

General provisions reference	Applicable to subpart JJJJ	Explanation
§ 63.10(a)	Yes.	
§ 63.10(b)(1)–(3)	Yes	§ 63.10(b)(2)(i) through (v) only apply if you use a capture and control system.
§ 63.10(c)(1)	Yes.	
§ 63.10(c)(2)–(4)	No	Reserved.
§ 63.10(c)(5)–(8)	Yes.	
§ 63.10(c)(9)	No	Reserved.
§ 63.10(c)(10)–(15)	Yes.	
§ 63.10(d)(1)–(2)	Yes.	
§ 63.10(d)(3)	No	Subpart JJJJ does not require opacity and visible emissions observations.
§ 63.10(d)(4)–(5)	Yes.	
§ 63.10(e)(1)–(2)	Yes	Provisions for COMS are not applicable.
§ 63.10(e)(3)–(4)	No.	
§ 63.10(f)	Yes.	
§ 63.11	No.	
§ 63.12	Yes.	
§ 63.13	Yes.	
§ 63.14	Yes	Subpart JJJJ includes provisions for alternative ASME test methods that are incorporated by reference.
§ 63.15	Yes.	

Subpart KKKK—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans

SOURCE: 68 FR 64446, Nov. 13, 2003, unless otherwise noted.

WHAT THIS SUBPART COVERS

§ 63.3480 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for metal can surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.3481 Am I subject to this subpart?

(a) Except as provided in paragraph (c) of this section, the source category to which this subpart applies is surface coating of metal cans and ends (including decorative tins) and metal crowns and closures. It includes the subcategories listed in paragraphs (a)(1) through (4) of this section. Surface coating is the application of coatings to a substrate using, for example, spray guns or dip tanks.

(1) *One- and two-piece draw and iron can body coating.* The one- and two-piece draw and iron can body coating subcategory includes all coating processes involved in the manufacture of

can bodies by the draw and iron process. This subcategory includes three distinct coating type segments reflecting the coatings appropriate for cans with different end uses. Those are two-piece beverage can body coatings, two-piece food can body coatings, and one-piece aerosol can body coatings.

(2) *Sheetcoating.* The sheetcoating subcategory includes all of the flat metal sheetcoating operations associated with the manufacture of three-piece cans, decorative tins, crowns, and closures.

(3) *Three-piece can body assembly coating.* The three-piece can body assembly coating subcategory includes all of the coating processes involved in the assembly of three-piece metal can bodies. The subcategory includes five distinct coating type segments reflecting the coatings appropriate for cans with different end uses. Those are inside spray on food cans, aseptic side seam stripes on food cans, nonaseptic side seam stripes on food cans, side seam stripes on general line nonfood cans, and side seam stripes on aerosol nonfood cans.

(4) *End coating.* The end coating subcategory includes the application of end seal compounds and repair spray coatings to metal can ends. This subcategory includes three distinct coating type segments reflecting the end seal compounds and repair sprays appropriate for can ends with different end uses. Those are aseptic end seal

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compounds, nonaseptic end seal compounds, and repair spray coatings.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.3482, that uses 5,700 liters (1,500 gallons (gal)) per year, or more, of coatings in the source category 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 hazardous air pollutants (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, considering controls, 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.

(c) This subpart does not apply to surface coating that meets the criteria of paragraphs (c)(1) through (5) of this section.

(1) Surface coating conducted at a source that uses only coatings, thinners, and cleaning materials that contain no organic HAP, as determined according to § 63.3521(a).

(2) Surface coating subject to any other NESHAP in this part as of November 13, 2003.

(3) Surface coating and cleaning activities that use research or laboratory equipment or that are part of janitorial, building, and facility maintenance operations.

(4) Surface coating of continuous metal coil that may subsequently be used in manufacturing cans. Subpart SSSS of this part covers surface coating performed on a continuous metal coil substrate.

(5) Surface coating of metal pails, buckets, and drums. Future subpart MMMM of this part will cover surface coating of all miscellaneous metal parts and products not explicitly covered by another subpart.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1383, Jan. 6, 2006]

§ 63.3482 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of metal cans and ends (including decorative tins), or metal crowns or closures:

(1) All coating operations as defined in § 63.3561;

(2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; 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 January 15, 2003 by installing new coating equipment. New coating equipment is equipment used to perform metal can surface coating at a facility where no metal can surface coating was previously performed and the construction is of a completely new metal can surface coating source where previously no metal can surface coating source had existed.

(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.

§ 63.3483 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 §§ 63.3520, 63.3530, 63.3540, and 63.3550.

(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 November 13, 2003, the compliance date is November 13, 2003.

(2) If the initial startup of your new or reconstructed affected source occurs after November 13, 2003, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is November 13, 2006.

(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 November 13, 2003 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 November 13, 2006, whichever is later.

(d) You must meet the notification requirements in § 63.3510 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

§ 63.3490 What emission limits must I meet?

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 1 to this subpart that apply to you during each 12-month compliance period, determined according to the requirements in § 63.3521, § 63.3531, or § 63.3541; or if you control emissions with an emissions control system using the control efficiency/outlet concentration option as specified in § 63.3491(d), you must reduce organic HAP emissions to the atmosphere to no more than the limit(s) in Table 3 to this subpart, determined according to the requirements of § 63.3551. If you perform

surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 2 to this subpart that apply to you during each 12-month compliance period, determined according to the requirements in § 63.3521, § 63.3531, or § 63.3541; or if you control emissions with an emissions control system using the control efficiency/outlet concentration option as specified in § 63.3491(d), you must reduce organic HAP emissions to the atmosphere to no more than the limit(s) in Table 3 to this subpart, determined according to the requirements of § 63.3551. If you perform surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

(c) If you perform surface coating in different subcategories as described in § 63.3481(a)(1) through (4), then the coating operations in each subcategory constitute a separate affected source, and you must conduct separate compliance demonstrations for each applicable subcategory and coating type emission limit in paragraphs (a) and (b) of this section and reflect those separate determinations in notifications, reports, and records required by §§ 63.3510, 63.3511, and 63.3512, respectively.

§ 63.3491 What are my options for meeting the emission limits?

You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in § 63.3490. To make that determination, you must use at least one of the four compliance options listed in paragraphs (a) through (d) of this section. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a

group. You may use different compliance options for different coating operations or at different times on the same coating operation. 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 that switch as required by § 63.3512(c), and you must report it in the next semiannual compliance report required in § 63.3511.

(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 § 63.3490, and that each thinner used contains no organic HAP. You must meet all the requirements of §§ 63.3520, 63.3521, and 63.3522 to demonstrate compliance with the emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings and thinners 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 § 63.3490, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§ 63.3530, 63.3531, and 63.3532 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings and thinners used in the coating operation(s) and the emission 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 § 63.3490, 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) used for purposes of complying with this subpart meet the operating limits required in § 63.3492, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3541(i), and that you meet the work practice standards required in § 63.3493.

You must meet all the requirements of §§ 63.3540 through 63.3547 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

(d) *Control efficiency/outlet concentration option.* Demonstrate that, based on the emission reductions achieved by emission capture systems and add-on controls, total HAP emissions measured as total hydrocarbon (THC) are reduced by 95 percent or greater for existing sources, or 97 percent or greater for new or reconstructed sources, or that outlet THC emissions are less than or equal to 20 parts per million by volume, dry basis (ppmvd). If you use this compliance option, you must have a capture device that meets EPA Method 204 of 40 CFR part 51, appendix M criteria for a permanent total enclosure (PTE). You must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with this subpart meet the operating limits required in § 63.3492, and that you meet the work practice standards required in § 63.3493. You must meet all the requirements of §§ 63.3550 through 63.3557 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§ 63.3492 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 or the control efficiency/outlet concentration option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to § 63.3541(i), you must meet the operating limits specified in Table 4 to this subpart. Those operating limits apply to the emission capture and control systems for the coating operation(s) used for purposes of complying with this subpart. You must establish the operating limits during the initial performance test according to the requirements in § 63.3546 or § 63.3556. New

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and reconstructed sources must meet the operating limits at all times after they have been established during the performance test, and existing sources must meet the operating limits at all times after the compliance date.

(c) If you use an add-on control device other than those listed in Table 4 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).

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1383, Jan. 6, 2006]

§ 63.3493 What work practice standards must I meet?

(a) For any coating operation(s) for 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 or the control efficiency/outlet concentration option to comply with the emission limitations, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation(s) for which you use those options; 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, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels 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 (U.S. EPA), may choose to grant you permission to use an alternative to the work practice standards in this section.

GENERAL COMPLIANCE REQUIREMENTS

§ 63.3500 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 § 63.3491(a) and (b), must be in compliance with the applicable emission limit in § 63.3490.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in § 63.3491(c), or the control efficiency/outlet concentration option, as specified in § 63.3491(d), 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 § 63.3490 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 § 63.3492 at all times, except for those for which you use a solvent recovery system and conduct liquid-liquid material balances according to § 63.3541(i). The operating limits apply only to capture systems and control devices used for purposes of complying with this subpart.

(iii) The coating operation(s) must be in compliance with the work practice standards in § 63.3493 at all times.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes

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of complying with this subpart, according to the provisions in § 63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device for purposes of complying with this subpart, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3). The plan must address 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.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 20464, Apr. 20, 2006]

§ 63.3501 What parts of the General Provisions apply to me?

Table 5 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

NOTIFICATIONS, REPORTS, AND RECORDS

§ 63.3510 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 or 120 days after November 13, 2003, whichever is later. For an existing affected source, you must submit the Initial Notification no later than November 13, 2004.

(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 § 63.3520, § 63.3530, § 63.3540, or § 63.3550 that applies to your affected source. The Notification of Compliance Status must contain the information specified in

paragraphs (c)(1) through (9) 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 § 63.3520, § 63.3530, § 63.3540, or § 63.3550 that applies to your affected source.

(4) Identification of the compliance option or options specified in § 63.3491 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 § 63.3490, include all the calculations you used to determine the kilogram (kg) organic HAP emitted per liter of 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 can 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 § 63.3521(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating and for one thinner.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating and one thinner, 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 § 63.3531.

(8) The calculation of kg organic HAP emitted per liter of 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 § 63.3521.

(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, 1A, 1B, 2, and 3, respectively, of § 63.3531, or Equation 4 of § 63.3531, if applicable.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1, 1A, and 1B of § 63.3531; the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3531; 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 1C of § 63.3541, and Equations 2, 3, 3A, and 3B of § 63.3541, as applicable; the calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3541, as applicable; and the calculation of the 12-month organic HAP emission rate, using the applicable equation, Equation 5 of § 63.3541 or Equation 4 of § 63.3531.

(9) For the emission rate with add-on controls option or the control efficiency/outlet concentration option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section. 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 § 63.3541(i).

(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 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 § 63.3493.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1383, Jan. 6, 2006]

§ 63.3511 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 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 § 63.3520, § 63.3530,

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§ 63.3540, or § 63.3550 that applies to your affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the 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 (v) 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 § 63.3491 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 you used each option.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§ 63.3491(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations, operating limits, or work practice standards in §§ 63.3490, 63.3492, and 63.3493 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 or the control efficiency/outlet concentration 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 emission limit in § 63.3490, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the emission limit, each thinner used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content (using Equation 1 of § 63.3521) 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 coating and thinner 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) A statement of the cause of each deviation.

(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 § 63.3490, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iii) 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 § 63.3490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must provide the calculations for Equations 1, 1A, 1B, 2, and 3 in § 63.3531 or Equation 4 in § 63.3531, if applicable; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3531(e)(3). You do not need to submit background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

(iii) A statement of the cause of each deviation.

(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 an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiv) of this section. That includes periods of startup, shutdown, and malfunction during which deviations occurred.

(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 § 63.3490.

(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 and thinners used each month, using Equations 1, 1A, and 1B of § 63.3531 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3531(e)(3); the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3531; 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 1C of § 63.3541, and Equations 2, 3, 3A, and 3B of § 63.3541, as applicable; the calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3541; and the calculation of the 12-month organic HAP emission rate, using Equation 5 of § 63.3541, or Equation 4 in § 63.3531, if applicable. 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 started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date, time, and duration that each CPMS was out of control, including the information in § 63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 4 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 startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration of each deviation from an operating limit in Table 4 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) A breakdown of the total duration of the deviations from the operating limits in Table 4 to 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.

(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) For each deviation from the work practice standards, a description of the deviation; the date and time period of the deviation; and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(8) *Deviations: control efficiency/outlet concentration option.* If you used the control efficiency/outlet concentration option, and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(8)(i) through (xii) of this section. This in-

cludes periods of startup, shutdown, and malfunction during which deviations occurred.

(i) The date and time that each malfunction started and stopped.

(ii) A brief description of the CPMS.

(iii) The date of the latest certification or audit of the CPMS.

(iv) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(v) The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8).

(vi) The date and time period of each deviation from an operating limit in Table 4 to this subpart; date and time of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(vii) A summary of the total duration of each deviation from an operating limit in Table 4 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.

(viii) A breakdown of the total duration of the deviations from the operating limits in Table 4 to 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.

(ix) 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.

(x) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xi) 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.

(xi) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option or the control efficiency/outlet concentration 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) *Startup, shutdown, malfunction reports.* If you used the emission rate with add-on controls option or the control efficiency/outlet concentration option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your SSMP, you must include the information specified in § 63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your SSMP, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the SSMP.

(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).

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1383, Jan. 6, 2006]

§ 63.3512 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 the 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 documenta-

tion supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating and thinner 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 at which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 1 of § 63.3521.

(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 and thinners used each month, using Equations 1, 1A, 1B, and 2 of § 63.3531 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3531(e)(3); the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3531; and the calculation of each 12-month organic HAP emission rate, using Equation 3 of § 63.3531, or Equation 4 in § 63.3531, if applicable.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (vi) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1, 1A, and 1B of

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§ 63.3531 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3531(e)(3).

(ii) The calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3531.

(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 1C of § 63.3541, and Equations 2, 3, 3A, and 3B of § 63.3541, as applicable.

(iv) The calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3541.

(v) The calculation of each 12-month organic HAP emission rate, using Equation 5 of § 63.3541.

(vi) The OSEL calculation, if applicable, using Equation 4 of § 63.3531.

(5) For the control efficiency/outlet concentration option, records of the measurements made by the CPMS used to demonstrate compliance. For any coating operation(s) for which you use this option, you do not have to keep the records specified in paragraphs (d) through (g) of this section.

(d) A record of the name and volume of each coating and thinner used during each compliance period.

(e) A record of the mass fraction of organic HAP for each coating and thinner used during each compliance period.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) A record of the density for each coating used during each compliance period; and, 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 thinner used during each compliance period.

(h) If you use an allowance in Equation 1 of § 63.3531 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to § 63.3531(e)(3) or otherwise managed in accordance with applicable Federal and State waste management regulations, you must keep records of the information speci-

fied in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF or other applicable waste management location to which you sent waste materials for which you use an allowance in Equation 1 of § 63.3531, 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 § 63.3531.

(3) The methodology used in accordance with § 63.3531(e)(3) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF or other applicable waste management location each month and the methodology to determine the mass of organic HAP contained in these waste materials. That 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) You must keep records of the date, time, and duration of each deviation.

(j) If you use the emission rate with add-on controls option or the control efficiency/outlet concentration option, you must keep the records specified in paragraphs (j)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 4 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 § 63.3544(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 §§ 63.3543 and 63.3544(b) through (e) including the records specified in paragraphs (j)(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 F of appendix M to 40 CFR part 51 for each material used in the coating operation and the total TVH for all materials used during each capture efficiency test run including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure (TTE) or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a TTE 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 C of appendix M to 40 CFR part 51 at the inlet to the add-on control device including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the TTE or building enclosure during each capture efficiency test run as measured by Method 204D or E of appendix M to 40 CFR part 51 including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a TTE 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 § 63.3544(e) if applicable.

(6) The records specified in paragraphs (j)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.3545 or § 63.3555.

(i) Records of each add-on control device performance test conducted according to § 63.3543 or § 63.3553 and § 63.3545 or § 63.3555.

(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 § 63.3546 or § 63.3556 and to document compliance with the operating limits as specified in Table 4 to this subpart.

(8) A record of the work practice plan required by § 63.3493 and documentation that you are implementing the plan on a continuous basis.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1383, Jan. 6, 2006]

§ 63.3513 In what form and for how long must I keep my records?

(a) Your records must be kept in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) 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.

COMPLIANCE REQUIREMENTS FOR THE
COMPLIANT MATERIAL OPTION

§ 63.3520 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 § 63.3521. The initial compliance period begins on the applicable compliance date specified in § 63.3483 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. The initial compliance demonstration includes the calculations according to § 63.3521 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 § 63.3490 and you used no thinners that contained organic HAP.

§ 63.3521 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 within a subcategory or coating type segment, or for all the coating operations within a subcategory or coating type segment. You must use either the emission rate without add-on controls option, the emission rate with add-on controls option, or the control efficiency/outlet concentration option for any coating operation in the affected source for which you do not use that 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 limit in § 63.3490 and must use no thinner 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 §§ 63.3492 and 63.3493, respectively. You must conduct a separate initial compliance demonstration for each one and two-piece draw and iron can body coating, sheetcoating, three-piece can body assembly coating, and end coating affected source. You must meet all the requirements of this section for the coating operation or group of coating

operations using this option. Use the procedures in this section on each coating and thinner in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration (*e.g.*, mixing or thinning). Do not include any coatings or thinners used on coating operations for which you use the emission rate without add-on controls option, the emission rate with add-on controls option, or the control efficiency/outlet concentration option. You do not need to redetermine the HAP content of coatings or thinners that have been reclaimed onsite and reused in the coating operation(s) 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. All required calculations and compliance demonstrations may be performed with either metric or English units.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating and thinner used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (*e.g.*, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60)*. For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP.

(3) *Alternative method*. You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material*. You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation, a regulated source can 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 those solvent blends listed in Table 6 or 7 to this subpart. If you use the tables, you must use the values in Table 6 to this subpart for all solvent blends that match Table 6 entries, and you may only use Table 7 to this subpart if the solvent blends in the materials you use do not match any of the solvent blends in Table 6 and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311

(40 CFR part 63, appendix A) test indicate higher values than those listed on Table 6 or 7 to this subpart, the Method 311 results will take precedence.

(b) *Determine the volume fraction of coating solids for each coating*. You must determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material as specified in paragraphs (b)(1) and (2) 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)(2) of this section, the test results will take precedence.

(1) *ASTM Method D2697-86 (Reapproved 1998) or D6093-97*. You may use ASTM Method D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" (incorporated by reference, see § 63.14), or D6093-97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (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. If these values cannot be determined using these methods, the owner/operator may submit an alternative technique for determining the values for approval by the Administrator.

(2) *Information from the supplier or manufacturer of the material*. You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(c) *Determine the density of each coating*. Determine the density of each coating used during the compliance period from test results using ASTM Method D1475-90 or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475-90 test results and the supplier's or manufacturer's information, the test results will take precedence.

(d) *Calculate the organic HAP content of each coating*. Calculate the organic

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HAP content, kg organic HAP per liter coating solids, of each coating used during the compliance period, using Equation 1 of this section.

H_c = (D_c)(W_c) / V_s (Eq. 1)

Where:

- H_c = Organic HAP content of the coating, kg organic HAP per liter coating solids.
D_c = Density of coating, kg coating per liter 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 coating solids per liter coating, determined according to paragraph (b) of this section.

(e) Compliance demonstration. The organic HAP content for each coating used during the initial compliance period, determined using Equation 1 of this section, must be less than or equal to the applicable emission limit in § 63.3490 and each thinner 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 §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required in § 63.3510, 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 § 63.3490, and you used no thinners that contained organic HAP, determined according to paragraph (a) of this section.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1383, Jan. 6, 2006]

§ 63.3522 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 § 63.3521, exceeds the ap-

plicable emission limit in § 63.3490 and use no thinner that contains organic HAP, determined according to § 63.3521(a). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3520 is the end of a compliance period consisting of that month and the preceding 11 months.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating or thinner 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 §§ 63.3510(b)(6) and 63.3511(a)(5).

(c) As part of each semiannual compliance report required by § 63.3511, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the emission limitations set forth in § 63.3490, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coating for which the organic HAP content exceeded the applicable emission limit in § 63.3490, and you used no thinner that contained organic HAP, as determined according to § 63.3521(a).

(d) You must maintain records as specified in §§ 63.3512 and 63.3513.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1383, Jan. 6, 2006]

COMPLIANCE REQUIREMENTS FOR THE EMISSION RATE WITHOUT ADD-ON CONTROLS OPTION

§ 63.3530 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 § 63.3531. The initial compliance period begins on the applicable compliance date specified in § 63.3483 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 a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the calculations according to § 63.3531 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 § 63.3490.

§ 63.3531 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any coating operation, for any group of coating operations within a subcategory or coating type segment, or for all of the coating operations within a subcategory or coating type segment. You must use either the compliant material option, the emission rate with add-on controls option, or the control efficiency/outlet concentration option for any coating operation in the affected source for which you do not use this option. If you use the alternative overall emission limit for a subcategory according to paragraph (i) of this section to demonstrate compliance, however, you must include all coating operations in all coating type segments in the subcategory to determine compliance with the overall limit. 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 § 63.3490, but is not required to meet the operating limits or work practice standards in §§ 63.3492 and 63.3493, respectively. You must conduct a separate initial compliance demonstration for each one and two-piece draw and iron can body coating, sheetcoating, three-piece can body assembly coating, and end coating affected source. You must meet all the requirements of this section to demonstrate initial compliance with the applicable emission limit in § 63.3490 for the coating operation(s). When calculating the organic HAP emission rate according to this section, do not in-

clude any coatings or thinners used on coating operations for which you use the compliant material option, the emission rate with add-on controls option, or the control efficiency/outlet concentration option or coating operations in a different affected source in a different subcategory. Use the procedures in this section on each coating and thinner in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration (*e.g.*, mixing or thinning). You do not need to redetermine the mass of organic HAP in coatings or thinners that have been reclaimed onsite and reused in the coating operation(s) for which you use the emission rate without add-on controls option. All required calculations and compliance demonstrations may be performed with either metric or English units.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating and thinner used during each month according to the requirements in § 63.3521(a).

(b) *Determine the volume fraction of coating solids for each coating.* Determine the volume fraction of coating solids for each coating used during each month according to the requirements in § 63.3521(b).

(c) *Determine the density of each material.* Determine the density of each coating and thinner used during each month from test results using ASTM Method D1475-90, 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 Method D1475-90 test results and such other information sources, the test results will take precedence.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating and thinner used during each month by measurement or usage records.

(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 and thinners used during each month minus the organic HAP in certain

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waste materials. Calculate it using Equation 1 of this section.

$$H_e = A + B - R_w \quad (\text{Eq. 1})$$

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 used during the month, kg, as calculated in Equation 1B of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF or other applicable waste management location for treatment or disposal during the month, kg, determined according to paragraph (e)(3) 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 mass of organic HAP in the coatings used during the month using Equation 1A of this section.

$$A = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$\text{Vol}_{c,i}$ = 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.

m = Number of different coatings used during the month.

(2) Calculate the mass of organic HAP in the thinners used during the month using Equation 1B of this section.

$$B = \sum_{j=1}^n (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 1B})$$

Where:

B = Total mass of organic HAP in the thinners used during the month, kg.

$\text{Vol}_{t,j}$ = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used during the month.

(3) 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 or other applicable waste management location in Equation 1 of this section, then you must determine it according to paragraphs (e)(3)(i) through (iv) of this section.

(i) You may include in the determination only waste materials that are generated by coating operations for which you use Equation 1 of this section

and that will be treated or disposed of by a facility regulated as a TSDF under 40 CFR part 262, 264, 265, or 266 or otherwise managed in accordance with applicable Federal and State waste management regulations. The TSDF or other applicable waste management location may be either offsite or onsite. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF, or other applicable waste management location, during the month, or the amount collected and stored during the month and designated for future transport to a TSDF or other applicable waste management location. Do not include in your determination any waste materials sent to a TSDF or other applicable waste management location during a month if

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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)(3)(ii) of this section.

(iv) You must document the methodology you used to determine the amount of waste materials and the total mass of organic HAP they contain as required in §63.3512(h). To the extent that 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 which is the combined volume of coating solids for all the coatings used during each month using Equation 2 of this section.

$$V_{st} = \sum_{i=1}^m (\text{Vol}_{c,i}) (V_{s,i}) \quad (\text{Eq. 2})$$

Where:

V_{st} = Total volume of coating solids used during the month, liters.

$\text{Vol}_{c,i}$ = 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 §63.3521(b).

m = Number of coatings used during the month.

(g) Calculate the organic HAP emission rate. Calculate the organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids used, using Equation 3 of this section.

$$H_{yr} = \frac{\sum_{c=1}^{12} H_c}{\sum_{y=1}^{12} V_{st}} \quad (\text{Eq. 3})$$

Where:

H_{yr} = Organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids.

H_c = Total mass of organic HAP emissions, kg, from all materials used during month, y , as calculated by Equation 1 of this section.

V_{st} = Total volume of coating solids, liters, used during month, y , as calculated by Equation 2 of this section.

y = Identifier for months.

(h) *Compliance demonstration.* The organic HAP emission rate for the initial 12-month compliance period, H_{yr} , must be less than or equal to the applicable emission limit in §63.3490. You must keep all records as required by §§63.3512 and 63.3513. As part of the Notification of Compliance Status required by §63.3510, 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 §63.3490, determined according to this section.

(i) *Alternative calculation of overall subcategory emission limit (OSEL).* Alternatively, if your affected source applies coatings in more than one coating type segment within a subcategory, you may calculate an overall HAP emission limit for the subcategory using Equation 4 of this section. If you use this approach, you must limit organic HAP emissions to the atmosphere to the OSEL specified by Equation 4 of this section during each 12-month compliance period.

$$\text{OSEL} = \frac{\sum_{i=1}^n L_i (V_i)}{\sum_{i=1}^n V_i} \quad (\text{Eq. 4})$$

Where:

OSEL = Total allowable organic HAP in kg HAP/liter coating solids (pound (lb) HAP/gal solids) that can be emitted to the atmosphere from all coating type segments in the subcategory.

L_i = HAP emission limit for coating type segment i from Table 1 for a new or reconstructed source or Table 2 for an existing source, kg HAP/liter coating solids (lb HAP/gal solids).

V_i = Total volume of coating solids in liters (gal) for all coatings in coating type segment i used during the 12-month compliance period.

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n = Number of coating type segments within one subcategory being used at the affected source.

You must use the OSEL determined by Equation 4 of this section throughout the 12-month compliance period and may not switch between compliance with individual coating type limits and an OSEL. You may not include coatings in different subcategories in determining your OSEL by this approach. You must keep all records as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, you must identify the subcategory for which you used a calculated OSEL 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 for the subcategory was less than or equal to the OSEL determined according to this section.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1384, Jan. 6, 2006]

§ 63.3532 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 § 63.3531(a) through (g), must be less than or equal to the applicable emission limit in § 63.3490. Alternatively, if you calculate an OSEL for all coating type segments within a subcategory according to § 63.3531(i), the organic HAP emission rate for the subcategory for each compliance period must be less than or equal to the calculated OSEL. You must use the calculated OSEL throughout each compliance period. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3530 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3531(a) through (g) on a monthly basis using 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 § 63.3490 or the OSEL calculated accord-

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ing to § 63.3531(i), this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§ 63.3510(c)(6) and 63.3511(a)(6).

(c) As part of each semiannual compliance report required by § 63.3511, 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 § 63.3490 determined according to § 63.3531(a) through (g), or using the OSEL calculated according to § 63.3531(i).

(d) You must maintain records as specified in §§ 63.3512 and 63.3513.

COMPLIANCE REQUIREMENTS FOR THE EMISSION RATE WITH ADD-ON CONTROLS OPTION

§ 63.3540 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 § 63.3483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3541(i), you must conduct a performance test of each capture system and add-on control device according to §§ 63.3543, 63.3544, and 63.3545 and establish the operating limits required by § 63.3492 no later than 180 days after the applicable compliance date specified in § 63.3483. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.3541(i), you must initiate the first material balance no later than the applicable compliance date specified in § 63.3483.

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(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3541. The initial compliance period begins on the applicable compliance date specified in § 63.3483 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 a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3543, 63.3544, and 63.3545; results of liquid-liquid material balances conducted according to § 63.3541(i); calculations according to § 63.3541 and supporting documentation showing that, during the initial compliance period, the organic HAP emission rate was equal to or less than the emission limit in § 63.3490(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3547; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3492 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section.

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 § 63.3541(i).

(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 § 63.3483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3541(i), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.3543, 63.3544, and 63.3545 and establish the operating limits required by § 63.3492 no later than the compliance date specified in § 63.3483. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.3541(i), you must initiate the first material balance no later than the compliance date specified in § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3541. The initial compliance period begins on the applicable compliance date specified in § 63.3483 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 a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3543,

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63.3544, and 63.3545; results of liquid-liquid material balances conducted according to § 63.3541(i); calculations according to § 63.3541 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limit in § 63.3490(b); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3547; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

§ 63.3541 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 within a subcategory or coating type segment, or for all of the coating operations within a subcategory or coating type segment. 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, the emission rate without add-on controls option, or the control efficiency/outlet concentration 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 § 63.3490. You must conduct a separate initial compliance demonstration for each one and two-piece draw and iron can body coating, sheetcoating, three-piece can body assembly coating, and end coating affected source. You must meet all the requirements of this section to demonstrate initial compliance with the emission limitations. When calculating the organic HAP emission rate according to this section, do not include any coatings or thinners used on coating operations for which you use the compliant material option, the emission rate without add-on controls option, or the control efficiency/outlet concentration option. You do not need to redetermine the mass of organic HAP in coatings or thinners that have

been reclaimed onsite and reused in the coating operation(s) for which you use the emission rate with add-on controls option. All required calculations and compliance demonstrations may be performed with either metric or English units.

(b) *Compliance with operating limits.* Except as provided in § 63.3540(a)(4) and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of § 63.3541(i), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3492 using the procedures specified in §§ 63.3546 and 63.3547.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by § 63.3493 during the initial compliance period, as specified in § 63.3512.

(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 § 63.3490.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in § 63.3531(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating and thinner 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 § 63.3531, calculate the total mass of organic HAP emissions before add-on controls from all coatings and thinners 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 balances. For each controlled coating operation using an emission capture system and add-on control device, other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the or-

ganic HAP emission reduction, using Equation 1 of this section. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation served by the emission capture system and add-on control device during each month. For any period of time a deviation specified in § 63.3542(c) or (d) occurs in the controlled coating operation, including a deviation during a period of SSM, you must assume zero efficiency for the emission capture system and add-on control device, 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 has been 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.

$$H_c = (A_c + B_c - H_{unc}) \left(\frac{CE}{100} \times \frac{DRE}{100} \right) \quad (\text{Eq. 1})$$

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 used in the controlled coating operation during the month, kg, as calculated in Equation 1B of this section.
- H_{unc} = Total mass of organic HAP in the coatings and thinners used during all deviations specified in § 63.3542(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1C 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 §§ 63.3543 and 63.3544 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 §§ 63.3543 and 63.3545 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg, using Equation 1A of this section.

$$A_c = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 1A})$$

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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.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, kg, using Equation 1B of this section.

$$B_c = \sum_{j=1}^n (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (\text{Eq. 1B})$$

Where:

B_c = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter thinner.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used.

(3) Calculate the mass of organic HAP in the coatings and thinners used in the controlled coating operation during deviations specified in § 63.3542(c) and (d), using Equation 1C of this section.

$$H_{unc} = \sum_{h=1}^q (Vol_h)(D_h)(W_h) \quad (\text{Eq. 1C})$$

Where:

H_{unc} = Total mass of organic HAP in the coatings and thinners used during all deviations specified in § 63.3542(c) and (d) that occurred during the month in the controlled coating operation, kg.

Vol_h = Total volume of coating or thinner, h, used in the controlled coating operation during deviations, liters.

D_h = Density of coating or thinner, h, kg per liter.

W_h = Mass fraction of organic HAP in coating or thinner, h, kg organic HAP per kg coating.

q = Number of different coatings or thinners.

(i) 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 ap-

plying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings and thinners 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 (i)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (i)(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.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, kg, based on measurement with the device required in paragraph (i)(1) of this section.

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(3) Determine the mass fraction of volatile organic matter for each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will take precedence

unless, after consultation, a regulated source can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(4) Determine the density of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to § 63.3531(c).

(5) Measure the volume of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section.

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^m (Vol_i)(D_i)(WV_{c,i}) + \sum_{j=1}^n (Vol_j)(D_j)(WV_{t,j})} \quad (\text{Eq. 2})$$

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.

Vol_j = Volume of thinner, j, used in the coating operation controlled by the solvent

recovery system during the month, liters.

D_j = Density of thinner, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner, j, kg volatile organic matter per kg thinner.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month using Equation 3 of this section.

$$H_{CSR} = (A_{CSR} + B_{CSR}) \left(\frac{R_v}{100} \right) \quad (\text{Eq. 3})$$

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 used in the coating operation

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controlled by the solvent recovery system, kg, calculated using Equation 3B 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.

$$A_{CSR} = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 3A})$$

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.

$\text{Vol}_{c,i}$ = 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 per kg.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system using Equation 3B of this section.

$$B_{CSR} = \sum_{j=1}^n (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 3B})$$

Where:

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system during the month, kg.

$\text{Vol}_{t,j}$ = Total volume of thinner, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(j) Calculate the total volume of coating solids used. Determine the total volume

of coating solids used, 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 §63.3531.

(k) Calculate the mass of organic HAP emissions for each month. Determine the mass of organic HAP emissions during each month using Equation 4 of this section.

$$H_{HAP} = H_e - \sum_{i=1}^q (H_{c,i}) - \sum_{j=1}^r (H_{CSR,j}) \quad (\text{Eq. 4})$$

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 and thinners used during the month,

kg, determined according to paragraph (f) of this section.

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$H_{C,i}$ = 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 using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

(l) *Calculate the organic HAP emission rate for the 12-month compliance period.* Determine the organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids used, using Equation 5 of this section.

$$H_{\text{annual}} = \frac{\sum_{y=1}^{12} H_{\text{HAP}, y}}{\sum_{y=1}^{12} V_{\text{st}, y}} \quad (\text{Eq. 5})$$

Where:

H_{annual} = Organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids.

$H_{\text{HAP}, y}$ = Organic HAP emission rate for month, y, determined according to Equation 4 of this section.

$V_{\text{st}, y}$ = Total volume of coating solids used during month, y, liters, from Equation 2 of § 63.3531.

y = Identifier for months.

(m) *Compliance demonstration.* To demonstrate initial compliance with the emission limit, the organic HAP emission rate, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit in § 63.3490. You must keep all records as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, 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 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 § 63.3490, and you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493.

(n) *Alternative calculation of overall subcategory emission limit.* Alternatively, if your affected source applies coatings in more than one coating type segment within a subcategory, you may calculate an overall HAP emission limit for the subcategory using Equation 4 of § 63.3531. If you use this approach, you must limit organic HAP emissions to the atmosphere to the OSEL specified by Equation 4 of § 63.3531 during each 12-month compliance period. You must use the OSEL determined by Equation 4 of § 63.3531 throughout the 12-month compliance period and may not switch between compliance with individual coating type limits and an OSEL. If you follow this approach, you may not include coatings in different subcategories in determining your OSEL. You must keep all records as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, you must identify the subcategory for which you used a calculated OSEL and submit a statement that the coating operation(s) was in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate for the subcategory was less than or equal to the OSEL determined according to this section.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1384, Jan. 6, 2006]

§ 63.3542 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.3490, the organic HAP emission rate for each compliance period, determined according to the procedures in § 63.3541, must be equal to or less than the applicable emission limit in § 63.3490. Alternatively, if you calculate an OSEL for all coating type segments within a subcategory according to § 63.3531(i), the organic HAP emission rate for the subcategory for each compliance period must be less than or equal to the calculated OSEL.

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You must use the calculated OSEL throughout each compliance period. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3540 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3541 on a monthly basis using 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 § 63.3490, that is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.3492 that applies to you as specified in Table 4 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 4 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 4 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 has been approved by the Administrator. For the purposes of completing the compliance calculations specified in § 63.3541(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 § 63.3541.

(d) You must meet the requirements for bypass lines in § 63.3547(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 §§ 63.3510(b)(6) and 63.3511(a)(7). For the

purposes of completing the compliance calculations specified in § 63.3541(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 § 63.3541.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.3493. 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 § 63.3512(j)(8), that is a deviation from the work practice standards that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(f) As part of each semiannual compliance report required in § 63.3511, 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 limitations, 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 § 63.3490, and you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493 during each compliance period.

(g) [Reserved]

(h) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with § 63.6(e)(1). The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations according to the provisions in § 63.6(e).

(i) You must maintain records as specified in §§ 63.3512 and 63.3513.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 20464, Apr. 20, 2006]

§ 63.3543 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3540 according to the requirements in § 63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.3544. You must conduct each performance test of an add-on control device according to the requirements in § 63.3545.

§ 63.3544 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.3540.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all

the exhaust gases from the enclosure to an add-on control device.

(2) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off, curing, and drying occurs within the capture system. For example, the 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 production, and includes drying or curing time, but excludes surface preparation activities.

(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 TTE or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied and all areas where emissions from these applied coatings and 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

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enclosure must meet the applicable definition of a TTE 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 and thinner used in the coating operation during each capture efficiency test run. To make the

determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings and thinners used in the coating operation during each capture efficiency test run.

$$TVH_{used} = \sum_{i=1}^n (TVH_i)(Vol_i)(D_i) \quad (\text{Eq. 1})$$

Where:

TVH_{used} = Total 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 or thinner, 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 or thinner, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating or thinner, i, kg material per liter material.

n = Number of different coatings and thinners used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or 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 TTE or building enclosure dur-

ing 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 TTE.

(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.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section.

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad (\text{Eq. 2})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = Total mass of liquid TVH 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 TTE or building enclosure during the capture efficiency test run, kg, determined according to paragraph (c)(4) of this section.

(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 TTE or a building enclosure and the procedures in paragraphs (d)(1)

through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied and all areas where emissions from these applied coatings and 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 TTE 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 Method 204B or 204C of appendix M to 40 CFR part 51 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 TTE 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 TTE.

(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.

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{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, determined according to paragraph (d)(2) of this section.

$TVH_{\text{uncaptured}}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the TTE or building enclosure during the capture efficiency test run, kg, determined according to paragraph (d)(3) of this section.

(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, 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

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in appendix A to subpart KK of this part.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1384, Jan. 6, 2006]

§ 63.3545 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 § 63.3540. You must conduct three test runs as specified in § 63.7(e)(3) and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]” (incorporated by reference, see § 63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously using either Method 25 or 25A of appendix A to 40 CFR part 60 as specified in paragraphs (b)(1) through (5) of this section. You must

use the same method for both the inlet and outlet measurements.

(1) Use Method 25 of appendix A 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 ppm at the control device outlet.

(2) Use Method 25A of appendix A 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 Method 25A of appendix A to 40 CFR part 60 if the add-on control device is not an oxidizer.

(4) You may use Method 18 of appendix A to 40 CFR part 60 to subtract methane emissions from measured total gaseous organic mass emissions as carbon.

(5) Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator, may be used.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high-volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12) (0.0416) (10^{-6}) \quad (\text{Eq. 1})$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg per hour (kg/h).

C_c = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmvd.

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 (dscmh).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

NOTE: If M_f is calculated in English units (lb/h), the conversion factor for molar volume is 0.00256 lb-moles per cubic foot (mol/ft^3).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section.

$$\text{DRE} = 100 \times \frac{M_{fi} - M_{fo}}{M_{fi}} \quad (\text{Eq. 2})$$

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.

§ 63.3546 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 § 63.3540 and described in §§ 63.3543, 63.3544, and 63.3545, you must establish the operating limits required by § 63.3492 unless you have received ap-

proval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.3492.

(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 the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. That 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 the performance test, you must monitor and record the temperature at the inlet to the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature at the inlet to the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The average temperature difference is the minimum operating limit for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in

paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature at the inlet to 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 at the inlet to the catalyst bed during the performance test. That 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.

(ii) Monthly inspection of the 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 and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency according to § 63.3545.

(c) *Regenerative oxidizers.* If your add-on control device is a regenerative oxidizer, establish operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must establish all applicable operating limits according to paragraphs (a) and (b) of this section.

(2) You must submit a valve inspection plan that documents the steps taken to minimize the amount of leakage during the regenerative process. This plan can include, but is not limited to, routine inspection of key parameters of the valve operating system (*e.g.*, solenoid valve operation, air pressure, hydraulic pressure); visual inspection of the valves during internal in-

spection; and/or actual testing of the emission stream for leakage.

(d) *Carbon adsorbers.* If your add-on control device is a carbon adsorber, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle, and the maximum carbon bed temperature recorded after the cooling cycle.

(e) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (e)(1) and (2) of this section.

(1) During the performance test, monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use 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.

(f) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (f)(1) through (7) of this section.

(1) During the performance test, monitor and record the inlet temperature to the desorption/reativation zone of the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption/reativation zone inlet temperature.

(3) During the performance test, monitor and record an indicator(s) of

performance for the desorption/reactivation fan operation at least once every 15 minutes during each of the three runs of the performance test. The indicator can be speed in revolutions per minute (rpm), power in amps, static pressure, or flow rate.

(4) Establish a suitable range for the parameter(s) selected based on the system design specifications, historical data, and/or data obtained concurrent with an emissions performance test. This is the operation limit range for the desorption/reactivation fan operation.

(5) During the performance test, monitor the rotational speed of the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(6) Use the data collected during the performance test to calculate and record the average rotational speed. This is the minimum operating limit for the rotational speed of the concentrator. However, the indicator range for the rotational speed may be changed if an engineering evaluation is conducted and a determination made that the change in speed will not affect compliance with the emission limit.

(7) Develop and implement an inspection and maintenance plan for the concentrator(s) that you elect to monitor according to paragraph (f) of this section. The plan must include, at a minimum, annual sampling and analysis of the adsorbent material (*i.e.*, adsorbent activity) following the manufacturer's recommended procedures.

(g) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.3544(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (g)(1) and (2) of this section. The operating limit for a PTE is specified in Table 4 to this subpart.

(1) During the capture efficiency determination required by § 63.3540 and described in §§ 63.3543 and 63.3544, you must monitor and record either the gas volumetric flow rate at a location upstream of the control device, or the duct static pressure at a location upstream of the primary fan in each duct of each capture device or upstream of the fan that is common to multiple

capture devices at least once every 15 minutes during each of the three test runs.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device or system of multiple capture devices. The average gas volumetric flow rate is the minimum operating limit for that specific capture device or system of multiple capture devices. The average duct static pressure is the maximum operating limit for that specific capture device or system of multiple capture devices.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1384, Jan. 6, 2006]

§ 63.3547 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), and (f) 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.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device

parameter data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraph (b)(1) or (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) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line. Alternatively, install, maintain, and operate a bypass line valve indicator or damper indicator that indicates valve position.

(2) Secure the bypass line valve in the nondiverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the nondiverting position and the vent stream is not diverted through the bypass line.

(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 a gas temperature monitor according to paragraph (c)(2)(i) or (ii) of this section.

(i) If you establish operating limits according to § 63.3546(b)(1) and (2), then you must install the gas temperature monitors both upstream and downstream of the catalyst bed. The temperature monitors must be in the gas stream at the inlet to and the outlet of the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to § 63.3546(b)(3) and (4), then you must install a gas temperature monitor upstream of the catalyst bed. The temperature monitor must be in the gas stream at the inlet to the catalyst bed to measure the temperature.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (ii) of this section for each gas temperature monitoring device.

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

(ii) Use a temperature sensor with a minimum accuracy of ± 1.2 degrees Celsius or ± 1 percent of the temperature value in degrees Celsius, whichever is larger.

(d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having an accuracy of ± 10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a minimum accuracy of ± 1.2 degrees Celsius or ± 1 percent of the temperature value in degrees Celsius,

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whichever is larger, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a minimum accuracy of ± 1 percent of the temperature recorded in degrees Celsius or ± 1.2 degrees Celsius, whichever is greater.

(2) The temperature monitor must provide a continuous gas temperature record.

(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) through (4) of this section.

(1) You must install a temperature monitor at the inlet to the desorption/reactivation zone of the concentrator. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must select an indicator(s) of performance of the desorption/reactivation fan operation, such as speed, power, static pressure, or flow rate.

(3) You must monitor the rotational speed of the concentrator in revolutions per hour.

(4) You must verify the performance of the adsorbent material by examining representative samples and testing adsorbent activity per the manufacturer's recommendations.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1384, Jan. 6, 2006]

COMPLIANCE REQUIREMENTS FOR THE CONTROL EFFICIENCY/OUTLET CONCENTRATION OPTION

§ 63.3550 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed 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 § 63.3483. You must conduct a performance test of each capture system and add-on control device according to §§ 63.3553, 63.3554, and 63.3555 and establish the operating limits required by § 63.3492 no later than 180 days after the applicable compliance date specified in § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3551. The initial compliance period begins on the applicable compliance date specified in § 63.3483 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. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to § 63.3553, 63.3554, and 63.3555; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3557; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3492 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits on the date you complete the performance tests specified in paragraph (a)(1) of this section.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

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(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 § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3551. The initial compliance period begins on the applicable compliance date specified in § 63.3483 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. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3553, 63.3554, and 63.3555; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3557; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

§ 63.3551 How do I demonstrate initial compliance?

(a) You may use the control efficiency/outlet concentration option for any coating operation, for any group of coating operations within a subcategory or coating type segment, or for all of the coating operations within a subcategory or coating type segment. You must use the compliant material option, 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 the control efficiency/outlet concentration option. To demonstrate initial compliance, the coating operation(s) for which you use the control efficiency/outlet concentration option must meet the applicable levels of emission reduction in § 63.3490. You must conduct a separate initial compliance demonstration for each one and two-piece draw

and iron can body coating, sheetcoating, three-piece can body assembly coating, and end coating affected source. You must meet all the requirements of this section to demonstrate initial compliance with the emission limitations. When calculating the organic HAP emission rate according to this section, do not include any coatings or thinners used on coating operations for which you use the compliant material option, the emission rate without add-on controls option, or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings or thinners that have been reclaimed on-site and reused in the coating operation(s) for which you use the emission rate with add-on controls option.

(b) *Compliance with operating limits.* You must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3492, using the procedures specified in §§ 63.3556 and 63.3557.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by § 63.3493 during the initial compliance period as specified in § 63.3512.

(d) *Compliance demonstration.* To demonstrate initial compliance, the coating operation(s) for which you use the control efficiency/outlet concentration option must meet the applicable levels of emission reduction in § 63.3490. You must keep all records applicable to the control efficiency/outlet concentration option as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, you must identify the coating operation(s) for which you used the control efficiency/outlet concentration option and submit a statement that the coating operation(s) was in compliance with the emission limitations during the initial compliance period because you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493.

§ 63.3552 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the emission limitations using the control efficiency/outlet concentration option, the organic HAP emission rate for each compliance period must be equal to or less than 20 ppmvd or must be reduced by the amounts specified in § 63.3490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3550 is the end of a compliance period consisting of that month and the preceding 11 months.

(b) You must demonstrate continuous compliance with each operating limit required by § 63.3492 that applies to you, as specified in Table 4 to this subpart. If an operating parameter is out of the allowed range specified in Table 4 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(c) You must meet the requirements for bypass lines in § 63.3557(b). 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 §§ 63.3510(b)(6) and 63.3511(a)(7). For purposes of demonstrating compliance, 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.

(d) You must demonstrate continuous compliance with the work practice standards in § 63.3493. 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 § 63.3512(j)(8), this is a deviation from the work practice standards that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(e) As part of each semiannual compliance report required in § 63.3511, you must identify the coating operation(s) for which you used the control efficiency/outlet concentration option. If there were no deviations from the operating limits or work practice standards, 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 20 ppmvd or was reduced by the amount specified in § 63.3490, and you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493 during each compliance period.

(f) [Reserved]

(g) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with § 63.6(e)(1). The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

(h) You must maintain records applicable to the control efficiency/outlet concentration option as specified in §§ 63.3512 and 63.3513.

[68 FR 6446, Nov. 13, 2003, as amended at 71 FR 20464, Apr. 20, 2006]

§ 63.3553 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3550 according to the requirements of § 63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation(s). Operations during periods of startup, shutdown, or malfunction and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating*

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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 § 63.3554. You must conduct each performance test of an add-on control device according to the requirements in § 63.3555.

§ 63.3554 How do I determine the emission capture system efficiency?

The capture efficiency of your emission capture system must be 100 percent to use the control efficiency/outlet concentration option. You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a) and (b) of this section are met.

(a) 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.

(b) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off, curing, and drying occurs within the capture system. This criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

§ 63.3555 How do I determine the outlet THC emissions and add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine either the outlet THC emissions or add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.3550. You must conduct three test runs as specified in § 63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]” (incorporated by reference, see § 63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously using either Method 25 or 25A of appendix A to 40 CFR part 60 as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 of appendix A 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 ppm at the control device outlet.

(2) Use Method 25A of appendix A 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 Method 25A of appendix A to 40 CFR part 60 if the add-on control device is not an oxidizer.

(4) You may use Method 18 of appendix A to 40 CFR part 60 to subtract methane emissions from measured

total gaseous organic mass emissions as carbon.

(5) Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator may be used.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume dilute stream that has been treated by the concentrator and a second add-on control device is an oxidizer with an outlet for the low-volume,

concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high-volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and 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.

$$M_f = Q_{sd} C_c (12) (0.0416) (10^{-6}) \quad (\text{Eq. 1})$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg/h.

C_c = The concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmvd.

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/m³) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

NOTE: If M_f is calculated in English units (lb/h), the conversion factor for molar volume is 0.00256 lb-moles per cubic foot (mol/ft³).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency using Equation 2 of this section.

$$\text{DRE} = 100 \times \frac{M_{fi} - M_{fo}}{M_{fi}} \quad (\text{Eq. 2})$$

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.

§ 63.3556 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 § 63.3550 and described in §§ 63.3553, 63.3554, and 63.3555, you must establish the operating limits required by § 63.3492 according to this section, unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.3492.

(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 the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test

runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. That 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 the performance test, you must monitor and record the temperature at the inlet to the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature at the inlet to the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The average temperature difference is the minimum operating limit for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature at the inlet to 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 at the inlet to the catalyst bed during the performance test. That 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.

(ii) Monthly inspection of the 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 and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency according to § 63.3555.

(c) *Regenerative oxidizers*. If your add-on control device is a regenerative oxidizer, establish operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must establish all applicable operating limits according to paragraphs (a) and (b) of this section.

(2) You must submit a valve inspection plan that documents the steps taken to minimize the amount of leakage during the regenerative process. This plan can include, but is not limited to, routine inspection of key parameters of the valve operating system (*e.g.*, solenoid valve operation, air pressure, hydraulic pressure), visual inspection of the valves during internal inspections, and/or actual testing of the emission stream for leakage.

(d) *Carbon adsorbers*. If your add-on control device is a carbon adsorber, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total

desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(e) *Condensers*. If your add-on control device is a condenser, establish the operating limits according to paragraphs (e)(1) and (2) of this section.

(1) During the performance test, monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use 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.

(f) *Concentrators*. If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (f)(1) through (7) of this section.

(1) During the performance test, monitor and record the inlet temperature to the desorption/reactivation zone of the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption/reactivation zone inlet temperature.

(3) During the performance test, monitor and record an indicator(s) of performance for the desorption/reactivation fan operation at least once every 15 minutes during each of the three runs of the performance test. The indicator can be speed in rpm, power in amps, static pressure, or flow rate.

(4) Establish a suitable range for the parameter(s) selected based on the system design specifications, historical data, and/or data obtained concurrent with an emissions performance test. This is the operation limit range for the desorption/reactivation fan operation.

(5) During the performance test, monitor the rotational speed of the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(6) Use the data collected during the performance test to calculate and record the average rotational speed. This is the minimum operating limit for the rotational speed of the concentrator. However, the indicator range for the rotational speed may be changed if an engineering evaluation is conducted and a determination made that the change in speed will not affect compliance with the emission limit.

(7) Develop and implement an inspection and maintenance plan for the concentrator(s) that you elect to monitor according to paragraph (f) of this section. The plan must include, at a minimum, annual sampling and analysis of the adsorbent material (*i.e.*, adsorbent activity) following the manufacturer's recommended procedures.

(g) *Emission capture systems*. For each capture device that is part of a PTE that meets the criteria of § 63.3554, the operating limit for a PTE is specified in Table 4 to this subpart.

§ 63.3557 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), and (f) 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.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during

monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraph (b)(1) or (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) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.

(2) Secure the bypass line valve in the nondiverting position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the nondiverting position, and the vent stream is not diverted through the bypass line.

(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 a gas temperature monitor according to paragraph (c)(2)(i) or (ii) of this section.

(i) If you establish operating limits according to § 63.3556(b)(1) and (2), then you must install the gas temperature monitors both upstream and downstream of the catalyst bed. The temperature monitors must be in the gas stream at the inlet to and the outlet of the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to § 63.3556(b)(3) and (4), then you must install a gas temperature monitor upstream of the catalyst bed. The temperature monitor must be in the gas stream at the inlet to the catalyst bed to measure the temperature.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (ii) of this section for each gas temperature monitoring device.

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

(ii) Use a temperature sensor with a minimum accuracy of ± 1.2 degrees Celsius or ± 1 percent of the temperature value in degrees Celsius, whichever is larger.

(d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having an accuracy of ± 10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a minimum accuracy of ± 1.2 degrees Celsius or ± 1 percent of the

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temperature value in degrees Celsius, whichever is larger, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers*. If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a minimum accuracy of ± 1.2 degrees Celsius or ± 1 percent of the temperature value in degrees Celsius, whichever is larger.

(2) The temperature monitor must provide a continuous gas temperature record.

(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) through (4) of this section.

(1) You must install a temperature monitor at the inlet to the desorption/ reactivation zone of the concentrator. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must select an indicator(s) of performance of the desorption/reactivation fan operation, such as speed, power, static pressure, or flow rate.

(3) You must monitor the rotational speed of the concentrator in revolutions per hour.

(4) You must verify the performance of the adsorbent material by examining representative samples and testing adsorbent activity per the manufacturer's recommendations.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1384, Jan. 6, 2006]

OTHER REQUIREMENTS AND INFORMATION

§ 63.3560 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency (U.S. 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, in addition to 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 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the work practice standards in § 63.3493.

(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.

§ 63.3561 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:

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 means any chemical substance that is applied for the purpose of bonding two surfaces together.

Aerosol can means any can into which a pressurized aerosol product is packaged.

Aseptic coating means any coating that must withstand high temperature steam, chemicals, or a combination of both used to sterilize food cans prior to filling.

Can body means a formed metal can, excluding the unattached end(s).

Can end means a can part manufactured from metal substrate equal to or thinner than 0.3785 millimeters (mm) (0.0149 inch) for the purpose of sealing the ends of can bodies including nonmetal or composite can bodies.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or *capture system efficiency* means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings, both at the point of application and at subsequent points where emissions from the coatings occur, such as flash-off, drying, or curing.

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, caulks, inks, adhesives, and maskants. Fusion pastes, ink jet markings, mist solutions, and lubricants, as well as decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, are not considered coatings for the purposes of this subpart.

Coating operation means equipment used to apply coating to a metal can or end (including decorative tins), or metal crown or closure, and to dry or cure the coating after application. A coating operation always includes at least the point at which a coating is applied and all subsequent points in the affected source where organic HAP emissions from that coating occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coating solids means the nonvolatile portion of a 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, 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.

Crowns and closures means steel or aluminum coverings such as bottle caps and jar lids for containers other than can ends.

Decorative tin means a single-walled container, designed to be covered or uncovered that is manufactured from metal substrate equal to or thinner than 0.3785 mm (0.0149 inch) and is normally coated on the exterior surface with decorative coatings. Decorative tins may contain foods but are not hermetically sealed and are not subject to food processing steps such as retort or pasteurization. Interior coatings are not usually applied to protect the metal and contents from chemical interaction.

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 limit, operating limit, or work practice standard;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during start-up, shutdown, or malfunction regardless of whether or not such failure is permitted by this subpart.

Drum means a cylindrical metal container with walls of 29 gauge or thicker

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and a capacity greater than 45.4 liters (12 gal).

Emission limitation means an emission limit, operating limit, or work practice standard.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

End coating means the application of end seal compound or repair spray on can ends during manufacturing.

End seal compound means the coating applied onto ends of cans that functions to seal the end(s) of a can to the can body.

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).

Food can means any can manufactured to contain edible products and designed to be hermetically sealed. Does not include decorative tins.

Fusion paste means a material used to attach nozzles and other miscellaneous parts to general line cans.

General line can means any can manufactured to contain inedible products. Does not include aerosol cans or decorative tins.

Ink jet marking means the ink and makeup fluid used for date code and other identification markings on a can for the marking on a can indicating when food in a can has completed the retort process.

Inside spray means a coating sprayed on the interior of a can body to provide a protective film between the can and its contents.

Lubricant means an organic liquid used as a lubricating agent to facilitate the handling and fabrication (*e.g.*, tab making, stamping, or necking) of can bodies or ends.

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 § 63.3521. 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.

Metal can means a single-walled container manufactured from metal substrate equal to or thinner than 0.3785 mm (0.0149 inch).

Mist solution means a hydrocarbon or aqueous solution used as an application aid with solvent-based or waterborne end seal compounds to prevent compound accumulation on the lining nozzle.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in record-keeping when data are based on a business accounting period.

Nonaseptic coating means any coating that is not subjected to high temperature steam, chemicals, or a combination of both to sterilize food cans prior to filling.

One and two-piece draw and iron can means a steel or aluminum can manufactured by the draw and iron process. Includes two-piece beverage cans, two-piece food cans, and one-piece aerosol cans.

One-piece aerosol can means an aerosol can formed by the draw and iron process to which no ends are attached and a valve is placed directly on top.

Organic HAP content means the mass of organic HAP per volume of coating solids for a coating, calculated using Equation 1 of § 63.3521. 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.

Pail means a cylindrical or rectangular metal container with walls of 29 gauge or thicker and a capacity of 7.6 to 45.4 liters (2 to 12 gal) (for example, bucket).

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.

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.

Repair spray means a spray coating for post-formed easy-open ends to provide additional protection in the scored areas by covering breaks at the score location or to provide an additional layer of protective coating on the interior of the end for corrosion resistance.

Research or laboratory equipment means any equipment that is being used to conduct research and development of new processes and products, when such equipment is operated 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.

Sheetcoating means a can manufacturing coating process that involves coating of flat metal sheets before they are formed into cans.

Side seam stripe means a coating applied to the interior and/or exterior of the welded or soldered seam of a three-piece can body to protect the exposed metal.

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. That includes use of a cleaning material to remove dried coating which is sometimes called “depainting.”

Temporary total enclosure (TTE) 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.

Three-piece aerosol can means a steel aerosol can formed by the three-piece can assembly process manufactured to contain food or nonfood products.

Three-piece can assembly means the process of forming a flat metal sheet into a shaped can body which may include the processes of necking, flanging, beading, and seaming and application of a side seam stripe and/or an inside spray coating.

Three-piece food can means a steel can formed by the three-piece can assembly process manufactured to contain edible products and designed to be hermetically sealed.

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.

Two-piece beverage can means a two-piece draw and iron can manufactured to contain drinkable liquids such as beer, soft drinks, or fruit juices.

Two-piece food can means a steel or aluminum can manufactured by the draw and iron process and designed to contain edible products other than beverages and to be hermetically sealed.

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 volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1384, Jan. 6, 2006]

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TABLE 1 TO SUBPART KKKK OF PART 63—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES

You must comply with the emission limits that apply to your affected source in the following table as required by §63.3490(a) through (c).

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	Then for all coatings of this type . . .	You must meet the following organic HAP emission limit in kg HAP/liter solids (lbs HAP/gal solids): ^{a b}
1. One and two-piece draw and iron can body coating.	a. Two-piece beverage cans—all coatings.	0.04 (0.31). 0.06 (0.50). 0.08 (0.65).
2. Sheetcoating	b. Two-piece food cans—all coatings	
3. Three-piece can assembly	c. One-piece aerosol cans—all coatings	0.02 (0.17).
	Sheetcoating	0.12 (1.03).
	a. Inside spray	1.48 (12.37).
	b. Aseptic side seam stripes on food cans.	0.72 (5.96).
	c. Nonaseptic side seam stripes on food cans.	1.18 (9.84).
	d. Side seam stripes on general line nonfood cans.	1.46 (12.14).
4. End coating	e. Side seam stripes on aerosol cans	0.06 (0.54).
	a. Aseptic end seal compounds	0.00 (0.00).
	b. Nonaseptic end seal compounds	0.64 (5.34).
	c. Repair spray coatings	

^a If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to § 63.3531(i).

^b Rounding differences in specific emission limits are attributable to unit conversions.

TABLE 2 TO SUBPART KKKK OF PART 63—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES

You must comply with the emission limits that apply to your affected source in the following table as required by §63.3490(a) through (c).

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	Then for all coatings of this type . . .	You must meet the following organic HAP emission limit in kg HAP/liter solids (lbs HAP/gal solids): ^{a b}
1. One and two-piece draw and iron can body coating.	a. Two-piece beverage cans—all coatings.	0.07 (0.59). 0.06 (0.51). 0.12 (0.99).
2. Sheetcoating	b. Two-piece food cans—all coatings	
3. Three-piece can assembly	c. One-piece aerosol cans—all coatings	0.03 (0.26).
	Sheetcoating	0.29 (2.43).
	a. Inside spray	1.94 (16.16).
	b. Aseptic side seam stripes on food cans.	0.79 (6.57).
	c. Nonaseptic side seam stripes on food cans.	1.18 (9.84).
	d. Side seam stripes on general line nonfood cans.	1.46 (12.14).
4. End coating	e. Side seam stripes on aerosol cans	0.06 (0.54).
	a. Aseptic end seal compounds	0.00 (0.00).
	b. Nonaseptic end seal compounds	2.06 (17.17).
	c. Repair spray coatings	

^a If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to § 63.3531(i).

^b Rounding differences in specific emission limits are attributable to unit conversions.

TABLE 3 TO SUBPART KKKK OF PART 63—EMISSION LIMITS FOR AFFECTED SOURCES USING THE CONTROL EFFICIENCY/OUTLET CONCENTRATION COMPLIANCE OPTION

You must comply with the emission limits that apply to your affected source in the following table as required by §63.3490(d).

If you use the control efficiency/outlet concentration option to comply with the emission limitations for any coating operation(s) . . .	Then you must comply with one of the following by using an emissions control system to . . .
1. in a new or reconstructed affected source	a. reduce emissions of total HAP, measured as THC (as carbon), ^a by 97 percent; or b. limit emissions of total HAP, measured as THC (as carbon), ^a to 20 ppmvd at the control device outlet and use a PTE.

If you use the control efficiency/outlet concentration option to comply with the emission limitations for any coating operation(s) . . .	Then you must comply with one of the following by using an emissions control system to . . .
2. in an existing affected source	<ul style="list-style-type: none"> a. reduce emissions of total HAP, measured as THC (as carbon),^a by 95 percent; or b. limit emissions of total HAP, measured as THC (as carbon),^a to 20 ppmvd at the control device outlet and use a PTE.

^aYou may choose to subtract methane from THC as carbon measurements.

TABLE 4 TO SUBPART KKKK OF PART 63—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION OR THE CONTROL EFFICIENCY/OUTLET CONCENTRATION COMPLIANCE OPTION

If you are required to comply with operating limits by §63.3492, 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	<ul style="list-style-type: none"> a. The average combustion temperature in each 3-hour block period must not fall below the combustion temperature limit established according to §63.3546(a) or §63.3556(a). 	<ul style="list-style-type: none"> i. Collecting the combustion temperature data according to §63.3547(c) or §63.3557(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average combustion temperature at or above the temperature limit established according to §63.3546(a) or §63.3556(a).
2. Catalytic oxidizer	<ul style="list-style-type: none"> a. The average temperature difference across the catalyst bed in each 3-hour period does not fall below the temperature difference limit established according to §63.3546(b)(2) or §63.3556(b)(2); or b. The average temperature measured at the inlet to the catalyst bed in each 3-hour block period must not fall below the limit established according to §63.3546(b) or §63.3556(b); and c. Develop and implement an inspection and maintenance plan according to §63.3546(b)(4) or §63.3556(b)(4). 	<ul style="list-style-type: none"> i. Collecting the temperature data according to §63.3547(c) or §63.3578(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average temperature difference at or above the temperature difference limit established according to §63.3546(b)(2) or §63.3556(b)(2). i. Collecting the temperature data according to §63.3547(c) or §63.3557(c); and ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average temperature at the inlet to the catalyst bed at or above the temperature limit established according to §63.3546(b) or §63.3556(b).
3. Regenerative oxidizers	<ul style="list-style-type: none"> a. Develop and implement a valve inspection plan according to §63.3546(c) or §63.3546(c); and either b. If you are using a regenerative thermal oxidizer, follow the operating limits according to 1.a of this table; or c. If you are using a regenerative catalytic oxidizer, follow the operating limits according to item 2.a of this table. 	<p>Maintaining an up-to-date inspection 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 §63.3546(b)(4) or §63.3556(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.</p> <p>Maintaining an up-to-date valve inspection plan. If a problem is discovered during an inspection required by §63.3556(c), or §63.3556(c), you must take corrective action as soon as soon as practicable.</p> <p>See all applicable items in 1.a of this table.</p> <p>See all applicable items in 2.a, 2.b, and 2.c of this table.</p>

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For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
4. Carbon adsorber	<p>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 § 63.3546(d) or § 63.3556(d).</p> <p>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 § 63.3546(d) or § 63.3556(d).</p>	<p>i. Measuring the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle according to § 63.3547(d) or § 63.3557(d); and</p> <p>ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.</p> <p>i. Measuring the temperature of the carbon bed, after completing each regeneration and any cooling cycle, according to § 63.3547(d) or § 63.3557(d); and</p> <p>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.</p>
5. Condenser	<p>a. The average condenser outlet (product side) gas temperature in each 3-hour period must not exceed the temperature limit established according to § 63.3546(e) or § 63.3556(e).</p>	<p>i. Collecting the condenser outlet (product side) gas temperature according to § 63.3547(e) or § 63.3557(e);</p> <p>ii. Reducing the data to 3-hour block averages; and</p> <p>iii. Maintaining the 3-hour block average gas temperature at the outlet at or below the temperature limit.</p>
6. Concentrators, including zeolite wheels and rotary carbon absorbers.	<p>a. The average inlet temperature measured from the desorption reactivation zone in each 3-hour block period must not fall below the limit established according to § 63.3546(f) or § 63.3556(f).</p> <p>b. The indicator of performance for the desorption reactivation fan operation in each 3-hour block period must not fall outside of the range established according to § 63.3547(f) or § 63.3557(f).</p> <p>c. The nominal rotational speed of the concentrator in each 3-hour block period must not fall below the speed established according to § 63.3546(f) or § 63.3556(f).</p> <p>d. Develop and implement an inspection and maintenance plan according to § 63.3546(f)(3) or § 63.3556(f)(3).</p>	<p>i. Collecting the temperature data including zeolite inlet temperature according to § 63.3547(f)</p> <p>ii. Reducing the data to 3-hour block averages; and</p> <p>iii. Maintaining the 3-hour block average temperature at or above the temperature limit.</p> <p>i. Collecting the indicator data according to § 63.3547(f) or § 63.3557(f); and</p> <p>ii. Maintaining the indicator data within the range established.</p> <p>i. Collecting the rotational speed according to § 63.3547(f) or § 63.3557(f);</p> <p>ii. Reducing the speed data to 3-hour block averages; and</p> <p>iii. Maintaining the 3-hour block average speed at or above the rotational speed limit.</p> <p>Maintaining an up-to-date inspection plan, and records of annual adsorbent activity checks. The results shall be compared to historical results and/or results for new adsorbents. If a problem is discovered during the annual inspection required by § 63.3546(f)(3) or § 63.3556(f)(3), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.</p>
7. Emission capture system that is a PTE according to § 63.3544(a) or § 63.3554(a).	<p>a. The direction of the air flow at all times must be into the enclosure; and either</p>	<p>i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings or the pressure drop across the enclosure; and</p> <p>ii. Reducing the data collected each successive 15-minute period to 3-hour block averages according to § 63.3547(a)(1) and (2) or § 63.3557(a)(1) and (2), as applicable; and</p> <p>iii. Maintaining the 3-hour block average 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.</p>

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
8. Emission capture system that is not a PTE according to § 63.3544(a).	<p>b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or</p> <p>c. The pressure drop across the enclosure must be at least 0.007 inch H₂O, as established in Method 204 of appendix M to 40 CFR part 51.</p> <p>a. The average gas volumetric flow rate at a location upstream of the control device, or duct static pressure at a location upstream (i.e., vacuum side) of the primary fan in each duct of each capture device or upstream of the fan that is common to multiple capture devices in each 3-hour period must not fall below the average volumetric flow rate or above the duct static pressure limit established for that capture device in accordance with § 63.3546 or § 63.3556, as applicable.</p>	<p>See items 7.a.i and ii of this table.</p> <p>See items 7.a.i and ii of this table.</p> <p>i. Measuring the gas volumetric flow at a location upstream of the control device, or duct static pressure at a location upstream (i.e., vacuum side) of the primary fan in each duct of each capture device upstream or upstream of the fan that is common to multiple capture devices; and</p> <p>ii. Reducing the data collected each successive 15-minute period to 3-hour block averages according to § 63.3547(a)(1) and (2) or § 63.3557(a)(1) and (2), as applicable; and</p> <p>iii. Maintaining the 3-hour block average gas volumetric flow rate at a location upstream of the control device, or duct static pressure at a location upstream (i.e., vacuum side) of the primary fan in each duct of each capture device or upstream of the fan that is common to multiple capture devices at or above the average gas volumetric flow rate or below the duct static pressure limit established in accordance with the performance test described in § 63.3546(g).</p>

[68 FR 64446, Nov. 13, 2003, as amended at 71 FR 1384, Jan. 6, 2006]

TABLE 5 TO SUBPART KKKK OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKK

You must comply with the applicable General Provisions requirements according to the following table:

Citation	Subject	Applicable to subpart KKKK	Explanation	
§ 63.1(a)(1)–(4)	General Applicability	Yes.	Applicability to subpart KKKK is also specified in § 63.3481.	
§ 63.1(a)(5)	[Reserved]	No.		
§ 63.1(a)(6)	Source Category Listing	Yes.		
§ 63.1(a)(7)–(9)	[Reserved]	No.		
§ 63.1(a)(10)–(12)	Timing and Overlap Clarifications	Yes.		
§ 63.1(b)(1)	Initial Applicability Determination	Yes		
§ 63.1(b)(2)	[Reserved]	No.		
§ 63.1(b)(3)	Applicability Determination Recordkeeping	Yes.		
§ 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 KKKK.
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes.		
§ 63.1(e)	Applicability of Permit Program before Relevant Standard is Set.	Yes.		
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.3561.	
§ 63.3(a)–(c)	Units and Abbreviations	Yes.		
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.		
§ 63.4(b)–(c)	Circumvention/Fragmentation	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.		

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Citation	Subject	Applicable to subpart KKKK	Explanation
§ 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 63.3483 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.3483 specifies the compliance dates.
§ 63.6(e)(1)–(2)	Operation and Maintenance	Yes.	
§ 63.6(e)(3)	SSMP	Yes	Only sources using an add-on control device to comply with the standard must complete SSMP.
§ 63.6(f)(1)	Compliance Except during Startup, Shutdown, and Malfunction.	Yes	Applies only to sources using an add-on control device to comply with the standards.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of an Alternative Standard	Yes.	
§ 63.6(h)	Compliance with Opacity/Visible Emission Standards.	No	Subpart KKKK does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(14)	Extension of Compliance	Yes.	
§ 63.6(i)(15)	[Reserved]	No.	
§ 63.6(i)(16)	Compliance Extensions and Administrator's Authority.	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 §§ 63.3543, 63.3544, 63.3545, 63.3554, and 63.3555.
§ 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 standards. Sections 63.3540 and 63.3550 specify the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2).
§ 63.7(a)(3)	Performance Tests Required by the Administrator ...	Yes.	
§ 63.7(b)–(e)	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(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 standards.
§ 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 standards. Additional requirements for monitoring are specified in §§ 63.3547 and 63.3557.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart KKKK does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes.	
§ 63.8(c)(1)–(3)	Continuous Monitoring System (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 standards. Additional requirements for CMS operations and maintenance are specified in §§ 63.3547 and 63.3557.

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Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.8(c)(4)	CMS	No	Sections 63.3547 and 63.3557 specify 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 KKKK does not have opacity or visible emission standards.
§ 63.8(c)(6)	CMS Requirements	No	Sections 63.3547 and 63.3557 specify 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 Reporting	No	Section 63.3511 requires reporting of CMS out of control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation	No	
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.3542, 63.3547, 63.3552 and 63.3557 specify monitoring data reduction.
§ 63.9(a)	Notification Applicability	Yes	
§ 63.9(b)(1)–(2)	Initial Notifications	Yes	
§ 63.9(b)(3)	[Reserved]	No	
§ 63.9(b)(4)–(5)	Application for Approval of Construction or Reconstruction	Yes	
§ 63.9(c)	Request for Extension of Compliance	Yes	
§ 63.9(d)	Special Compliance Requirement Notification	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 standards.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart KKKK does not have opacity or visible emission standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	
§ 63.9(h)(1)–(3)	Notification of Compliance Status	Yes	Section 63.3510 specifies the dates for submitting the notification of compliance status.
§ 63.9(h)(4)	[Reserved]	No	
§ 63.9(h)(5)–(6)	Clarifications	Yes	
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes	
§ 63.9(j)	Change in Previous Information	Yes	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information	Yes	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§ 63.3512 and 63.3513.
§ 63.10(b)(2) (i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS	Yes	Requirements for Startup, Shutdown, and Malfunction records only apply to add-on control devices used to comply with the standards.
§ 63.10(b)(2) (vi)–(xi)	Records	Yes	
§ 63.10(b)(2) (xii)	Records	Yes	
§ 63.10(b)(2) (xiii)	Records	No	
§ 63.10(b)(2) (xiv)	Records	Yes	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	
§ 63.10(c)(1)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
§ 63.10(c)(2)–(4)	[Reserved]	No	
§ 63.10(c)(5)–(6)	[Reserved]	Yes	
§ 63.10(c)(7)–(8)	[Reserved]	No	The same records are required in § 63.3511(a)(7).
§ 63.10(c)(9)	[Reserved]	No	
§ 63.10(c)(10)–(15)	[Reserved]	Yes	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.3511.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.3511(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart KKKK does not require opacity or visible emissions observations.

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Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.10(d)(4)	Progress Reports for Sources with Compliance Extensions.	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, Malfunction Reports	Yes	Applies only to and add-on control devices at sources using these to comply with the standards.
§ 63.10(e)(1)–(2)	Additional CMS Reports	No.	
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.3511(b) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	Subpart KKKK does not specify requirements for opacity or COMS.
§ 63.11	Control Device Requirements/Flares	No	
§ 63.12	State Authority and Delegations	Yes.	Subpart KKKK does not specify use of flares for compliance.
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information/Confidentiality	Yes.	

TABLE 6 TO SUBPART KKKK 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.

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. Lignoines (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 7 TO SUBPART KKKK 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 6 to this subpart and you only know whether the blend is aliphatic or aromatic.

^b E.g., 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 E.g., Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

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