
PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] * [Emission Factor (lb/kgal)] * [ton/2000 lb]

Hazardous Air Pollutants (HAPs)

Volatile Organic HAP	CAS#	Hazardous Air Pollutant (HAP) Content (vapor mass fraction)**	PTE of HAP (tons/yr)	
Benzene	71-43-2	0.37%	1.1E-03	
n-Hexane	110-54-3	0.34%	1.0E-03	
Toluene	108-88-3	0.40%	1.2E-03	
m-Xylenes	108-38-3	0.11%	3.3E-04	
		Total PTE of HAPs (tons/yr)	**3.7E-03**	
		PTE of Worst Single HAP (tons/yr)	**1.2E-03**	**(Toluene)**

Methodology
**Source: US EPA TANKS Version 4.09 program
PTE of Total HAPs (tons/yr) = [Total HAP Content (% by weight)] * [PTE of VOC (tons/yr)]
PTE of HAP (tons/yr) = [Hazardous Air Pollutant (HAP) Content (vapor mass fraction)] * [PTE of VOC (tons/yr)]

B. Diesel Fuel Tank (DT1)

Diesel Throughput = 25.01 kgal/yr

Volatile Organic Compounds (VOC)

Emission Source	Emission Factor (lb/kgal of throughput)*	PTE of VOC (tons/yr)
Filling storage tank (splash filling)	2.37E-02	2.97E-04
Tank breathing and emptying	2.07E-03	2.58E-05
Vehicle refueling (displaced losses - uncontrolled	2.27E-02	2.84E-04
Spillage	1.45E-03	1.81E-05
	Total	**6.25E-04**

Methodology
The diesel fuel throughput was provided by the source.
*Emission Factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids (dated 6/08), Table 5.2-7
scaled for the different liquid using Eqn 1, Chapter 5.2:

L_L = 12.46 (SPM/T)

Where L_L = loading loss, lb/kgal
S = a scaling factor from Table 5.2-1, in this case S = 1.45 for splash loading in dedicated normal service
P = true vapor pressure of the liquid, psia
M = molecular weight of vapors, lb/lb-mole
T = temperature of the bulk liquid, °R

So for any two liquids, $(L_1/L_2) = [12.46\ S_1P_1M_1/T_1] / [(12.46\ S_2P_2M_2/T_2]$

which reduces to $(L_1/L_2) = (P_1M_1) / (P_2M_2)$ because S and T are the same for both liquids

or $L_1 = (P_1M_1) / (P_2M_2) \times L_2$

and the gasoline emission factors from Table 5.2-7 are scaled for diesel fuel using representative physical properties from AP-42, Table 7.1-2:

Product	P, psia at 70°F	M lb/lb-mole
Distillate fuel oil No.2	0.0065	130
Gasoline (RVP10)	6.2	66

PTE of VOC (tons/yr) = Diesel Throughput (kgal/yr)] * [Emission Factor (lb/kgal)] * [ton/2000 lb]
HAP emissions from diesl fuel are considered negligible

Appendix: Emissions Calculations
from Surface Coating Operations
Plant 831 Laminators

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

1. VOC and PM

Process	Manufacturer	Material	Density	Weight % Volatile (H20 & Organics)	Weight % Water & Exempts	Weight % Organics	Volume % Water & Exempts	Volume % Non-Volatiles[1] (solids)	Gal of Mat.	Maximum	Gallons of Coating per Day	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential to Emit VOC[1,2]			Substrate
			(lb/gal)						(gal/unit)	(unit/hr)	(gal/day)			(lb/hr)	(lb/day)	(tons/yr)	
FCL1[3]	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	10.50	504.00	0	0	2.30E-07	5.53E-06	1.01E-06	Metal/Plastic
FCL2	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	10.50	504.00	0	0	2.30E-07	5.53E-06	1.01E-06	Metal/Plastic
FCL3[4]	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	3.50	168.00	0	0	7.68E-08	1.84E-06	3.36E-07	Metal/Plastic
Total of surface coating operations not determined to be insignificant for PSD														**5.38E-07**	**1.29E-05**	**2.35E-06**	
FCL4	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	10.50	504.00	0	0	2.30E-07	5.53E-06	1.01E-06	Metal/Plastic
FCL5	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	10.50	504.00	0	0	2.30E-07	5.53E-06	1.01E-06	Metal/Plastic
FCL6	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	10.50	504.00	0	0	2.30E-07	5.53E-06	1.01E-06	Metal/Plastic
FCL7	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	10.50	504.00	0	0	2.30E-07	5.53E-06	1.01E-06	Metal/Plastic
FCL8	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	10.50	504.00	0	0	2.30E-07	5.53E-06	1.01E-06	Metal/Plastic
FCL9	Henkel	Macroplast UR-8343	9.17	0%	0%	0%	0%	100%	2.00	10.50	504.00	0	0	2.30E-07	5.53E-06	1.01E-06	Metal/Plastic
Uncontrolled Potential VOC Emissions														**1.38E-06**	**3.32E-05**	**6.05E-06**	

Notes

1. VOC emissions taken to be equal to total HAP emissions because the SDS indicates that product does not contain VOC, see MDI Methodology, below.
2. Flowcoat-type application method does not generate PM so, pursuant to 326 IAC 6-3-1(b)(7), the processes are exempt from 326 IAC 6-3
3. FCL1 formerly identified as sidewall lamination operation exhausting to stack GV1-1
4. FCL3 formerly identified as sidewal lamination operation GV32-1 (formerly GV56-1, formerly GV54-1)

Methodology
PTE (lb/day) = PTE (lb/hr) x 24 (hr/day)
PTE (tons/yr) = PTE (lb/hr) x 8,760 (hr/yr) / 2,000 (lb/ton)

2. Hazardous Air Pollutants

Process	Manufacturer	Material	Density (Lb/Gal)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Weight % MDI[1]	MDI Emissions[2] (tons/yr)	Total HAP Emissions (ton/yr)
FCL1	Henkel	Macroplast UR-8343	9.17	2.00	10.50	30.00%	1.01E-06	1.01E-06
FCL2	Henkel	Macroplast UR-8343	9.17	2.00	10.50	30.00%	1.01E-06	1.01E-06
FCL3	Henkel	Macroplast UR-8343	9.17	2.00	3.50	30.00%	3.36E-07	3.36E-07
FCL4	Henkel	Macroplast UR-8343	9.17	2.00	10.50	30.00%	1.01E-06	1.01E-06
FCL5	Henkel	Macroplast UR-8343	9.17	2.00	10.50	30.00%	1.01E-06	1.01E-06
FCL6	Henkel	Macroplast UR-8343	9.17	2.00	10.50	30.00%	1.01E-06	1.01E-06
FCL7	Henkel	Macroplast UR-8343	9.17	2.00	10.50	30.00%	1.01E-06	1.01E-06
FCL8	Henkel	Macroplast UR-8343	9.17	2.00	10.50	30.00%	1.01E-06	1.01E-06
FCL9	Henkel	Macroplast UR-8343	9.17	2.00	10.50	30.00%	1.01E-06	1.01E-06
Uncontrolled Potential HAP Emissions							**8.41E-06**	**8.41E-06**

Notes:
1. MDI - methylene diphenyl diisocyanate (CASRN 101-68-8), does not include isomers, oligomers, or polymers.
2. Calculated MDI/HAP emissions based on Center for the Polyurethanes Industry methodology cited below.

METHODOLOGY
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

MDI Methodology
Pure MDI is a solid at room temperature and has an extremely low vapor pressure (1.0 x 10^{-5} mm Hg @ 298.2 K). MDI is also a highly reactive chemical which readily undergoes a chemical reaction to form a non volatile polyurethane polymer.
Therefore, the potential VOC/HAP emissions are estimated by engineering calculations utilizing physical and chemical properties and fundamental relationships, such as, Raoult's law, Henry's law, and the ideal gas law.
The following formula, obtained from the cited reference, is used to estimate the potential MDI evaporative loss in a lamination process;

Appendix D, Equation 7.0, Calculating Emissions From Open Processes

$W = 25.4 * VP_{MDI} * (M_W / T_{proc}) * u^{0.78} * S_A * t_{TF} * K_{MDI}$

Where: W =	Evaporative Losses, g/day			
VP_{MDI} =	MDI Vapor Pressure at process temperature, atm			
=	1.023E-05	mm Hg, Table A-1, Reporting Guidelines		
=	1.346E-08	atm		
M_W =	Molecular Weight			
=	250.26	g/g-mole		
T_{proc} =	Process Temperature (Kelvin)			
=	77	°F (ambient conditions)		
=	298	K		
u =	Airflow speed, m/s			
=	100	ft/min (assumed worst case for the work area)		
=	0.51	m/s		
S_A =	Exposed Surface Area, m^2/day			
	worst-case:	336	ft^2/unit, based on maximum panel dimensions of 8 ft x 42 ft	
	FCL1, FCL2	FCL3	FCL4-FCL-6	
	10.50	3.50	10.50	unit/hr
	3528	1176	3528	ft^2/hr
S_A =	84,672	28,224	84,672	ft^2/day
=	7,866	2,622	7,866	m^2/day
t_{TF} =	Tack Free Time, sec			
=	5.00	sec (default value)		
K_{MDI} =	Vapor Pressure Adjustment Factor for MDI Concentration			
=	0.377	interpolated from Table B-1, Reporting Guidelines, 77°F		

	FCL1, FCL2	FCL3	FCL4-FCL-6	
Then W =	2.51E-03	8.36E-04	2.51E-03	g/day
=	1.04E-04	3.48E-05	1.04E-04	g/hr
MDI PTE =	2.30E-07	7.68E-08	2.30E-07	lb/hr
=	1.01E-06	3.36E-07	1.01E-06	tons/yr

METHODOLOGY REFERENCE
MDI Emissions Reporting Guidelines for the Polyurethanes Industry, American Chemistry Council, Center for the Polyurethanes Industry, Washington, DC, May 2012

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)
Plant 831 Emergency Generator (EG2)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Output Horsepower Rating (hp)	480.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	240,000

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.26	0.26	0.26	0.25	3.72	0.30	0.80

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	7.84E-04	3.44E-04	2.39E-04	3.28E-05	9.91E-04	6.44E-04	7.77E-05	1.41E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**3.25E-03**

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]

Appendix A: Emission Calculations
Plant 831 Emergency Generator (EG2)
Diesel Fuel Tank (EG2DT)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Minor Source Modification No.: 039-47470-00017
Reviewer: Madison Spahn

References are to Chapter 7, AP-42 (11/06) except as noted

Indianapolis Meteorological Data (Tbl 7.1-7)

Average daily maximum ambient temperature, T_{AX} = 62.0 °F
Average daily minimum ambient temperature, T_{AN} = 42.2 °F
Daily total insolation, I = 1165 Btu/ft^2-day
average atmospheric pressure, P_A = 14.33 psia

from Table 7.1-6		color	condition
α =	0.68	med gray	good

description provided by the source

Horizontal tank, capacity and dimensions provided by the source

V = 450 gal   L = 8.5 ft   D = 3 ft

Storage Losses (breathing losses)

Daily average ambient temperature, T_{AA} = 512.1 °R, Eqn 1-27, $T_{AA} = (T_{AX} + T_{AN})/2$
Liquid bulk temperature, T_B = 515.2 °R, Eqn 1-28, $T_B = T_{AA} + 6\alpha - 1$
Daily average liquid surface temperature, T_{LA} = 520.1 °R, Eqn 1-26, $T_{LA} = 0.44\,T_{AA} + 0.56\,T_B + 0.0079\,\alpha\,I$

Vapor molecular weight, M = 130 lb/lb-mole, Tbl 7.1-2, No 2 distillate fuel oil
Throughput, Q = 193596 gal/yr = 4609.4 bbl/yr *(note 1 bbl = 42 gal)*

A = 12.3 vapor pressure equation (Eqn 1-24) coefficients,
B = 9029 regression of data in Tbl 7.1-2, No 2 distillate fuel oil

Vapor pressure at daily average liquid surface temperature, P_{VA} = 0.01 psia, Eqn 1-24, Ch 7

Effective diameter, D_E = 5.70 ft   Eqn 1-13, $D_E = ((LD)/(\pi/4))^{1/2}$
Effective height, H_E = 2.36 ft   Eqn 1-14, $H_E = \pi D/4$
Vapor space outage, H_{VO} = 1.18 ft $H_E/2$, explanation of terms, Eqn 1-15

Maximum and minimum liquid surface temperature and vapor pressure				
T_{LX} =	530.0 °R	T_{LN} =	510.2 °R	Eqn 1-26 applied at T_{AX} and T_{AN}, note 5 to Eqn 1-7
P_{VX} =	0.01 psia	P_{VN} =	0.00 psia	Eqn 1-24 applied at T_{AX} and T_{AN}, note 5 to Eqn 1-7

Daily vapor pressure range, ΔP_V = 0.00 psia, Eqn 1-9, $\Delta P_V = P_{VX} - P_{VN}$
Daily vapor temperature range, ΔT_V = 36.4 °R, eqn 1-8, $\Delta T_V = 0.72\,(T_{AX} - T_{AN}) + 0.028\,\alpha\,I$
Breather vent pressure setting range, ΔP_B = 0.06 psia, assumed, see note 3 to Eqn 1-7

Vapor space expansion factor, K_E = 0.07 Eqn 1-7, $K_E = (\Delta T_V/T_{LA}) + (\Delta P_V - \Delta P_B)/(P_A - P_{VA})$
Vented vapor saturation factor, K_S = 1.00 Eqn 1-20, $K_S = 1 / (1 + 0.053\,P_{VA}\,H_{VO})$
Stock vapor densiity, W_V = 0.0001 lb/ft^3, Eqn 1-21, $W_V = (M_V\,P_{VA}) / (R\,T_{LA})$
R = ideal gas law constant, 10.73 (psia ft^3)/(lb-mole ºR), Table 1-9, Perry's Chemical Engineers' Handbook, 6th ed.

Storage loss, $L_S = 365\,K_E\,(\pi D_E^2/4)\,H_{VO}\,K_S\,W_V$, Eqn 1-4

L_S = 0.11 lb/yr

Working Losses

turnovers = 430 per year, N = Q (gal/yr) / V (gal) *(note Eqn 1-30 gives N in terms of Q (bbl/yr) and V_{LX} (ft^3), presumed the same as this equation)*
Working loss turnover (saturation) factor, K_N = 0.24 Fig 7.1-18, explanation of terms, Eqn 1-29
Working loss product factor, K_P = 1 organic liquids other than crude oil, explanation of terms, Eqn 1-29

Working loss, $L_W = 0.0010\,M_V\,P_{VA}\,Q\,K_N\,K_P$, Eqn 1-29

L_W = 0.91 lb/yr, Eqn 1-29, AP-42 Ch 7

Total Losses

Total losses, $L_T = L_S + L_W$, Eqn 1-1

Potential to Emit		
	lb/yr	tons/yr
L_T =	1.02	5.09E-04

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Plant 831

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

			Capacity (MMBtu/hr)	
Description	ID	Number	Unit	Total
Thermo-cycler	P831TC1 - P831TC5	5	0.72	3.60
Thermo-cycler	P831TC6	1	0.58	0.58
Furnace	P831H1	1	0.075	0.08
Furnace	P831H2, P831H3	2	0.09	0.18
Furnace	P831H4	1	0.11	0.11
Total				**4.55**

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
4.55	1020	39.0

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.04	0.15	0.15	0.01	1.95	0.11	1.64

*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

Hazardous Air Pollutants (HAPs)

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	4.1E-05	2.3E-05	1.5E-03	0.04	6.6E-05	**0.04**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	9.8E-06	2.1E-05	2.7E-05	7.4E-06	4.1E-05	**1.1E-04**
					Total HAPs	**0.04**
					Worst HAP	**0.04**

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
Plant 450 Woodworking Operations - (P450WW2 - P450WW6)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Woodworking Operations

Process ID(s)	Equipment ID(s)	Baghouse ID(s)	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM/PM10/PM2.5 Emissions (grains/hr)	PM/PM10/PM2.5 Emission Rate before Controls (lb/hr)	PM/PM10/PM2.5 Emission Rate before Controls (tons/yr)	PM/PM10/PM2.5 Emission Rate after Controls (lb/hr)	PM/PM10/PM2.5 Emission Rate after Controls (tons/yr)
P450WW2	P450-8	INTDC21	99.0%	0.00003	650	1	0.02	0.08	0.000	0.001
P450WW3	P450-20	INTDC22	99.0%	0.00003	650	1	0.02	0.08	0.000	0.001
P450WW4	P450-11	INTDC23	99.0%	0.00003	650	1	0.02	0.08	0.000	0.001
P450WW5	P450-1	INTDC24	99.0%	0.00003	650	1	0.02	0.08	0.000	0.001
P450WW6	P450-RT1	INTDC25	99.0%	0.00020	650	8	0.11	0.49	0.001	0.005
Totals							**0.19**	**0.82**	**0.002**	**0.008**

Methodology
Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (cub. ft./min.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)
Emission Rate in lbs/hr (before controls) = Emission Rate (after controls)(lbs/hr) / (1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)
PM/PM10/PM2.5 Emissions (grains/hr) = Grain Loading (gr/acf) * Air Flow (acf/min) * 60 (min/hr)
PM/PM10/PM2.5 Emissions (lbs/hr) = PM/PM10/PM2.5 Emissions (grains/hr)* (1 lb/7000 grains)
PM/PM10/PM2.5 Emissions (tons/yr) = PM/PM10/PM2.5 Emissions (lbs/hr) * 8760 hrs/yr *2000 lbs/ton

* The baghouse controlling emissions for the woodworking operation have been determined by IDEM to be integral to the process. Therefore only the potential emissions after controls are considered when determining the permit level.

Actual Grain Loading Determination for Portable Dust Collectors

Process	Units	ID	Dust Collector ID	Material Input (lb/hour)	Cutting Surface Thickness (in)	Material Thickness (in)	Process Rate (in/hr)	Material Loss (in^3/hr)	Material Density (lb/in^3)	Material Loss Emissions (lb/hr)	Material Loss Emissions (ton/year)
P450WW2	One (1) Cut Off Saw	P450-8	INTDC21	250	0.125	0.25	25	0.78	0.024	0.02	0.08
P450WW3	One (1) Cut Off Saw	P450-20	INTDC22	250	0.125	0.25	25	0.78	0.024	0.02	0.08
P450WW4	One (1) Cut Off Saw	P450-11	INTDC23	250	0.125	0.25	25	0.78	0.024	0.02	0.08
P450WW5	One (1) Cut Off Saw	P450-1	INTDC24	250	0.125	0.25	25	0.78	0.024	0.02	0.08
P450WW6	One (1) Double Edge Router	P450-RT1	INTDC25	1000	0.25	0.375	50	4.69	0.024	0.11	0.49
									Total Emissions	**0.19**	**0.82**

Methodology
Wood Material Density (lb/in^3) = 42 lb/ft^3 / 1728 in^3/ft^3
Material Loss (in^3/hr) = Surface thickness (in) * Material Thickness (in) * Process Rate (in/hr)
Material Loss Emissions (lb/hr) = Material Loss (in3/hr) * Material Density(lb/in3)
Emissions (ton/year) = Material Loss Emissions (lb/hr) * 8760 (hr/year) / 2000 (lb/ton)
AC 6-3-2 limit = $E = 4.10\ P^{0.67}$
E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Appendix A: Emission Calculations
Woodworking Operation
Plant 831 Woodworking Operations - (P831WW1 - P831WW5)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Woodworking Operations

Process ID(s)	Equipment ID(s)	Baghouse ID(s)	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM/PM10/PM2.5 Emissions (grains/hr)	PM/PM10/PM2.5 Emission Rate before Controls (lb/hr)	PM/PM10/PM2.5 Emission Rate before Controls (tons/yr)	PM/PM10/PM2.5 Emission Rate after Controls (lb/hr)	PM/PM10/PM2.5 Emission Rate after Controls (tons/yr)
P831WW1	P831-5	INTDC15	99.0%	0.00002	1,280	1	0.02	0.08	0.000	0.001
P831WW2	P831-4	INTDC16	99.0%	0.00002	1,280	1	0.02	0.08	0.000	0.001
P831WW3	P831-3	INTDC17	99.0%	0.00002	1,280	1	0.02	0.08	0.000	0.001
P831WW4	P831-1	INTDC18	99.0%	0.00002	1,280	1	0.02	0.08	0.000	0.001
P831WW5	P831-TS1	INTDC19	99.0%	0.00003	1,280	2	0.03	0.12	0.000	0.001
Totals							**0.10**	**0.45**	**0.001**	**0.005**

Methodology
Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (cub. ft./min.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)
Emission Rate in lbs/hr (before controls) = Emission Rate (after controls)(lbs/hr) / (1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)
PM/PM10/PM2.5 Emissions (grains/hr) = Grain Loading (gr/acf) * Air Flow (acf/min) * 60 (min/hr)
PM/PM10/PM2.5 Emissions (lbs/hr) = PM/PM10/PM2.5 Emissions (grains/hr)* (1 lb/7000 grains)
PM/PM10/PM2.5 Emissions (tons/yr) = PM/PM10/PM2.5 Emissions (lbs/hr) * 8760 hrs/yr *2000 lbs/ton

* The baghouse controlling emissions for the woodworking operation have been determined by IDEM to be integral to the process. Therefore only the potential emissions after controls are considered when determining the permit level.

Actual Grain Loading Determination for Portable Dust Collectors

Process	Units	ID	Dust Collector ID	Material Input (lb/hour)	Cutting Surface Thickness (in)	Material Thickness (in)	Process Rate (in/hr)	Material Loss (in^3/hr)	Material Density (lb/in^3)	Material Loss Emissions (lb/hr)	Material Loss Emissions (ton/year)
P831WW1	One (1) Cut Off Saw	P831-5	INTDC15	500	0.125	0.25	25	0.78	0.024	0.02	0.08
P831WW2	One (1) Cut Off Saw	P831-4	INTDC16	500	0.125	0.25	25	0.78	0.024	0.02	0.08
P831WW3	One (1) Cut Off Saw	P831-3	INTDC17	500	0.125	0.25	25	0.78	0.024	0.02	0.08
P831WW4	One (1) Cut Off Saw	P831-1	INTDC18	500	0.125	0.25	25	0.78	0.024	0.02	0.08
P831WW5	One (1) Table Saw	P831-TS1	INTDC19	500	0.125	0.375	25	1.17	0.024	0.03	0.12
									Total Emissions	**0.10**	**0.45**

Methodology
Wood Material Density (lb/in^3) = 42 lb/ft^3 / 1728 in^3/ft^3
Material Loss (in^3/hr) = Surface thickness (in) * Material Thickness (in) * Process Rate (in/hr)
Material Loss Emissions (lb/hr) = Material Loss (in3/hr) * Material Density(lb/in3)
Emissions (ton/year) = Material Loss Emissions (lb/hr) * 8760 (hr/year) / 2000 (lb/ton)
AC 6-3-2 limit = $E = 4.10\ P^{0.67}$
E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Appendix A: Emission Calculations
Plant 831 Routing Operation - Roof/Floor/Sidewall Routing

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Process	ID	Material Input (lb/hour)	Cutting Surface Thickness (in)	Material Thickness (in)	Process Rate (in/hr)	Material Loss (in^3/hr)	*Percent PM <100 u	*Material Density (lb/in^3)	Total Material Loss (lb/hr)	PM Loss < 100u (lb/hr)	PM/PM10/PM2.5 Emissions (ton/year)
Sidewall Routing	P831SWR1	1,200	0.1875	0.190	3,040.67	108.32	5.40%	0.056	6.07	0.33	1.43
Sidewall Routing	P831SWR2	1,200	0.1875	0.190	3,040.67	108.32	5.40%	0.056	6.07	0.33	1.43
Sidewall Routing	P831SWR3	1,200	0.1875	0.190	3,040.67	108.32	5.40%	0.056	6.07	0.33	1.43
Roof Routing	P831RR1	3,640	0.1875	0.240	3,378.00	152.01	1.30%	0.052	7.90	0.10	0.45
Floor Routing	P831FR1	1,860	0.1875	0.481	687.00	61.96	1.30%	0.052	3.22	0.04	0.18
Floor Routing	P831FR2	1,860	0.1875	0.481	687.00	61.96	1.30%	0.052	3.22	0.04	0.18
								Total Emissions	**32.55**	**1.17**	**5.12**

Methodology
*Material Density (lb/in^3) and Weight % PM <100u Based Upon Laboratory Testing
Material Loss (in^3/hr) = Surface thickness (in) * Material Thickness (in) * Process Rate (in/hr)
Total Material Loss (lb/hr) = Material Loss (in3/hr) * Material Density(lb/in3)
PM Loss < 100u (lb/hr) = Total Material Loss (lb/hr) * Percent PM <100 u (%)
Emissions (ton/year) = Material Loss Emissions (lb/hr) * 8760 (hr/year) / 2000 (lb/ton)
PM= PM10 & PM2.5
AER - 326 IAC 6-3-2 limit = $E = 4.10\ P^{0.67}$
E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Appendix A: Emission Calculations
Plant 36-836 Miscellaneous Woodworking Operation - (MC-P836)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Miscellaneous Woodworking Operations

Process	Units	ID	Material Input (lb/hour)	Cutting Surface Thickness (in)	Material Thickness (in)	Process Rate (in/hr)	Material Loss (in^3/hr)	Material Density (lb/in^3)	Material Loss Emissions (lb/hr)	Material Loss Emissions (ton/year)
MC-836	One (1) Cut Off Saw	P836-COS1	250	0.125	0.25	25	0.78	0.024	0.02	0.08
								Total Emissions	**0.02**	**0.08**

Methodology
Wood Material Density (lb/in^3) = 42 lb/ft^3 / 1728 in^3/ft^3
Material Loss (in^3/hr) = Surface thickness (in) * Material Thickness (in) * Process Rate (in/hr)
Material Loss Emissions (lb/hr) = Material Loss (in3/hr) * Material Density(lb/in3)
Emissions (ton/year) = Material Loss Emissions (lb/hr) * 8760 (hr/year) / 2000 (lb/ton)
AC 6-3-2 limit = $E = 4.10 P^{0.67}$
E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Appendix A: Emission Calculations
Plant 36-836 Woodworking Operation - (P836WW1)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Woodworking Operations

Process ID(s)	Equipment ID(s)	Baghouse ID(s)	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM/PM10/PM2.5 Emissions (grains/hr)	PM/PM10/PM2.5 Emission Rate before Controls (lb/hr)	PM/PM10/PM2.5 Emission Rate before Controls (tons/yr)	PM/PM10/PM2.5 Emission Rate after Controls (lb/hr)	PM/PM10/PM2.5 Emission Rate after Controls (tons/yr)
P836WW1	P836-TS1	INTDC20	99.0%	0.00003	1,200	2	0.03	0.12	0.0003	0.001
Totals							**0.03**	**0.12**	**0.0003**	**0.001**

Methodology
Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (cub. ft./min.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)
Emission Rate in lbs/hr (before controls) = Emission Rate (after controls)(lbs/hr) / (1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)
PM/PM10/PM2.5 Emissions (grains/hr) = Grain Loading (gr/acf) * Air Flow (acf/min) * 60 (min/hr)
PM/PM10/PM2.5 Emissions (lbs/hr) = PM/PM10/PM2.5 Emissions (grains/hr)* (1 lb/7000 grains)
PM/PM10/PM2.5 Emissions (tons/yr) = PM/PM10/PM2.5 Emissions (lbs/hr) * 8760 hrs/yr *2000 lbs/ton

* The baghouse controlling emissions for the woodworking operation have been determined by IDEM to be integral to the process. Therefore only the potential emissions after controls are considered when determining the permit level.

Actual Grain Loading Determination for Portable Dust Collectors

Process	Units	ID	Dust Collector ID	Material Input (lb/hour)	Cutting Surface Thickness (in)	Material Thickness (in)	Process Rate (in/hr)	Material Loss (in^3/hr)	Material Density (lb/in^3)	Material Loss Emissions (lb/hr)	Material Loss Emissions (ton/year)
P836WW1	One (1) Table Saw	P836-TS1	INTDC20	500	0.125	0.375	25	1.17	0.024	0.03	0.12
									Total Emissions	**0.03**	**0.12**

Methodology
Wood Material Density (lb/in^3) = 42 lb/ft^3 / 1728 in^3/ft^3
Material Loss (in^3/hr) = Surface thickness (in) * Material Thickness (in) * Process Rate (in/hr)
Material Loss Emissions (lb/hr) = Material Loss (in3/hr) * Material Density(lb/in3)
Emissions (ton/year) = Material Loss Emissions (lb/hr) * 8760 (hr/year) / 2000 (lb/ton)
AC 6-3-2 limit = $E = 4.10\ P^{0.67}$
E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Appendix A: Emission Calculations
Plant 1-850 Miscellaneous Woodworking Operation - (MC-P850)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Miscellaneous Woodworking Operations

Process	Units	ID	Material Input (lb/hour)	Cutting Surface Thickness (in)	Material Thickness (in)	Process Rate (in/hr)	Material Loss (in^3/hr)	Material Density (lb/in^3)	Material Loss Emissions (lb/hr)	Material Loss Emissions (ton/year)
MC-850	One (1) Double Head Drill Press	P850-DHD1	500	0.125	0.125	50	0.78	0.024	0.02	0.08
	One (1) Single Head Drill Press	P850-SHD1	500	0.125	0.125	50	0.78	0.024	0.02	0.08
								Total Emissions	**0.04**	**0.16**

Methodology

Wood Material Density (lb/in^3) = 42 lb/ft^3 / 1728 in^3/ft^3

Material Loss (in^3/hr) = Surface thickness (in) * Material Thickness (in) * Process Rate (in/hr)

Material Loss Emissions (lb/hr) = Material Loss (in3/hr) * Material Density(lb/in3)

Emissions (ton/year) = Material Loss Emissions (lb/hr) * 8760 (hr/year) / 2000 (lb/ton)

AC 6-3-2 limit = $E = 4.10\ P^{0.67}$

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

Appendix A: Emission Calculations
Plant 1-850 Woodworking Operations - (P850WW2 - P850WW14)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Woodworking Operations

Process ID(s)	Equipment ID(s)	Baghouse ID(s)	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM/PM10/PM2.5 Emissions (grains/hr)	PM/PM10/PM2.5 Emission Rate before Controls (lb/hr)	PM/PM10/PM2.5 Emission Rate before Controls (tons/yr)	PM/PM10/PM2.5 Emission Rate after Controls (lb/hr)	PM/PM10/PM2.5 Emission Rate after Controls (tons/yr)
P850WW2	P850-57, P850-50	INTDC2	99.0%	0.00004	1,200	3	0.04	0.16	0.000	0.002
P850WW3	P850-59, P850-BS1	INTDC3	99.0%	0.00004	1,200	3	0.04	0.16	0.000	0.002
P850WW4	P850-46	INTDC4	99.0%	0.00003	650	1	0.02	0.08	0.000	0.001
P850WW5	P850-39	INTDC5	99.0%	0.00003	650	1	0.02	0.08	0.000	0.001
P850WW6	P850-41	INTDC6	99.0%	0.00005	1,200	4	0.06	0.25	0.001	0.002
P850WW7	P850-35, P850-60	INTDC7	99.0%	0.00004	1,200	3	0.04	0.16	0.000	0.002
P850WW8	P850-43	INTDC8	99.0%	0.00007	650	3	0.04	0.16	0.000	0.002
P850WW9	P850-27	INTDC9	99.0%	0.00007	650	3	0.04	0.16	0.000	0.002
P850WW10	P850-6	INTDC10	99.0%	0.00007	650	3	0.04	0.16	0.000	0.002
P850WW11	P850-TS1	INTDC11	99.0%	0.00010	650	4	0.06	0.25	0.001	0.002
P850WW12	P850-48	INTDC12	99.0%	0.00007	650	3	0.04	0.16	0.000	0.002
P850WW13	P850-47	INTDC13	99.0%	0.00007	650	3	0.04	0.16	0.000	0.002
P850WW14	P850-COS1	INTDC14	99.0%	0.00003	650	1	0.02	0.08	0.000	0.001
Totals							**0.47**	**2.05**	**0.005**	**0.021**

Methodology
Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (cub. ft./min.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)
Emission Rate in lbs/hr (before controls) = Emission Rate (after controls)(lbs/hr) / (1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)
PM/PM10/PM2.5 Emissions (grains/hr) = Grain Loading (gr/acf) * Air Flow (acf/min) * 60 (min/hr)
PM/PM10/PM2.5 Emissions (lbs/hr) = PM/PM10/PM2.5 Emissions (grains/hr)* (1 lb/7000 grains)
PM/PM10/PM2.5 Emissions (tons/yr) = PM/PM10/PM2.5 Emissions (lbs/hr) * 8760 hrs/yr *2000 lbs/ton

* The baghouse controlling emissions for the woodworking operation have been determined by IDEM to be integral to the process. Therefore only the potential emissions after controls are considered when determining the permit level.

Actual Grain Loading Determination for Portable Dust Collectors

Process	Units	ID	Dust Collector ID	Material Input (lb/hour)	Cutting Surface Thickness (in)	Material Thickness (in)	Process Rate (in/hr)	Material Loss (in^3/hr)	Material Density (lb/in^3)	Material Loss Emissions (lb/hr)	Material Loss Emissions (ton/year)
P850WW2	One (1) Cut Off Saw and One (1) Table Saw	P850-57, P850-50	INTDC2	500	0.125	0.25	50	1.56	0.024	0.04	0.16
P850WW3	One (1) Cut Off Saw and One (1) Belt Sander	P850-59, P850-BS1	INTDC3	500	0.125	0.25	50	1.56	0.024	0.04	0.16
P850WW4	One (1) Cut off saw	P850-46	INTDC4	250	0.125	0.25	25	0.78	0.024	0.02	0.08
P850WW5	One (1) Cut off saw	P850-39	INTDC5	250	0.125	0.25	25	0.78	0.024	0.02	0.08
P850WW6	One (1) Table Saw	P850-41	INTDC6	500	0.125	0.375	50	2.34	0.024	0.06	0.25
P850WW7	Two (2) Cut Off Saws	P850-35, P850-60	INTDC7	500	0.125	0.25	50	1.56	0.024	0.04	0.16
P850WW8	One (1) Cut off saw	P850-43	INTDC8	250	0.125	0.25	50	1.56	0.024	0.04	0.16
P850WW9	One (1) Cut Off Saw	P850-27	INTDC9	250	0.125	0.25	50	1.56	0.024	0.04	0.16
P850WW10	One (1) Cut Off Saw	P850-6	INTDC10	250	0.125	0.25	50	1.56	0.024	0.04	0.16
P850WW11	One (1) Table Saw	P850-TS1	INTDC11	250	0.125	0.375	50	2.34	0.024	0.06	0.25
P850WW12	One (1) Cut Off Saw	P850-48	INTDC12	250	0.125	0.25	50	1.56	0.024	0.04	0.16
P850WW13	One (1) Cut Off Saw	P850-47	INTDC13	250	0.125	0.25	50	1.56	0.024	0.04	0.16
P850WW14	One (1) Cut Off Saw	P850-COS1	INTDC14	250	0.125	0.25	25	0.78	0.024	0.02	0.08
									Total Emissions	**0.47**	**2.05**

Methodology
Wood Material Density (lb/in^3) = 42 lb/ft^3 / 1728 in^3/ft^3
Material Loss (in^3/hr) = Surface thickness (in) * Material Thickness (in) * Process Rate (in/hr)
Material Loss Emissions (lb/hr) = Material Loss (in3/hr) * Material Density(lb/in3)
Emissions (ton/year) = Material Loss Emissions (lb/hr) * 8760 (hr/year) / 2000 (lb/ton)
AC 6-3-2 limit = $E = 4.10 P^{0.67}$
E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Plant 1-850 Touch Up Painting (P850TP)

Company Name: Thor Wakarusa, LLC
Source Address: 606 Nelson's Parkway, Wakarusa, Indiana 46573
Permit No.: 039-47470-00017
Reviewer: Madison Spahn

Plant 850 Touchup Painting

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum (gal/day)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	Transfer Efficiency	Substrate	Application Method
Touch Up Painting																	
BC200 Black	7.58	97.00%	0.00%	97.00%	0.00%	0.0750	1.50	2.70	7.35	7.35	0.83	19.85	3.62	0.03	75%	Plastic	HVLP
UR50 Reducer	7.29	100.00%	0.00%	100.00%	0.00%	0.0375	1.50	1.35	7.29	7.29	0.41	9.84	1.80	0.00	75%	Plastic	HVLP
BCH2 Hardener	7.99	64.00%	0.00%	64.00%	0.00%	0.0125	1.50	0.45	5.11	5.11	0.10	2.30	0.42	0.06	75%	Plastic	HVLP
Clean Up Solvents																	
Acetone	6.61	100.00%	100.00%	0.00%	100.00%	0.0250	1.50	0.90	0.00	0.00	0.00	0.00	0.00	0.00	100%	Cleaner	Manual
							Total	5.40	**Total Potential to Emit**		**1.33**	**31.99**	**5.84**	**0.09**			

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Ethylbenzene	Weight % Isocyanates	Xylene (ton/yr)	Toluene (ton/yr)	Ethylbenzene (ton/yr)	Isocyanates (ton/yr)	Total HAP (ton/yr)
Touch Up Painting												
BC200 Black	7.58	0.0750	1.50	20.00%	0.00%	5.00%	0.00%	0.75	0.00	0.19	0.00	0.93
UR50 Reducer	7.29	0.0375	1.50	0.00%	0.00%	0.20%	0.00%	0.00	0.00	0.00	0.00	0.00
BCH2 Hardener	7.99	0.0125	1.50	0.00%	20.00%	0.00%	1.00%	0.00	0.13	0.00	0.007	0.14
Acetone	6.61	0.0250	1.50	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
							Totals	**0.75**	**0.13**	**0.19**	**0.007**	**1.08**

METHODOLOGY
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

IDEM

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

June 27, 2024

Darrick Parker
Thor Wakarusa LLC
601 E Beardsley Ave
Elkhart, IN 46514

Re: Public Notice
Thor Wakarusa, LLC
Permit Level: TV Renewal
Permit Number: 039-47470-00017

Dear Darrick Parker:

Enclosed is the Notice of 30-Day Period for Public Comment for your draft air permit.

Our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person. The Notice of 30-Day Period for Public Comment has also been sent to the OAQ Permits Branch Interested Parties List and, if applicable, your Consultant/Agent and/or Responsible Official/Authorized Individual.

The preliminary findings, including the draft permit, technical support document, emission calculations, and other supporting documents, **are available electronically at**:

IDEM's online searchable database: http://www.in.gov/apps/idem/caats/ . Choose Search Option **by Permit Number**, then enter permit 47470

and

IDEM's Virtual File Cabinet (VFC): https://www.IN.gov/idem. Enter VFC in the search box, then search for permit documents using a variety of criteria, such as Program area, date range, permit #, Agency Interest Number, or Source ID.

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/public-notices/

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 Wakarusa-Olive & Harrison Township Public Library, 124 N. Elkhart St. in Wakarusa, IN 46573. 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 draft permit 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 Madison Spahn, 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 3031 or dial (317) 233-3031.

Sincerely,

Lisa Gaines

Lisa Gaines
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover Letter access via website 8/10/2020

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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

June 27, 2024

To: Wakarusa-Olive & Harrison Township Public Library

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: Thor Wakarusa, LLC
Permit Number: 039-47470-00017

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

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Brian C. Rockensuess
Commissioner

Notice of Public Comment

June 27, 2024
Thor Wakarusa, LLC
039-47470-00017

To: Interested Parties:

You are receiving this notice because you asked to be on IDEM's notification list for this company and/or county; or because your property is nearby the company being permitted; or because you represent a local/regional government entity. The Indiana Department of Environmental Management, Office of Air Quality, invites your comments on the draft air permit.

Enclosed is a Notice of Public Comment, which has posted on IDEM's Public Notice website at https://www.in.gov/idem/public-notices/.

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 would like to be removed from the Air Permits mailing list, please contact Joanne Smiddie-Brush with the Air Permits Administration Section at 1-800-451-6027, ext. 3-0185 or via e-mail at JBRUSH@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 Interested Parties Cover Letter 10/13/2023

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Commissioner

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

June 27, 2024

A 30-day public comment period has been initiated for:

Permit Number: **039-47470-00017**
Applicant Name: **Thor Wakarusa, LLC**
Location: **Wakarusa, Elkhart 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

IDEM Staff	LGAINES 6/27/2024 Thor Wakarusa LLC 039-47470-00017 (draft)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶ Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Darrick Parker Thor Wakarusa LLC 601 E Beardsley Ave Elkhart IN 46514 (Source CAATS)									
2		Trevor Gasper Vice President Thor Wakarusa LLC 601 E Beardsley Ave Elkhart IN 46514 *(RO CAATS)*									
3		Elkhart City Council and Mayors Office 229 S Second St Elkhart IN 46516 *(Local Official)*									
4		Elkhart County Health Department 608 Oakland Ave Elkhart IN 46516 *(Health Department)*									
5		Wakarusa Town Council and Town Manager PO Box 474 Wakarusa IN 46573 *(Local Official)*									
6		Wakarusa-Olive & Harrison Township Library 124 N Elkhart St, PO Box 485 Wakarusa IN 46573-0485 *(Library)*									
7		Elkhart County Board of Commissioners 117 N 2nd St Goshen IN 46526 *(Local Official)*									
8		Mr. Kevin Parks D & B Environmental Services Inc 401 Lincoln Way W Osceola IN 46561 *(Consultant)*									
9		~~Harold and Wilma Good Library - Goshen College 1700 S Main St Goshen IN 46526 *(Library)*~~									
10		Jeri Seely The Mail-Journal PO Box 188 Milford IN 46542 *(Affected Party)*									
11		Mr. Roger Schneider The Goshen News 114 S Main St Goshen IN 46526 *(Affected Party)*									
12		Nibco, Inc. 701 Eisenhower Drive Goshen IN 46526 *(Affected Party)*									
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