ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[FRL–7418–3]

RIN 2060–AG96

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

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The EPA is proposing national emission standards for hazardous air pollutants (NESHAP) for metal can surface coating operations pursuant to section 112(d) of the Clean Air Act (CAA). The EPA estimates that there are approximately 142 major source facilities in the metal can surface coating source category that emit hazardous air pollutants (HAP), such as xylene, hexane, methyl isobutyl ketone (MIBK), ethylene glycol monobutyl ether (EGBE) and other glycol ethers, isophorone, ethyl benzene, formaldehyde, napthalene, methyl ethyl ketone (MEK), cumene, and toluene. As proposed, the standards are estimated to reduce HAP emissions by 6,160 megagrams per year (Mg/yr) (6,800 tons per year (tpy)) or by 71 percent. The reduction in HAP emissions would be achieved by requiring all major sources of HAP emissions that have metal can surface coating operations to meet the HAP emission standards reflecting the application of the maximum achievable control technology (MACT).

DATES: *Comments.* Submit comments on or before February 14, 2003.

Public Hearing. If anyone contacts the EPA requesting to speak at a public hearing, they should do so by January 27, 2003. If requested, a public hearing will be held approximately 15 days following publication of this notice in the **Federal Register**.

ADDRESSES: *Comments.* By U.S. Postal Service, send comments (in duplicate if possible) to: Office of Air & Radiation Docket & Information Center (6102T), Attention Docket Number A–98–41, U.S. EPA, 1301 Constitution Avenue, NW., Room B108, Washington, DC 20460. In person or by courier, deliver comments (in duplicate if possible) to: Air and Radiation Docket and Information Center, Attention Docket Number A–98–41, U.S. EPA, 1301 Constitution Avenue, NW., Room B108, Washington, DC 20460. The EPA requests a separate copy also be sent to the contact person listed in **FOR FURTHER INFORMATION CONTACT.**

Public Hearing. If a public hearing is held, it will be held at the new EPA facility complex in Research Triangle Park, NC. You should contact Ms. Janet Eck, Coatings and Consumer Product Group, Emission Standards Division (C539–03), U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541–7946, to request to speak at the public hearing or to find out if a hearing will be held.

Docket. Docket No. A–98–41 contains supporting information used in developing the proposed standards. The docket is located at the Environmental Protection Agency, Office of Air & Radiation Docket & Information Center (6102T), 1301 Constitution Avenue, NW., Room B108, Washington, DC 20460, and may be inspected from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: Mr. Paul Almódovar, Coatings and Consumer Products Group, Emissions Standards Division (C539–03), U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541–0283; facsimile number (919) 541–5689; electronic mail (e-mail) address: *almodovar.paul@.epa.gov.*

SUPPLEMENTARY INFORMATION:

Comments. Comments and data may be submitted by e-mail to: *a-and-r-docket@epa.gov.* Electronic comments must be submitted as an ASCII file to avoid the use of special characters and encryption problems and will also be accepted on disks in WordPerfect® file format. All comments and data submitted in electronic form must note the docket number: A–98–41. No confidential business information (CBI) should be submitted by e-mail. Electronic comments may be filed online at many Federal Depository Libraries.

Commenters wishing to submit proprietary information for consideration must clearly distinguish such information from other comments and clearly label it as CBI. Send submissions containing such proprietary information directly to the following address, and not to the public docket, to ensure that proprietary information is not inadvertently placed in the docket: Mr. Paul Almódovar, c/o OAQPS Document Control Officer (C404–02), U.S. EPA, Research Triangle Park, NC 27711. The EPA will disclose information identified as CBI only to the extent allowed by the procedures set forth in 40 CFR part 2. If no claim of confidentiality accompanies a submission when it is received by EPA, the information may be made available to the public without further notice to the commenter.

Public Hearing. Persons interested in presenting oral testimony or inquiring as to whether a hearing is to be held should contact Ms. Janet Eck, Coatings and Consumer Products Group, Emission Standards Division (C539–03), U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541–7946 at least 2 days in advance of the public hearing.

Persons interested in attending the public hearing should also contact Ms. Eck at least 2 days in advance of the public hearing to verify the time, date, and location of the hearing. The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning these proposed emission standards.

Docket. The docket is an organized and complete file of all the information considered by EPA in the development of the proposed rule. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, the contents of the docket will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the CAA.) The regulatory text and other materials related to the rulemaking are available for review in the docket or copies may be mailed on request from the Air and Radiation Docket and Information Center by calling (202) 260–7548. A reasonable fee may be charged for copying docket materials.

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of the proposed rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature by the Administrator, a copy of the proposed rule will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Regulated Entities. The proposed source category definition includes facilities that apply surface coatings to metal cans and ends (including decorative tins) or metal crowns and closures. In general, facilities that apply surface coatings to metal cans are

covered under the North American Industrial Classification System (NAICS) codes listed in Table 1. However, facilities classified under other NAICS codes may be subject to the proposed rule if they meet the applicability criteria.

The table is not intended to be exhaustive, but rather provides a guide for readers regarding subcategories and entities likely to be regulated by today's action. To determine whether your coating operation is regulated by this action, you should examine the applicability criteria in 40 CFR 63.3481 of the proposed rule. If you have any questions regarding the applicability of today's action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

TABLE 1.—SUBCATEGORIES AND ENTITIES POTENTIALLY REGULATED BY THE PROPOSED STANDARDS

Subcategory	NAICS	Examples of Potentially Regulated Entities
One- and two-piece draw and iron (D&I) can body coatings.	332431	Two-piece beverage can facility
Sheetcoatings	332431 332115 332116 332812 332999	Three-piece food can facility, two-piece D&I facility, one-piece aerosol can facility, etc.
Three-piece can assembly coatings	332431	Can assembly facility
End lining coatings	332431 332812	End manufacturing facilities

Background Information Document and Economic Impact Analysis. The Background Information Document (BID) and the Economic Impact Analysis (EIA) for the proposed rule may be obtained from the TTN WWW; the metal can manufacturing (surface coating) docket (A–98–41); the EPA Library (267–01), Research Triangle Park, NC 27711, telephone (919) 541–2777; or the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, telephone (703) 487–4650. Please refer to ''Background Information Document—National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Metal Can Manufacturing (Surface Coating) Industry'' (EPA–453/R–02–008) and the ''Economic Impact Analysis of Metal Can MACT Standards'' (EPA–452/R–02–005).

Outline. The information presented in this preamble is organized as follows:

I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The metal can surface coating source category was listed on July 16, 1992 (57 FR 31576) under the Surface Coating Processes industry group. Major sources of HAP are those that emit or have the potential to emit equal to or greater than 9.1 Mg/yr (10 tpy) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP emissions from both new or reconstructed and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. That level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the

better-controlled and lower-emitting sources in each source category or subcategory. For new or reconstructed sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new or reconstructed sources, but they cannot be less stringent than the average emission limit achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

C. What Impacts Do Cure HAP Have on the NESHAP?

Chemical reactions occurring during many metal can surface coating and curing operations may create compounds that are then emitted into the atmosphere. Those types of compounds are normally referred to as ''cure volatiles'' or ''cure HAP'' and may include formaldehyde and methanol (listed as HAP under section 112(b) of the CAA). In determining the MACT, we did not quantify emissions of cure HAP because there is not an EPA-approved test method for measuring those compounds. Therefore, the proposed rule would not require affected sources to account for and control emissions of cure HAP.

D. What Are the Health Effects Associated With HAP Emissions From Metal Can Surface Coating Operations?

The primary HAP emitted from metal can surface coating operations include EGBE and other glycol ethers, xylenes, hexane, MEK, and MIBK. Those compounds account for 95 percent of the nationwide HAP emissions from that source category. Other HAP emitted include isophorone, ethyl benzene, toluene, trichloroethylene, formaldehyde, and napthalene. The HAP that would be controlled with the proposed rule are associated with a variety of adverse health effects. Those adverse health effects include chronic health disorders (*e.g.*, irritation of the lungs, eyes, and mucus membranes and effects on the central nervous system), acute health disorders (*e.g.*, lung irritation and congestion, alimentary effects such as nausea and vomiting, and effects on the central nervous system), and possibly cancer.

We do not have the type of current detailed data on each of the facilities covered by the proposed emission standards for that category and on the people living around the facilities that would be necessary to conduct an analysis to determine the actual population exposures to the HAP emitted from those facilities and potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding those facilities. However, to the extent that adverse effects do occur, the proposed rule would reduce emissions and subsequent exposures.

II. Summary of the Proposed Rule

A. What Source Categories and Subcategories Are Affected by the Proposed Rule?

The proposed rule would apply to you if you own or operate a metal can surface coating operation that uses at least 5,700 liters (1,500 gallons (gal)) of coatings per year and is a major source, is located at a major source, or is part of a major source of HAP emissions, whether or not you manufacture the metal can substrate. The surface coating operations themselves are not required to be major sources of HAP emissions in order for the surface coating operations at a major source facility to be covered by the proposed rule. As long as some part of the total facility is considered a major source (*e.g.*, the metal can substrate manufacturing process), the surface coating operations would be subject to the standards.

A metal can surface coating facility is any facility that coats or prints metal cans or ends (including decorative tins) or metal crowns or closures for any type of can during any stage of the can manufacturing process. It includes the coating/printing of metal sheets for subsequent processing into cans or can parts, but not the coating of metal coils for cans or can parts. (Coil coating for cans and can parts is included in the metal coil surface coating source category.) Note that the coating/printing of pails and drums falls in the miscellaneous metal parts and products surface coating source category. As explained later, we have established four subcategories in the metal can surface coating industry, including: (1) One- and two-piece D&I can body coating, (2) sheetcoating, (3) three-piece can body assembly coating, and (4) end lining. Some metal can surface coating facilities include coating operations in more than one subcategory. In those cases, the facilities would be subject to more than one emission limit.

You would not be subject to the proposed rule if your coating operation is located at an area source. An area source of HAP is any facility that has the potential to emit HAP but is not a major source. You may establish area source status by limiting the source's potential to emit HAP through appropriate mechanisms available through the permitting authority.

B. What Is the Relationship to Other Rules?

Affected sources subject to the proposed rule may also be subject to other rules. We specifically request comments on how monitoring, recordkeeping, and reporting requirements can be consolidated for sources that are subject to more than one rule.

National Emission Standards for Metal Coil Surface Coating. Facilities engaged in surface coating performed on a continuous metal substrate greater than 0.006 inches thick would be subject to the metal coil surface coating NESHAP (67 FR 39794, June 10, 2002).

National Emission Standards for Miscellaneous Metal Parts and Products Surface Coating. Surface coating of any metal parts and products not covered in any other surface coating source category, such as metal can surface coating or metal coil surface coating, would be subject to the future miscellaneous metal parts and products surface coating NESHAP, as proposed August 13, 2002 (67 FR 52780).

C. What Are the Primary Sources of Emissions and What Are the Regulated Pollutants?

HAP Emission Sources. The primary HAP emission sources in metal can surface coating operations are coating application lines, drying/curing ovens, mixing and/or thinning areas, and cleaning equipment. Coating application lines and drying/curing ovens are the largest sources of HAP emissions. Recent reformulation efforts involving the primary coatings used in metal can surface coating operations are likely to continue as a result of the proposed rule and will serve to reduce HAP emissions from these sources. Mixing and/or thinning areas and cleaning equipment are smaller HAP emission sources and work practice standards would be used to limit the HAP emissions from these sources.

Organic HAP. Available emission data collected during the development of the proposed NESHAP show that the

primary organic HAP (including cure HAP) emitted from metal can surface coating operations include EGBE and other glycol ethers, xylenes, hexane, MEK, and MIBK. Other significant organic HAP identified include isophorone, ethyl benzene, toluene, trichloroethylene, napthalene, and formaldehyde. Organic HAP emissions would be regulated by the proposed metal can surface coating rule.

Inorganic HAP. Based on information reported during the development of the proposed NESHAP, inorganic HAP, including chromium and manganese compounds, are contained in some of the coatings used by that source category and may be emitted if they are spray-applied. Inorganic HAP emissions would not be regulated by the proposed metal can surface coating rule. (*See* section III.B of this preamble for further discussion of inorganic HAP emissions from surface coating operations.)

D. What Is the Affected Source?

We define an affected source as a stationary source, group of stationary sources, or part of a stationary source to which a specific emission standard applies. The proposed standards for metal can surface coating define the affected source for each subcategory as the collection of all operations within a facility associated with (1) one- and two-piece D&I can body coating, (2) sheetcoating, (3) three-piece can body assembly coating, or (4) end lining. Those operations include the following: Preparation of a coating for application (*e.g.*, mixing with thinners); process equipment involving storage, transfer, handling, and application of coatings; and associated curing, and drying equipment.

The affected source does not include research or laboratory equipment or janitorial, building, or facility maintenance operations.

E. What Are the Emission Limits, Operating Limits, and Work Practice Standards?

Emission Limits. We are proposing to limit organic HAP emissions from each new or reconstructed affected source using the emission limits in Table 2 of this preamble. The proposed emission limits for each existing affected source are given in Table 3 of this preamble. You can choose from several compliance options in the proposed rule to achieve the emission limit that applies to your affected source. You could comply by applying materials (coatings and thinners) that meet the emission limit, either individually or collectively. You could also use a capture system and add-on control equipment to meet the emission limit. You could also comply by using a combination of both approaches. If you use a capture system and add-on control equipment, there are alternative control efficiency or outlet concentration limits that you may use to simplify and reduce your recordkeeping and reporting requirements. The alternative emission limits for affected sources using the control efficiency/outlet concentration compliance option are provided in Table 4 of this preamble.

TABLE 2.—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	for all coatings of this type . . .	then, you must meet the following organic HAP emission limit in kilograms HAP/liter solids (pound HAP/gal solids) [1]:
1. One- and two-piece D&I can body coating	a. two-piece beverage cans—all coatings	0.04 (0.31)
	b. two-piece food cans—all coatings	0.06 (0.50)
	c. one-piece aerosol cans—all coatings	0.08 (0.65)
2. Sheetcoating	sheetcoating	0.02 (0.17)
3. Three-piece can assembly	a. inside spray	0.12 (1.03)
	b. aseptic side seam stripes on food cans	1.48 (12.37)
	c. non-aseptic side seam stripes on food cans	0.72 (5.96)
	d. side seam stripes on general line non-food cans	1.18 (9.84)
	e. side seam stripes on aerosol cans	1.46 (12.14)
4. End lining	a. aseptic end seal compounds	0.06 (0.54)
	b. non-aseptic end seal compounds	0.00 (0.00)

[1] If you apply surface coatings of more than one type within any one subcategory, you may calculate an overall subcategory emission limit (OSEL) according to 40 CFR 63.3551(i).

TABLE 3.—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	for all coatings of this type . . .	then, you must meet the following organic HAP emission limit in kilogram HAP/liter solids (pound HAP/gal solids) [1]:
1. One- and two- piece D&I can body coating	a. two-piece beverage cans—all coatings	0.07 (0.59)
	b. two-piece food cans—all coatings	0.06 (0.51)
	c. one-piece aerosol cans—all coatings	.....
		0.12 (0.99)
2. Sheetcoating	sheetcoating	0.03 (0.26)
3. Three-piece can assembly	a. inside spray	0.29 (2.43)
	b. aseptic side seam stripes on food cans	1.94 (16.16)
	c. non-aseptic side seam stripes on food cans	0.79 (6.57)
	d. side seam stripes on general line non-food cans	1.18 (9.84)
	e. side seam stripes on aerosol cans	1.46 (12.14)

TABLE 3.—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES—Continued

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	for all coatings of this type . . .	then, you must meet the following organic HAP emission limit in kilogram HAP/liter solids (pound HAP/gal solids) [1]:
4. End lining	a. aseptic end seal compounds	0.06 (0.54)
	b. non-aseptic end seal compounds	0.00 (0.00)

[1] If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to 40 CFR 63.3551(i).

TABLE 4.—EMISSION LIMITS FOR AFFECTED SOURCES USING THE CONTROL EFFICIENCY/OUTLET CONCENTRATION COMPLIANCE OPTION

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 total hydrocarbons (THC) (as carbon),[1] by 97 percent; or b. limit emissions of total HAP, measured as THC (as carbon) [1] to 20 parts per million by volume, dry (ppmvd) at the control device outlet and use a permanent total enclosure.
2. In an existing affected source	a. reduce emissions of total HAP, measured as THC (as carbon),[1] by 95 percent; or b. limit emissions of total HAP, measured as THC (as carbon),[1] to 20 ppmvd at the control device outlet and use a PTE.

[1] You may choose to subtract methane from THC as carbon measurements.

Operating Limits. If you reduce emissions by using a capture system and add-on control device (other than a solvent recovery system for which you conduct a liquid-liquid material balance), the proposed operating limits would apply to you. Those limits are site-specific parameter limits you determine during the initial performance test of the system. For capture systems that are not permanent total enclosures (PTE), you would establish average volumetric flow rates or duct static pressure limits for each capture device (or enclosure) in each capture system. For capture systems that are PTE, you would establish limits on average facial velocity or pressure drop across openings in the enclosure.

For thermal oxidizers, you would monitor the combustion temperature. For catalytic oxidizers, you would monitor the temperature immediately before and after the catalyst bed or you would monitor the temperature before the catalyst bed and implement a site-specific inspection and maintenance plan for the catalytic oxidizer. For carbon adsorbers for which you do not conduct a liquid-liquid material balance, you would monitor the carbon bed temperature and the amount of steam or nitrogen used to desorb the bed. For condensers, you would monitor the outlet gas temperature from the condenser. For concentrators, you would monitor the temperature of the desorption concentrate stream and the pressure drop of the dilute stream across the concentrator.

All site-specific parameter limits that you establish must reflect operation of the capture system and control devices during a performance test that demonstrates achievement of the emission limits during representative operating conditions.

Work Practice Standards. In lieu of emission standards, section 112(h) of the CAA allows work practice standards or other requirements to be established when a pollutant cannot be emitted through a conveyance or capture system, or when measurement is not practicable because of technological and economic limitations. Many metal can surface coating facilities use work practice measures to reduce HAP emissions from mixing, cleaning, storage, and waste handling areas as part of their standard operating procedures. They use those measures to decrease solvent usage and minimize exposure to workers. However, we do not have data to accurately quantify the emissions reductions achievable by the work practice measures, and it is not feasible to measure emissions or enforce a numerical standard for emissions from those operations.

Based on information received from that industry during the development of NESHAP and information available from several similar coating industries for which NESHAP have already been promulgated (aerospace manufacturing and rework, magnetic tape manufacturing, shipbuilding and ship repair, and wood furniture manufacturing), we identified a variety of work practice measures for cleaning, storage, mixing, and waste handling. If you reduce emissions by using a capture system and add-on control device, you would be required to develop and implement a work practice plan that would specify practices and procedures to ensure that, at a minimum, the elements specified below are implemented: (1) Storing all organic-HAP-containing liquids and waste materials in closed containers, (2) minimizing spills of all organic-HAP-containing materials, (3) using closed containers or pipes to transport all organic-HAP-containing materials, (4) keeping mixing vessels for organic-HAP-containing materials closed except when adding to, removing, or mixing the contents, and (5) minimizing organic HAP emissions during all cleaning operations.

If your affected source has an existing documented plan that incorporates steps taken to minimize emissions from the aforementioned sources, then your existing plan could be used to satisfy the requirement for a work practice plan.

Operations During Startup, Shutdown, or Malfunction. If you use a capture system and add-on control device for compliance, you would be required to develop and operate according to a startup, shutdown, and malfunction plan (SSMP) during

periods of startup, shutdown, or malfunction of the capture system and add-on control device.

General Provisions. The General Provisions (40 CFR part 63, subpart A) also would apply to you as indicated in the proposed standards. The General Provisions codify certain procedures and criteria for all 40 CFR part 63 NESHAP. The General Provisions contain administrative procedures, preconstruction review procedures for new sources, and procedures for conducting compliance-related activities such as notifications, recordkeeping and reporting, performance testing, and monitoring. The proposed standards refer to individual sections of the General Provisions to emphasize key sections that are relevant. However, unless specifically overridden in the proposed standards, all of the applicable General Provisions requirements would apply to you.

F. When Must I Comply With the Proposed Rule?

Existing affected sources must comply within 3 years of [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**]. New or reconstructed affected sources must comply immediately upon initial startup or on [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**], whichever is later. A metal can surface coating affected source is existing if its construction or reconstruction of the facility commenced on or before January 15, 2003. An affected source is new if construction commenced after January 15, 2003. A metal can surface coating affected source is reconstructed if it meets the definition of reconstruction in 40 CFR 63.2 and reconstruction is commenced after January 15, 2003. The effective date is [DATE OF PUBLICATION OF THE FINAL RULE IN THE **Federal Register**].

G. What Are the Testing and Initial Compliance Requirements?

Initial Compliance. Compliance with the emission limits is based on a 12-month rolling average. Therefore, for new or reconstructed affected sources using the compliant materials option or the emission rate without add-on controls option, the proposed initial compliance period begins on the first day of the first month following initial startup of the affected source or the effective date, whichever is later, and ends on the last day of the 12th month following initial startup or the effective date, whichever is later. For new or reconstructed affected sources that use a capture system and control device, the initial compliance period begins on the first day of the first month following the initial performance test and ends on the last day of the 12th month following the initial performance test. For all new or reconstructed affected sources, any partial month data between initial startup or initial performance test and initial compliance period must be added to the first month data. For existing affected sources, the proposed initial compliance period begins on the first day of the month in which the compliance date falls and ends on the last day of the 12th month following the compliance date.

Being in compliance means that the owner or operator of the affected source meets the requirements to achieve the proposed emission limitations by the end of the initial compliance period. At the end of the initial compliance period, the owner or operator would use the data and records generated to determine whether or not the affected source is in compliance with the 12-month rolling average for that period. If the affected source does not meet the applicable limits and other requirements, it is out of compliance for the entire initial compliance period. We welcome specific comments on the compliance dates and the data collection activities required for the initial compliance period.

Emission Limits. There are several proposed options for complying with the proposed emission limits, and the testing and initial compliance requirements vary accordingly.

Option 1: Compliance Based on the Compliant Material Option. If you demonstrate compliance based on the compliant material option, you would determine the mass of organic HAP in all coatings and thinners used each month during the initial compliance period and the volume fraction of coating solids in all coatings used each month during the initial compliance period. To determine the mass of organic HAP in coatings and thinners and the volume fraction of coating solids, you could use either manufacturer's data or test results using the test methods listed below. You may use alternative test methods provided you get EPA approval in accordance with 40 CFR 63.7(f). However, if there is any inconsistency between the test method results (either EPA's or an approved alternative) and manufacturer's data, the test method results would prevail for compliance and enforcement purposes.

- For organic HAP content, use Method 311 of 40 CFR part 63, appendix A.
- The proposed rule allows you to use nonaqueous volatile matter as a surrogate for organic HAP. If you choose that option, then use Method 24 of 40 CFR part 60, appendix A, to determine nonaqueous volatile matter.
- For volume fraction of coating solids, use either information from the supplier or manufacturer of the material, ASTM Method D2697–86(1998), or ASTM Method D6093–97.

To demonstrate initial compliance based on the compliant materials option, you would be required to demonstrate that the organic HAP content of each coating meets the applicable emission limits and that you use no organic-HAP-containing thinners.

Option 2: Compliance Based on the Emission Rate Without Add-On Controls Option. If you demonstrate compliance based on the emission rate without add-on controls option, you would determine the mass of organic HAP in all coatings and thinners used in each coating type segment each month during the initial compliance period and the volume fraction of coating solids in all coatings in each coating type segment used each month during the initial compliance period.

To determine the mass of organic HAP in coatings and thinners and the volume fraction of coating solids, you could use either manufacturer's data or test results using the test methods listed below. You may use alternative test methods provided you get EPA approval in accordance with 40 CFR 63.7(f). However, if there is any inconsistency between the test method results (either EPA's or an approved alternative) and manufacturer's data, the test method results would prevail for compliance and enforcement purposes.

- For organic HAP content, use Method 311.
- The proposed rule allows you to use nonaqueous volatile matter as a surrogate for organic HAP. If you choose that option, use Method 24 to determine nonaqueous volatile matter.
- For volume fraction of coating solids, use either information from the supplier or manufacturer of the material, ASTM Method D2697–86(1998), or ASTM Method D6093–97.

To demonstrate initial compliance based on the emission rate without add-on controls option, you would be required to demonstrate that the total mass of organic HAP in all coatings and thinners in each coating type segment divided by the total volume of coating solids in that coating type segment meets the applicable emission limit. For the emission rate without add-on

controls option, you would be required to perform the following.

- Determine the quantity of each coating and thinner used in each coating type segment.
- Determine the mass of organic HAP in each coating and thinner in each coating type segment.
- Determine the volume fraction of coating solids for each coating in each coating type segment.
- Calculate the total mass of organic HAP in all materials in each coating type segment and total volume of coating solids in each coating type segment for each month of the initial compliance period. You may subtract from the total mass of organic HAP the amount contained in waste materials you send to a hazardous waste treatment, storage, and disposal facility regulated under 40 CFR part 262, 264, 265, or 266.
- Calculate the ratio of the total mass of organic HAP for the materials used in each coating type segment to the total volume of coating solids used in the segment.
- Record the calculations and results and include them in your Notification of Compliance Status.

Alternatively, if you apply coatings in more than one coating type segment within a subcategory, you may calculate an overall HAP emission limit for the subcategory and demonstrate compliance by including all coatings and thinners in all coating type segments in the subcategory in calculating the ratio of total mass of organic HAP to total volume of coating solids. If you use that approach, you must use the subcategory limit throughout the 12-month initial compliance period and may not switch between compliance with limits for individual coating type segments and an overall limit. You may not include coatings in different subcategories in determining your overall HAP limit by that approach.

Option 3: Compliance Based on the Emission Rate With Add-On Controls Option. If you use a capture system and add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance, your testing and initial compliance requirements are as follows.

- Conduct an initial performance test to determine the capture and control efficiencies of the equipment and to establish operating limits to be achieved on a continuous basis.
- Determine the mass of organic HAP in each material and the volume fraction of coating solids for each coating used each month of the initial compliance period.
- Calculate the organic HAP emissions from the controlled coating operations using the capture and control efficiencies determined during the performance test and the total mass of organic HAP in materials used in controlled coating operations.
- Calculate the ratio of the total mass of organic HAP emissions to the total volume of coating solids used each month of the initial compliance period.
- Record the calculations and results and include them in the Notification of Compliance Status.

If you use a capture system and add-on control device, other than a solvent recovery system for which you conduct liquid-liquid material balances, you would determine both the efficiency of the capture system and the emissions reduction efficiency of the control device. To determine the capture efficiency, you would either verify the presence of a PTE using EPA Method 204 of 40 CFR part 51, appendix M, or use one of the protocols in 40 CFR 63.3565 to measure capture efficiency. If you have a PTE and all the materials are applied and dried within the enclosure and you route all exhaust gases from the enclosure to a control device, then you would assume 100 percent capture.

To determine the emissions reduction efficiency of the control device, you would conduct measurements of the inlet and outlet gas streams. The test would consist of three runs, each run lasting at least 1 hour, using the following EPA Methods in 40 CFR part 60, appendix A:

- Method 1 or 1A for selection of the sampling sites;
- Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate;
- Method 3, 3A, or 3B 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;
- Method 4 to determine stack moisture; and
- Method 25 or 25A to determine organic volatile matter concentration.

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, could be used.

If you use a solvent recovery system, you could determine the overall control efficiency using a liquid-liquid material balance instead of conducting an initial performance test. If you use the material balance alternative, you would be required to measure the amount of all materials used in the affected source during each month of the initial compliance period and determine the volatile matter contained in these materials. You would also measure the amount of volatile matter recovered by the solvent recovery system each month of the initial compliance period. Then you would compare the amount recovered to the amount used to determine the overall control efficiency and apply this efficiency to the ratio of organic HAP to coating solids for the materials used. You would record the calculations and results and include them in your Notification of Compliance Status.

Operating Limits. As mentioned above, you would establish operating limits as part of the initial performance test of an emission capture and control system. The operating limits are the values of certain parameters measured for capture systems and control devices during the most recent performance test that demonstrated compliance with the emission limits. The proposed rule specifies the parameters to monitor for the types of emission control systems commonly used in the industry.

You would be required to install, calibrate, maintain, and continuously operate all monitoring equipment according to the manufacturer's specifications and ensure that the continuous parameter monitoring systems (CPMS) meet the requirements in 40 CFR 63.3568 of the proposed rule. If you use control devices other than those identified in the proposed rule, you would submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by EPA and is not delegated to States.

If you use a thermal oxidizer, you would continuously monitor the appropriate temperature and record it at least every 15 minutes. The temperature monitor is placed in the firebox or in the duct immediately downstream of the firebox before any substantial heat exchange occurs. The operating limit would be the average temperature measured during the performance test, and for each consecutive 3-hour period the average temperature would have to be at or above that limit.

If you use a catalytic oxidizer you may choose from two methods to determine operating limits. In the first method, you would continuously monitor the temperature immediately before and after the catalyst bed and record it at least every 15 minutes. The operating limits would be the average temperature difference across the catalyst bed during the performance test, and for each 3-hour period the

average temperature and the average temperature difference would have to be at or above those limits. In the alternative method, you would continuously monitor the temperature immediately before the catalyst bed and record it at least every 15 minutes. The operating limit would be the average temperature just before the catalyst bed during the performance test, and for each 3-hour period the average temperature would have to be at or above that limit. As part of the alternative method, you must also develop and implement an inspection and maintenance plan for your catalytic oxidizer.

If you use a carbon adsorber and do not conduct liquid-liquid material balances to demonstrate compliance, you would monitor the carbon bed temperature after each regeneration and the total amount of steam or nitrogen used to desorb the bed for each regeneration. The operating limits would be the carbon bed temperature (not to be exceeded) and the amount of steam or nitrogen used for desorption (to be met as a minimum).

If you use a condenser, you would monitor the outlet gas temperature to ensure that the air stream is being cooled to a low enough temperature. The operating limit would be the average condenser outlet gas temperature measured during the performance test, and for each consecutive 3-hour period the average temperature would have to be at or below this limit.

If you use a concentrator, you would monitor the desorption concentrate stream gas temperature and the pressure drop of the dilute stream across the concentrator. The operating limits would be the desorption concentrate gas stream temperature (to be met as a minimum) and the dilute stream pressure drop (not to be exceeded).

For each capture system that is not a PTE, you would establish operating limits for gas volumetric flow rate or duct static pressure for each enclosure or capture device. The operating limit would be the average volumetric flow rate or duct static pressure during the performance test to be met as a minimum. For each capture system that is a PTE, the operating limit would require the average facial velocity of air through all natural draft openings to be at least 200 feet per minute or the pressure drop across the enclosure to be at least 0.007 inch water.

Work Practice Standards. If you use a capture system and control device for compliance, you would be required to develop and implement on an ongoing basis a work practice plan for minimizing organic HAP emissions from storage, mixing, material handling, and waste handling operations. That plan would include a description of all steps taken to minimize emissions from those sources (*e.g.*, using closed storage containers, practices to minimize emissions during filling and transfer of contents from containers, using spill minimization techniques, etc.). You would have to make the plan available for inspection if the Administrator requests to see it.

Operations During Startup, Shutdown, or Malfunction. If you use a capture system and control device for compliance, you would be required to develop and operate according to a SSMP during periods of startup, shutdown, or malfunction of the capture system and control device.

Option 4: Compliance Based on the Control Efficiency/Outlet Concentration Option. If you use a capture system and add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance, you may meet either of the applicable alternative limits summarized in Table 4 of this preamble instead of the organic HAP emission rate limits summarized in Tables 2 and 3 of this preamble. Prior to the initial performance test, you would be required to install control device parameter monitoring equipment to be used to demonstrate compliance with the capture and control efficiencies (or the capture efficiency of the capture system and the oxidizer outlet concentration) and to establish operating limits to be achieved on a continuous basis. During the initial compliance test, you would use the control device parameter monitoring equipment to establish parameter values that represent your operating requirements for the control systems. You would record the initial performance test results and include them in the Notification of Compliance Status.

If you use a capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, you would verify the efficiency of the capture system is 100 percent and determine the emissions reduction efficiency of the control device. To verify the capture efficiency, you would either verify the presence of a PTE using EPA Method 204 of 40 CFR part 51, appendix M, or use one of the protocols in § 63.3565 to measure capture efficiency. If you have a PTE and all the materials are applied and dried within the enclosure and you route all exhaust gases from the enclosure to a control device, then you would assume 100 percent capture.

To determine the emissions reduction efficiency of the control device, you would conduct measurements of the inlet and outlet gas streams. The test would consist of three runs, each run lasting at least 1 hour, using the following EPA Methods in 40 CFR part 60, appendix A:

- Method 1 or 1A for selection of the sampling sites;
- Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate;
- Method 3, 3A, or 3B 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;
- Method 4 to determine stack moisture; and
- Method 25 or 25A to determine organic volatile matter concentration.

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, could be used.

If you use a solvent recovery system, you could determine the overall control efficiency using a liquid-liquid material balance instead of conducting an initial performance test. If you use the material balance alternative, you would be required to measure the amount of all materials used in the affected source during each month of the initial compliance period and determine the volatile matter contained in these materials. You would also measure the amount of volatile matter recovered by the solvent recovery system each month of the initial compliance period. Then you would compare the amount recovered to the amount used to determine the overall control efficiency, and apply this efficiency to the ratio of organic HAP to coating solids for the materials used. You would record the calculations and results and include them in your Notification of Compliance Status.

Operating Limits. As mentioned above, you would establish operating limits as part of the initial performance test of an emission capture and control system. The operating limits are the values of certain parameters measured for capture systems and control devices during the most recent performance test that demonstrated compliance with the emission limits. The proposed rule specifies the parameters to monitor for the types of emission control systems commonly used in the industry.

You would be required to install, calibrate, maintain, and continuously operate all monitoring equipment according to the manufacturer's specifications and ensure that the CPMS meet the requirements in 40 CFR 63.3568 of the proposed rule. If you use control devices other than those identified in the proposed rule, you would submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by EPA and is not delegated to States.

If you use a thermal oxidizer, you would continuously monitor the appropriate temperature and record it at least every 15 minutes. The temperature monitor is placed in the firebox or in the duct immediately downstream of the firebox before any substantial heat exchange occurs. The operating limit would be the average temperature measured during the performance test, and for each consecutive 3-hour period the average temperature would have to be at or above that limit.

If you use a catalytic oxidizer you may choose from two methods to determine operating limits. In the first method, you would continuously monitor the temperature immediately before and after the catalyst bed and record it at least every 15 minutes. The operating limits would be the average temperature difference across the catalyst bed during the performance test, and for each 3-hour period the average temperature and the average temperature difference would have to be at or above these limits. In the alternative method, you would continuously monitor the temperature immediately before the catalyst bed and record it at least every 15 minutes. The operating limit would be the average temperature just before the catalyst bed during the performance test, and for each 3-hour period the average temperature would have to be at or above this limit. As part of the alternative method, you must also develop and implement an inspection and maintenance plan for your catalytic oxidizer.

If you use a carbon adsorber and do not conduct liquid-liquid material balances to demonstrate compliance, you would monitor the carbon bed temperature after each regeneration and the total amount of steam or nitrogen used to desorb the bed for each regeneration. The operating limits would be the carbon bed temperature (not to be exceeded) and the amount of steam or nitrogen used for desorption (to be met as a minimum).

If you use a condenser, you would monitor the outlet gas temperature to ensure that the air stream is being cooled to a low enough temperature. The operating limit would be the average condenser outlet gas temperature measured during the performance test, and for each consecutive 3-hour period the average temperature would have to be at or below that limit.

If you use a concentrator, you would monitor the desorption concentrate stream gas temperature and the pressure drop of the dilute stream across the concentrator. The operating limits would be the desorption concentrate gas stream temperature (to be met as a minimum) and the dilute stream pressure drop (not to be exceeded).

For each capture system that is not a PTE, you would establish operating limits for gas volumetric flow rate or duct static pressure for each enclosure or capture device. The operating limit would be the average volumetric flow rate or duct static pressure during the performance test, to be met as a minimum. For each capture system that is a PTE, the operating limit would require the average facial velocity of air through all natural draft openings to be at least 200 feet per minute or the pressure drop across the enclosure to be at least 0.007 inches water.

Work Practice Standards. If you use a capture system and control device for compliance, you would be required to develop and implement on an ongoing basis a work practice plan for minimizing organic HAP emissions from storage, mixing, material handling, and waste handling operations. That plan would include a description of all steps taken to minimize emissions from those sources (*e.g.*, using closed storage containers, practices to minimize emissions during filling and transfer of contents from containers, using spill minimization techniques, *etc.*). You would have to make the plan available for inspection if the Administrator requests to see it.

Operations During Startup, Shutdown, or Malfunction. You would be required to develop and operate your capture system and control device according to a SSMP during periods of startup, shutdown, or malfunction of the capture system and control device.

H. What Are the Continuous Compliance Requirements?

Option 1: Compliance Based on the Compliant Material Option. If you demonstrate compliance with the proposed emission limits based on the compliant material option, you would demonstrate continuous compliance if, for each 12-month compliance period, the organic HAP content of each coating used does not exceed the applicable emission limit and you use no thinner that contains organic HAP.

Option 2: Compliance Based on the Emission Rate Without Add-On Controls Option. If you demonstrate compliance with the proposed emission limits based on the emission rate without add-on controls option, you would demonstrate continuous compliance if, for each rolling 12-month compliance period, the ratio of organic HAP in all coatings and thinners in each coating type segment to coating solids in that coating type segment is less than or equal to the applicable emission limit. You would follow the same procedures for calculating the organic HAP to coating solids ratio that you used for the initial compliance period. If you use an alternative calculated overall HAP emission limit for all coating type segments within a subcategory, you would use the same procedures that you used for the initial compliance period. Whichever approach you use must be used consistently throughout each 12-month compliance period.

Option 3: Compliance Based on the Emission Rate With Add-On Controls Option. For each coating operation on which you use a capture system and control device, other than a solvent recovery system for which you conduct a liquid-liquid material balance, you would use the continuous parameter monitoring results for the month in determining the mass of organic HAP emissions. If the monitoring results indicate no deviations from the operating limits and there were no bypasses of the control device, you would assume the capture system and control device are achieving the same percent emissions reduction efficiency as they did during the most recent performance test in which compliance was demonstrated. You would then apply that percent reduction to the total mass of organic HAP in materials used in controlled coating operations to determine the monthly emission rate from those operations. If there were any deviations from the operating limits during the month or any bypasses of the control device, you would account for them in the calculation of the monthly emission rate by assuming the capture system and control device were achieving zero emissions reduction during the periods of deviation. Then, you would determine the annual average emission rate by calculating the ratio for the most recent 12-month period.

For each coating operation on which you use a solvent recovery system and conduct a liquid-liquid material balance each month, you would use the liquid-

liquid material balance to determine control efficiency. To determine the overall control efficiency, you must measure the amount of all materials used during each month and determine the volatile matter content of these materials. You must also measure the amount of volatile matter recovered by the solvent recovery system during the month, calculate the overall control efficiency, and apply it to the total mass of organic HAP in the materials used to determine total organic HAP emissions. Then, you would determine the annual average emission rate by taking the average of the monthly ratios for the most recent 12-month period.

Operating Limits. If you use a capture system and control device, the proposed rule would require you to achieve on a continuous basis the operating limits you establish during the performance test. If the continuous monitoring shows that the capture system and control device is operating outside the range of values established during the performance test, you have deviated from the established operating limits.

If you operate a capture system and control device that allow emissions to bypass the control device, you would have to demonstrate that organic HAP emissions from each emission point within the affected source are being routed to the control device by monitoring for potential bypass of the control device. You may choose from the following four monitoring procedures:

- Flow control position indicator to provide a record of whether the exhaust stream is directed to the control device;
- Car-seal or lock-and-key valve closures to secure the bypass line valve in the closed position when the control device is operating;
- Valve closure continuous monitoring to ensure any bypass line valve or damper is closed when the control device is operating; or
- Automatic shutdown system to stop the coating operation when flow is diverted from the control device.

If the bypass monitoring procedures indicate that emissions are not routed to the control device, you have deviated from the emission limits.

Work Practice Standards. If you use an emission capture system and control device for compliance, you would be required to implement on an ongoing basis the work practice plan you developed during the initial compliance period. If you did not develop a plan for reducing organic HAP emissions or you do not implement the plan, that would be a deviation from the work practice standards.

Operations During Startup, Shutdown, or Malfunction. If you use a capture system and control device for compliance, you would be required to develop and operate according to an SSMP during periods of startup, shutdown, or malfunction of the capture system and control device.

Option 4: Compliance Based on the Control Efficiency/Outlet Concentration Option. If you use a capture system and add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance, your testing and continuous compliance requirements are the same as those in Option 3. For add-on control systems, you would be required to install control device parameter monitoring equipment to be used to demonstrate compliance with the operating requirements for add-on control systems in today's proposed rule. If you operate a CPMS, it would have to collect data at least every 15 minutes and you would need to have at least three data points per hour to have a valid hour of data. You would have to operate the CPMS at all times the surface coating operation and control systems are operating. You would also have to conduct proper maintenance of the CPMS and maintain an inventory of necessary parts for routine repairs of the CPMS. Using the data collected with the CPMS, you would calculate and record the average values of each operating parameter according to the specified averaging times.

I. What Are the Notification, Recordkeeping, and Reporting Requirements?

You are required to comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63, as described in the proposed rule. The General Provisions notification requirements include: Initial notifications, notification of performance test if you are complying using a capture system and control device, notification of compliance status, and additional notifications required for affected sources with continuous monitoring systems. The General Provisions also require certain records and periodic reports.

Initial Notification. If the proposed standards apply to you as a new or reconstructed affected source, you must send a notification to the EPA Regional Office in the region where your facility is located and to your State agency within 120 days after the date of initial startup or 120 days after publication of the final rule, whichever is later. Existing affected sources must send the initial notification within 1 year after publication of the final rule. The report notifies us and your State agency that you have constructed a new facility, reconstructed an existing facility, or you have an existing facility that is subject to the proposed rule. Thus, it allows you and the permitting authority to plan for compliance activities. You would also need to send a notification of planned construction or reconstruction of a source that would be subject to the proposed rule and apply for approval to construct or reconstruct.

Notification of Performance Test. If you demonstrate compliance by using a capture system and control device for which you do not conduct a liquid-liquid material balance, you would conduct a performance test. For a new or reconstructed affected source, the performance test would be required no later than 180 days after initial startup or 180 days after publication of the final rule, whichever is later. For an existing source, the performance test would be required no later than the compliance date. You must notify us (or the delegated State or local agency) at least 60 calendar days before the performance test is scheduled to begin, as indicated in the General Provisions for the NESHAP.

Notification of Compliance Status. Your compliance procedures would depend on which compliance option you choose. For each compliance option, you would send us a Notification of Compliance Status within 30 days after the end of the initial compliance period. In the notification, you would certify whether the affected source has complied with the proposed standards, identify the option(s) you used to demonstrate initial compliance, summarize the data and calculations supporting the compliance demonstration, and describe how you will determine continuous compliance.

If you elect to comply by using a capture system and control device for which you conduct performance tests, you must provide the results of the tests. Your notification would also include the measured range of each monitored parameter and the operating limits established during the performance test, and information showing whether the affected source has complied with its operating limits during the initial compliance period.

Recordkeeping Requirements. You would be required to keep records of reported information and all other information necessary to document compliance with the proposed rule for 5 years. As required under the General Provisions, records for the 2 most recent years must be kept on-site; the other 3

years' records may be kept off-site. Records pertaining to the design and operation of control and monitoring equipment must be kept for the life of the equipment.

Depending on the compliance option that you choose, you may need to keep records of the following:

- Organic HAP content, volatile matter content, coating solids content, and quantity of the coatings and other materials applied; and
- All documentation supporting initial notifications and notifications of compliance status.

If you demonstrate compliance by using a capture system and control device, you would also need to keep records of the following:

- The occurrence and duration of each startup, shutdown, or malfunction of the emission capture system and control device;
- All maintenance performed on the capture system and control device;
- Actions taken during startup, shutdown, and malfunction that are different from the procedures specified in the affected source's SSMP;
- All information necessary to demonstrate conformance with the affected source's SSMP when the plan procedures are followed;
- All information necessary to demonstrate conformance with the affected source's plan for minimizing emissions from mixing, storage, and waste handling operations;
- Each period during which a CPMS is malfunctioning or inoperative (including out of control periods);
- All required measurements needed to demonstrate compliance with the standards; and
- All results of performance tests.

The proposed rule would require you to collect and keep records according to your monitoring plan. Failure to collect and keep the specified minimum data would be a deviation that is separate from any emission limits, operating limits, or work practice standards.

Deviations, as determined from those records, would need to be recorded and also reported. A deviation is any instance when any requirement or obligation established by the proposed rule including, but not limited to, the emission limits, operating limits, and work practice standards, are not met.

If you use a capture system and control device to reduce organic HAP emissions, you would have to make your SSMP available for inspection if the Administrator requests to see it. The plan would stay in your records for the life of the affected source or until the affected source is no longer subject to the proposed standards. If you revise the plan, you would need to keep the previous superceded versions on record for 5 years following the revision.

Periodic Reports. Each year is divided into two semiannual reporting periods. If no deviations occur during a semiannual reporting period, you would submit a semiannual report stating that the affected source has been in continuous compliance. If deviations occur, you would need to include them in the report as follows:

- Report each deviation from the emission limit.
- Report each deviation from the work practice standards if you use an emission capture system and control device.
- If you use an emission capture system and control device, report each deviation from an operating limit and each time a bypass line diverts emissions from the control device to the atmosphere.
- Report other specific information on the periods of time and details of deviations that occurred.

You would also have to include an explanation in each semiannual report if a change occurs that might affect the compliance status of the affected source or you change to another option for meeting the applicable emission limit.

Other Reports. You would be required to submit reports for periods of startup, shutdown, and malfunction of the capture system and control device. If the procedures you follow during any startup, shutdown, or malfunction are inconsistent with your plan, you would report those procedures with your semiannual reports in addition to immediate reports required by the General Provisions in section 63.10(d)(5)(ii).

III. Rationale for Selecting the Proposed Standards

A. How Did We Select the Source Category and Subcategories?

Metal can surface coating operations is on the CAA list of source categories to be regulated because it contains major sources that emit or have the potential to emit at least 9.07 Mg (10 tons) of any one HAP or at least 22.7 Mg (25 tons) of any combination of HAP annually. The proposed rule would control HAP emissions from both new or reconstructed and existing major sources. Area sources are not being regulated under the proposed rule.

We intend the source category to include facilities for which the surface coating of metal cans is either their principal activity or is an integral part of a production process which is the principal activity. While some facilities are entirely dedicated to surface coating, most metal can surface coating operations are located at plant sites for which can manufacturing is the principal activity. Both stand-alone and co-located surface coating operations are included in the source category, and the definition of the source category is intended to reflect that inclusion. The project database was used to identify those ''major source'' or ''synthetic minor source'' facilities that reported using at least 5,700 liter/yr (1,500 gal/yr) of coatings in metal can surface coating operations.

The source category does not include research or laboratory facilities or janitorial, building, and facility maintenance operations.

Subcategory Selection. The statute gives us discretion to determine if and how to subcategorize. A subcategory is a group of similar sources within a given source category. As part of the regulatory development process, we evaluate the similarities and differences among industry segments or groups of facilities comprising a source category. In establishing subcategories, we consider factors such as process operations (type of process, raw materials, chemistry/formulation data, associated equipment, and final products), emission characteristics (amount and type of HAP), control device applicability, and opportunities for pollution prevention. We may also consider existing regulations or guidance from States and other regulatory agencies in determining subcategories.

After reviewing survey responses from the industry, facility site visit reports, and information received from stakeholder meetings we found that the metal can surface coating industry may be grouped into four product groups or subcategories with different coating processes and performance requirements. The four subcategories are (1) One- and two-piece D&I can body coating, (2) sheetcoating, (3) three-piece can body assembly coating, and (4) end lining. We also found significant differences in coating requirements for cans manufactured for different end uses within several of these subcategories that warranted further segmentation into coating types within the subcategories. Descriptions of each subcategory and coating type segment are given in the following paragraphs.

One- and Two-Piece Draw and Iron Can Body Coating. Aluminum or steel D&I cans are made from metal coil by stamping out shallow metal cups which are then placed on a cylinder and forced through a series of rings of decreasing annular space to further draw out the

wall of the can and iron out folds in the metal. Surface coatings, both interior and exterior, are then applied to the formed can.

There are several reasons why D&I can body coating is a separate subcategory. In both annual production and overall HAP emissions, cans made by the D&I process make up the largest component of the metal can manufacturing industry. The processes by which they are produced and surface-coated, and, to some extent, the coatings used, differ significantly from those used for other types of cans, and because of existing VOC rules and the coating processes and configuration of D&I facilities, emission control devices are commonly used.

While the general production and coating application processes are similar for all D&I cans, differences in coating types and relative amount of coating used for cans with different end uses warrant a further subdivision of that subcategory into three coating type segments: (1) Two-piece beverage can coatings, (2) two-piece food can coatings, and (3) one-piece aerosol can coatings. A different MACT standard is proposed for each of those segments.

Sheetcoating. The subcategory includes all of the flat metal sheet coating operations associated with the manufacture of three-piece cans, decorative tins, crowns and closures, and two-piece draw-redraw cans. The methods of coating application and the types of coatings used on flat sheets differ significantly from those used in the other subcategories. The coatings (interior and exterior base coatings, decorative inks, and overvarnishes) are most commonly applied by roller to the flat metal sheets, which then pass through a curing oven. While those emission points are sometimes uncontrolled, the best-performing sources typically control emissions through the use of ultraviolet cured coatings or partial or total enclosures routed to thermal or catalytic oxidizers that achieve destruction efficiencies of 95 percent or higher. Decorative inks, which make up a significant proportion of the coatings used in sheetcoating, have very low concentrations of HAP and are inherently low-emitting.

Three-Piece Can Body Assembly Coatings. Three-piece cans consist of an open-ended can body and two separate ends. Can body assembly is the step in the three-piece can manufacturing process in which flat body blanks are formed into a cylinder and the side seams are joined together. Coating operations associated with can body assembly are interior and exterior side seam stripe and inside spray applications.

Several characteristics of three-piece can body assembly coating place it in a separate subcategory. Can assembly facilities use only a limited number of coatings in relatively small total volumes. Side seam striping is unique in that the application process and coating formulations have higher solvency requirements than other can body and end coatings and end seal compounds. Side seam stripe emissions are typically uncontrolled because emission rates are low and capturing emissions is not economical due to high air flow rates and low solvent loading.

Three-piece cans made for different end uses and contents require coatings, particularly side seam stripes, with widely differing chemical characteristics and shelf life requirements. Some food cans must be sterilized before filling by subjecting them to high temperature steam, chemicals, or a combination of both, while other food cans do not require this kind of aseptic processing. Different kinds of foods vary in their acid contents. Coatings required on cans for these different end uses often have significantly different HAP contents. Inside spray coatings also differ from side seam stripes in quantity used and chemical composition. For those reasons, the three-piece can body assembly coating subcategory is divided into five distinct coating type segments with different emission limits for each. Those segments include: (1) Inside spray coatings, (2) aseptic side seam stripe coatings for food cans, (3) non-aseptic side seam stripe coatings for food cans, (4) side seam stripe coatings for non-food general line cans, and (5) side seam stripe coatings for non-food aerosol cans.

End Lining Coatings. End lining coating operations consisting of the application of end seal compounds to can ends are in a separate subcategory for several reasons. Unlike other coatings, end seal compounds are applied in a bead around the edges of can ends. Curing takes place under ambient conditions (not in a curing oven) over a longer period of time than other coatings. And the coating formulation (solids content, types of solvents used) of end seal compounds differs significantly from other coatings. Emissions from end lining operations are not controlled because the curing rate of end seal compounds is slow. Controlling such volatile HAP emissions is not cost effective, since it would result in a high volume, low concentration emission stream requiring significant auxiliary fuel usage to achieve a high destruction efficiency.

As with side seam stripes, some end seal compounds must withstand aseptic processing while others do not have to meet that requirement. There are significant differences in formulation and HAP content (and emissions) for end seal compounds for aseptic and non-aseptic applications. For that reason the end lining subcategory is divided into two coating type segments: aseptic and non-aseptic.

B. How Did We Select the Regulated Pollutants?

Organic HAP. Available emission data collected during the development of the proposed rule show that the primary organic HAP emitted from metal can surface coating operations include EGBE and other glycol ethers, xylenes, hexane, MEK, and MIBK. Those compounds account for 95 percent of that source category's nationwide organic HAP emissions. Other significant organic HAP emissions include isophorone, ethyl benzene, toluene, trichloroethylene, formaldehyde, and naphthalene. Because coatings used by metal can surface coating operations contain many combinations of those and other organic HAP, it is not practical to regulate them individually. Therefore, the proposed rule would regulate emissions of all organic HAP.

Inorganic HAP. Based on information reported during the development of the proposed rule, inorganic HAP contained in the coatings used by that source category include chromium, manganese, and antimony compounds. Because these inorganic compounds are in the coating solids, they are retained in the dry (film) coating on the substrate to which the coating is applied. The only opportunity for any quantifiable solids material to enter the ambient air is if they are spray-applied and emitted as overspray. Because of the atomization of the coating during spray application, inorganic compounds become airborne and are either deposited on the substrate, fall to the floor in the spray application area, or enter the air and become susceptible to transport to other areas in the building or outside into the ambient air. The data available to EPA indicate that the facilities in that source category that use spray application techniques in rare instances apply coatings that contain inorganic HAP compounds. However, because they do not have emission control systems for inorganic compounds, there is no demonstrated control technology on which to base a standard. Therefore, the proposed rule would not regulate emissions of inorganic HAP.

C. How Did We Select the Affected Source?

In selecting the affected source(s) for emission standards, our primary goal is to ensure that MACT is applied to HAP-emitting operations or activities within the source category or subcategory being regulated. The affected source also serves to determine where new source MACT applies under a particular standard. Specifically, the General Provisions in subpart A of 40 CFR part 63 define the terms ''construction'' and ''reconstruction'' with reference to the term ''affected source'' and provide that new source MACT applies when construction or reconstruction of an affected source occurs. The collection of equipment and activities evaluated in determining MACT (including the MACT floor) is used in defining the affected source.

When an emission standard is based on a collection of emission sources or total facility emissions, we select an affected source based on that same collection of emission sources, or the total facility, as well. That approach for defining the affected source broadly is particularly appropriate for industries where a plantwide emission standard provides the opportunity and incentive for owners and operators to utilize control strategies that are more cost-effective than if separate standards were established for each emission point within an affected source.

Selection of Affected Source. The affected source for the proposed standards is broadly defined for each subcategory. It includes all metal can surface coating operations and associated ancillary equipment within each of the four subcategories. Those operations include all coating application equipment, all coating and thinner storage containers and mixing vessels, all equipment and containers used for conveying coatings and thinners, and all storage containers and conveyance equipment for waste materials generated by a metal can surface coating operation.

Since a facility may have coating operations in more than one subcategory and, thus, be subject to separate emission limits for each subcategory, we have defined all the coating-related equipment in each subcategory as the affected source. In selecting the affected source, we considered, for each operation, the extent to which HAP-containing materials are used and the amount of HAP that are emitted. Coating application, flash-off, and curing/drying operations account for the majority of HAP emission and are included in the affected source.

We were not able to obtain data to adequately quantify HAP emissions from storage, mixing, cleaning, waste handling and wastewater treatment. However, solvents that are added to coatings as thinners, for example, may be emitted during mixing and storage. The level of emissions depends on the type of mixing and the type of storage container and the work practices used at the affected source. The magnitude of emissions from cleaning depends primarily on the type, amount, and HAP content of cleaning materials used. Emissions from waste handling operations depend on the type of system used to collect and transport organic-HAP-containing waste materials in the affected source. The HAP emissions from wastewater treatment depend on the quantity and types of HAP discharged to the wastewater treatment operation and the subsequent wastewater treatment processes, *e.g.*, treatment by aeration or by biodegradation. Mixing, storage, cleaning, waste handling, and wastewater treatment operations are included in the affected source.

A broad definition of the affected source was selected to provide maximum flexibility in complying with the proposed emission limits for organic HAP. In planning its total usage of HAP-containing materials, each affected source can select among available coating, printing, thinning, and cleaning materials, as well as use of emission capture systems and add-on controls for coating operations, to maximize emissions reductions in the most cost-effective manner.

Additional information on the metal can surface coating operations selected for regulation and other operations are included in the docket for the proposed standards.

D. How Did We Determine the Basis and Level of the Proposed Standards for New or Reconstructed Affected Sources and Existing Affected Sources?

The sections below present the rationale for determining the MACT floor, regulatory alternatives beyond the floor, and selection of the proposed standards for new or reconstructed and existing affected sources.

How did we determine the MACT floor? After we identify the specific source categories or subcategories of sources to regulate under section 112 of the CAA, we must develop emission standards for each category and subcategory. Section 112(d)(3) establishes a minimum baseline or floor for standards. For new or reconstructed affected sources in a category or subcategory, the standards cannot be less stringent than the emission control achieved in practice by the best-controlled similar source for which we have emission information. The standards for existing affected sources can be less stringent than standards for new or reconstructed sources, but they cannot be less stringent than the average emission control achieved by the best-performing 12 percent of existing sources (or the best-performing five existing sources for categories or subcategories with fewer than 30 sources) for which we have emission information.

In the metal can surface coating industry, organic HAP emission control for surface coating operations is accomplished through the use of low- or no-HAP coatings and thinners and add-on capture and control systems. While various emission control techniques have achieved broad use in the industry, different facilities use various combinations of low- or no-HAP materials and add-on control equipment for different types of surface coating operations. For example, the continuous linear configuration of sheetcoating operations make them more amenable to emissions reduction with add-on control equipment, while the nature of side seam stripe coating applications make add-on emission control impractical.

Thus, the most reasonable approach to establishing a MACT floor is the evaluation of a source's organic HAP emissions for each type of coating operation and each coating type segment it includes. To account for differences in coating volumes used in different types of operations and differences in production levels from one source to another, we normalized the organic HAP emission rate by the volume of coating solids used.

We used information obtained from industry survey responses to estimate the organic HAP emission rate for each subcategory and coating type segment included in each facility. We calculated total organic HAP emissions by assuming that 100 percent of the volatile components in all coatings and thinners are emitted. Sources used for determining the MACT floor emission limits included those facilities that listed major source or synthetic minor source as their title V status on their responses to questionnaires we sent to them and that used at least 5,700 liters/yr (1,500 gal/yr) of coatings in metal can surface coating operations. Other sources were included if their data indicated that they have the capacity to increase their organic HAP emissions to at least 9.1 Mg/yr (10 tpy), even though

they did not identify themselves as major or synthetic minor sources.

Using the organic HAP emissions and the total volume of coating solids used in each subcategory and coating type segment for each survey respondent, we calculated the normalized organic HAP emissions (emission rate) in units of kilograms (kg) organic HAP per liter of coating solids (pounds (lb) organic HAP per gal of coating solids) used. The sources were then ranked from the lowest to the highest emission rate in each of the four subcategories and coating type segments.

For subcategories and coating segments in which there were more than 30 sources, the existing source MACT floor was based on the top 12 percent of the sources. For subcategories and coating segments with fewer than 30 sources, the existing source MACT floor was based on the top five sources. The average emission rate for each subcategory was interpreted as the median value of the included sources. The median emission rate was selected rather than the mean or mode because it is associated with an actual emission rate being achieved by a real facility. The best performing source in each subcategory or coating segment in the database determined the MACT floor for new or reconstructed affected sources.

The MACT floor analysis for new affected sources resulted in the emission limits for each subcategory and coating segment given in Table 2 of this preamble. The analysis for existing affected sources resulted in emission limits given in Table 3 of this preamble. The alternative control efficiency and outlet concentration limits for those new and existing sources using capture and control systems are given in Table 4 of this preamble. The survey data showed no appreciable differences in substrates coated, coating technologies used, or the applicability of control measures between the floor sources and the remaining sources in each subcategory and coating segment.

After the floors have been determined for new or reconstructed and existing sources in a source category or subcategory, we must set emission standards that are technically achievable and no less stringent than the floors. Such standards must then be met by all affected sources within the source category or subcategory. We identify and consider any reasonable regulatory alternatives that are beyond-the-floor, taking into account emissions reductions, cost, non-air quality health and environmental impacts, and energy requirements. Different beyond-the-floor alternatives may be considered for new or reconstructed affected sources and existing affected sources.

The beyond-the-floor option considered for all the subcategories and for both new and existing sources was requiring the use of capture systems and add-on control devices for all metal can surface coating operations. The add-on control device chosen for the beyond-the-floor analysis was a regenerative thermal oxidizer (RTO). An RTO was chosen to reflect the highest emission reduction level possible.

In evaluating the beyond-the-floor option, we calculated the additional costs and emission reductions associated with the use of a capture system and RTO. We calculated the cost to reduce each ton of organic HAP emissions using the more stringent level of control. Requiring sources to meet the beyond-the-floor level would result in an estimated additional emissions reduction of 283 Mg/yr (312 tpy) at an estimated cost of $14.6 million per year or $51,600 per Mg HAP ($46,800 per ton HAP) reduced.

Without having information on the benefits that would be achieved by reducing emissions beyond-the-floor, we determined that the additional emission reductions that could be achieved do not warrant the costs that each affected source would incur by using add-on controls. Therefore, we are not requiring beyond-the-floor levels of emissions reductions at this time. After implementation of those standards, we will evaluate the health and environmental risks that may be posed as a result of exposure to emissions from the metal can surface coating source category. At that time, we will determine whether additional control is warranted in light of the available risk information.

We note here that our assumption, used in the development of the MACT floors, that 100 percent of the organic HAP in the materials used are emitted by the affected source would not apply when the source sends organic HAP waste materials to a facility for treatment or disposal. We made that assumption because the industry survey responses provided little information as to the amount of organic HAP recovered and recycled or treated and disposed of as a hazardous waste. We, therefore, concluded that the practice may not be common within the metal can surface coating industry. We recognize, however, that some metal can surface coating facilities may conduct such activities and should be allowed to account for such activities in determining their emissions. Thus, the proposed rule allows you to reduce the organic HAP emissions by the amount of any organic HAP contained in waste treated or disposed of at a hazardous waste treatment, storage, and disposal facility that is regulated under 40 CFR part 262, 264, 265, or 266.

The alternative capture/control efficiency limit of 95 percent for existing sources and 97 percent for new or reconstructed sources, and the 20 parts per million by volume HAP outlet concentration limit are based on the documented emission reductions in test reports provided by metal can facilities and the EPA's study of available incinerator technology, cost, and energy use. We are requesting specific comment on the usefulness and likelihood of the proposed alternative limits and the level of control required by the alternative limits.

E. How Did We Select the Format of the Standards?

We selected the primary format of the standards to be mass of HAP per volume of coating solids. We selected volume of coating solids to normalize the rate of organic HAP emissions across all sizes and types of coating operations and facilities. Volume of coating solids used is directly related to the surface area coated and, therefore, provides an equitable basis of comparison for all coatings, regardless of differences in coating densities. A format based on the mass or weight of coating solids instead of volume could result in inequitable standards for higher-density coatings compared to coatings with lower densities per unit volume.

To provide compliance flexibility, we also provided an alternative compliance option based on percent reduction achieved by a capture system and control device or the HAP concentration exiting a control device. We selected those alternative formats because they would achieve equivalent or greater HAP emissions reduction at those facilities using capture/control systems while reducing the recordkeeping and reporting burden for those facilities. Those alternative limits are based on test report data provided by industry and reflect what we believe to be the achievable level of control available with control devices commonly used by the metal can surface coating industry.

Another choice for the format of the standards that we considered but rejected was a usage limit (mass of HAP per unit of production). As it is not our intent to limit a facility's production under those proposed standards, we rejected a usage limit.

F. How Did We Select the Testing and Initial Compliance Requirements?

The MACT levels of control can be achieved in several different ways. Many affected sources would be able to use low- or no-HAP coatings, although they may not be available to meet all needs. If an affected source also uses thinners containing organic HAP, it may be able to switch to widely available low- or no-HAP thinners to reduce organic HAP emissions to the MACT level of control. Other affected sources may use capture systems and add-on control devices, either alone or in combination with low- HAP coatings, to reduce emissions.

Reflecting those alternative approaches, the proposed standards would allow you to choose among several options to demonstrate compliance with the proposed standards for organic HAP, using coatings and thinners with low- or no-organic HAP, using a combination of low- or no-HAP coatings and emission capture and control devices, or using emission capture and control devices for all surface coating operations.

For the Compliant Material Option. You would be required to document the organic HAP content of all coatings and show that each is less than the applicable emission limit. You would also have to show that each thinner used contains no organic HAP. Method 311 is the method developed by EPA for determining the mass fraction of organic HAP in coatings and has been used in previous surface coating NESHAP. We have not identified any other methods that provide advantages over Method 311 for use in the proposed standards.

Method 24 is the method developed by EPA for determining the mass fraction of volatile matter for coatings and can optionally be used to determine the nonaqueous volatile matter content as a surrogate for organic HAP. In past standards, volatile organic compound (VOC) emission control measures have been implemented in coating industries with Method 24 as the compliance method. We have not identified any other methods that provide advantages over Method 24 for use in the proposed standards.

The proposed methods for determining volume fraction of coating solids are either ASTM Method D2697–86(1998) or ASTM Method D6093–97. Those are voluntary consensus standards (VCS) determined to be appropriate for the proposed rule; they represent the consensus of coating industry and other experts involved in their development.

For the Emission Rate Without Add-On Controls Option. To demonstrate initial compliance using that option, you would calculate the total organic HAP emission rate for all of your coating operation(s) in each subcategory and coating type segment. Total organic HAP emission rate is based on the total mass of organic HAP in all coatings and thinners and the total volume of coating solids used during the initial compliance period. You would be required to demonstrate that the organic HAP emission rate does not exceed the applicable emission limit using the methods discussed previously.

For the Emission Rate With Add-On Controls Option. If you use a capture system and control device, other than a solvent recovery device for which you conduct a monthly liquid-liquid material balance, you would be required to conduct an initial performance test of the system to determine its overall control efficiency. For a solvent recovery system for which you conduct a liquid-liquid material balance, you would determine the quantity of volatile matter applied and the quantity recovered during the initial compliance period to determine its overall control efficiency. The total monthly mass of organic HAP in all coatings and thinners used in each subcategory or coating segment with controls would be reduced by the overall control efficiency. That reduced value for total mass of organic HAP would then be used with the values from the preceding 11 months to calculate the 12-month rolling average organic HAP emission rate in kg HAP/liter of coating solids (lb HAP/gal of coating solids).

If you conduct a performance test, you would also determine parameter operating limits during the test. The test methods that the proposed standards would require for the performance test have been required under many standards of performance for industrial surface coating sources under 40 CFR part 60 and NESHAP under 40 CFR part 63. We have not identified any other methods that provide advantages over those methods.

For the Capture Efficiency/Outlet Concentration Option. If you use a capture system and control device other than a solvent recovery device for which you conduct a monthly liquid-liquid material balance, you would be required to conduct an initial performance test of the system to determine its overall control efficiency or the control device outlet concentration and meet the same initial compliance requirements described in Option 3.

G. How Did We Select the Continuous Compliance Requirements?

To demonstrate continuous compliance with the emission limits, you would need records of the quantity of coatings and thinners used and the data and calculations supporting your determination of their organic HAP content. If you conduct liquid-liquid material balances, you would need records of the quantity of volatile matter used and the quantity recovered by the solvent recovery systems each month.

To ensure continuous compliance with the proposed organic HAP emission limits and operating limits, the proposed standards would require continuous parameter monitoring of capture systems and control devices and recordkeeping. We selected the following requirements based on reasonable cost, ease of execution, and usefulness of the resulting data to both the owners or operators and EPA for ensuring continuous compliance with the emission limits and operating limits.

We are proposing that certain parameters be continuously monitored for the types of capture systems and control devices commonly used in the industry. Those monitoring parameters have been used in other standards for similar industries. The values of those parameters that correspond to compliance with the proposed emission limits are established during the initial or most recent performance test that demonstrates compliance. Those values are your operating limits for the capture system and control device.

You would be required to determine 3-hour average values for most monitored parameters for the affected source. We selected that averaging period to reflect operating conditions during the performance test to ensure the control system is continuously operating at the same or better control level as during a performance test demonstrating compliance with the emission limits.

H. How Did We Select the Test Methods for Determining Compliance With the Emission Limits Using Add-On Control Devices?

Today's proposed rule would require you to conduct performance tests to demonstrate compliance with the compliance options using add-on control devices. When determining compliance with options using add-on control devices, you also would be required to determine the capture efficiency of the associated enclosures if the enclosure does not qualify as a PTE. The test methods you would have to use to measure those pollutants and capture

efficiency for enclosures are discussed below.

We are proposing the use of EPA Method 25A, ''Determination of Total Gaseous Organic Matter Concentration Using a Flame Ionization Analyzer,'' for measuring THC emissions because most of the metal can facilities that are already required to measure THC emissions use that method. Also, most of the available emissions data that we used to evaluate THC control efficiencies were measured using Method 25A and reported on an as carbon basis. Method 25A is better suited than EPA Method 25, ''Measurement of Total Gaseous Nonmethane Organic Emissions as Carbon (TGNMO),'' for measuring emission streams from metal can coating lines which typically have lower THC concentrations (less than 50 parts per million) and relatively high moisture contents. However, unlike Method 25, Method 25A does measure methane as a THC. Because many of the well-controlled metal can facilities are required by permit to reduce VOC emissions, those facilities generally are allowed to subtract methane emissions from the THC measurement when reporting VOC emissions because methane is not a VOC, according to EPA's definition of VOC. Therefore, we also would allow you to subtract methane emissions from measured THC values using EPA Method 18, ''Measurement of Gaseous Organic Compound Emissions by Gas Chromotography.'' Method 18 is a self-validating method.

We are proposing the use of EPA Method 204, ''Criteria for and Verification of Permanent or Temporary Total Enclosure,'' and Methods 204A through 204F for determining the capture efficiency of enclosures. Methods 204A through 204F include the following: Method 204A, ''Volatile Organic Compounds Content In Liquids Input Stream,'' Method 204B, ''Volatile Organic Compounds Emissions In Captured Stream,'' Method 204C, ''Volatile Organic Compounds Emissions In Captured Stream (Dilution Technique),'' Method 204D, ''Volatile Organic Compounds Emissions In Uncaptured Stream From Temporary Total Enclosure,'' Method 204E, ''Volatile Organic Compounds Emissions In Uncaptured Stream From Building Enclosure,'' and Method 204F, ''Volatile Organic Compounds Content In Liquid Input Stream (Distillation Approach).'' If the enclosure meets the criteria in EPA Method 204 for a PTE, then you may assume that its capture efficiency is 100 percent. If the enclosure is not a PTE, then you would have to build a temporary total enclosure (TTE) around it that meets the definition of a TTE in EPA Method 204, and you would be required to determine the capture efficiency of the TTE using Methods 204A through 204F (as appropriate). You would then have to measure emissions from both the control device and the TTE and use the combined emissions to determine compliance.

Industry representatives have expressed concern with using EPA Methods 204 and 204A through F for determining capture efficiency of coating line enclosures. The industry representatives have indicated that some facilities may have difficulty retrofitting a PTE or TTE that meets the EPA Method 204 criteria. Partial enclosures may be able to achieve high capture, but Methods 204 and 204A through F are the only available methods for testing the efficiency of partial enclosures. We recognize the need for flexibility in determination of capture efficiency for metal can coating line enclosures and welcome your comments on alternative approaches for determining capture efficiency. Today's proposed rule would allow facilities to petition the Administrator for use of alternative test methods.

I. How Did We Select Notification, Recordkeeping, and Reporting Requirements?

You would be required to comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63, as described in Table 5 of the proposed subpart KKKK. We evaluated the General Provisions requirements and included those we determined to be the minimum notification, recordkeeping, and reporting necessary to ensure compliance with and effective enforcement of the proposed standards, modifying them as appropriate for the metal can surface coating category.

IV. Summary of Environmental, Energy, and Economic Impacts

The proposed standards would affect 142 major source metal can surface coating facilities. The impacts are presented relative to a baseline reflecting the level of control prior to the standards. Due to consolidation throughout the industry, there is not expected to be any net growth within the metal can surface coating industry within the next 5 years. Therefore, the estimate of the impacts is presented for existing facilities only. For a facility that is already in compliance with the standards, only monitoring, recordkeeping, and reporting cost impacts were estimated. For more information on how impacts were estimated, see the BID (EPA–453/R–02–008).

The outcome of two delisting petitions that have been submitted to EPA could significantly affect the estimated impacts of this rulemaking. These petitions are the petition to delist EGBE from the HAP list and the petition to delist the two-piece beverage can subcategory from the source category list. Both petitions are being reviewed by the EPA. If granted, the delisting of either EGBE or the two-piece beverage can subcategory could affect the proposed emission limits and the number of affected sources. Thus, the estimated impacts of this proposed rule could change. Once decisions on the petitions are finalized, we will evaluate whether any changes to the proposed rule are appropriate.

A. What Are the Air Impacts?

The proposed emission limits are expected to reduce nationwide organic HAP emissions from existing major affected sources by approximately 6,160 Mg/yr (6,800 tpy). That represents a reduction of 71 percent from the baseline organic HAP emissions of 8,700 Mg/yr (9,600 tpy). Table 5 of this preamble gives a summary of the primary air impacts for major coating segment groupings associated with implementation of the proposed rule.

TABLE 5.—SUMMARY OF PRIMARY AIR IMPACTS BY SUBCATEGORY OR COATING SEGMENT FOR EXISTING SOURCES

Subcategory or or coating segment	Emissions before NESHAP, Mg/yr (tpy)	Emissions after NESHAP, Mg/yr (tpy)	Emissions reduction, Mg/yr (tpy)	Percent reduction
Two-piece D&I beverage can body coatings	4,468 (4,922)	1,644 (1,811)	2,824 (3,111)	63

TABLE 5.—SUMMARY OF PRIMARY AIR IMPACTS BY SUBCATEGORY OR COATING SEGMENT FOR EXISTING SOURCES—Continued

Subcategory or or coating segment	Emissions before NESHAP, Mg/yr (tpy)	Emissions after NESHAP, Mg/yr (tpy)	Emissions reduction, Mg/yr (tpy)	Percent reduction
Two-piece D&I food can body coatings	765 (843)	139 (153)	626 (690)	82
One-piece D&I aerosol can body coatings	16 (18)	16 (18)	0 (0)	0
Sheetcoatings	2,289 (2,522)	404 (445)	1,885 (2,077)	82
Three-piece food can assembly coatings	370 (408)	285 (314)	85 (94)	23
Three-piece non-food can assembly coatings	45 (50)	38 (42)	6 (7)	14
End lining coatings	763 (841)	34 (38)	729 (803)	95
Total	8,718 (9,603)	2,560 (2,820)	6,158 (6,783)	71

B. What Are the Cost Impacts?

Cost impacts include the costs of recordkeeping and reporting, capital equipment costs, performance testing costs, and material costs as facilities comply with the proposed rule. Recordkeeping and reporting includes all labor hours related to the tracking of coating usage, the cost of purchasing computer equipment, the labor hours required to write and submit reports, and the labor hours required to train coating personnel. Capital equipment costs for the facilities that choose to use capture equipment and add-on control devices to comply with the proposed rule include the purchase, installation, and operation of the equipment. Performance testing costs for the facilities that choose to use add-on control devices to comply with the standards include the labor hours required for a contractor to conduct performance testing on each control device used and to develop the associated reports for recordkeeping and reporting purposes.

Material costs include the cost of switching to low- or no-HAP coatings. For facilities that choose to use low- or no-HAP coatings to comply with the standards, coatings with lower HAP content are considered more expensive than higher HAP content coatings.

The total annualized costs for the 142 existing major sources are estimated at $56.2 million. Those estimates are broken down as follows; monitoring, recordkeeping, and reporting costs would contribute $7.3 million to the overall cost of the NESHAP, material costs would contribute $4.1 million, and capital equipment costs would contribute $44.8 million annually.

C. What Are the Economic Impacts?

We performed an EIA to provide an estimate of the facility and market impacts of the proposed standards as well as the social costs. The goal of the EIA is to estimate the market response of the metal can coating and production facilities to the proposed regulation and to determine the economic effects that may result due to this NESHAP. The metal can source category contains 189 potentially affected facilities that may be affected by the proposed rule. The potentially affected companies are owned by 30 companies. The NAICS code that describes the metal can manufacturing industry is 332431, Metal Can Manufacturing.

Metal can production leads to potential HAP emissions during the can coating process when high concentrations of organic HAP solvents are used and dispersed. Emissions are generated during coating application, during transportation to the oven (evaporation), and during curing. The compliance costs are associated with chemical substitution during the coating process, the installation of pollution control equipment, and recordkeeping and reporting activities. The estimated total annualized costs for the NESHAP are $56.2 million per year divided across 142 major source facilities.

In terms of industry impacts, metal can producers experience a total projected decrease of $16 million in pre-tax earnings which reflects the compliance costs associated with the production of metal cans and the resulting reductions in revenues due to the increase in the prices of the directly affected product markets and reduced quantities purchased. Through the market impacts described above, the proposed rule will create both gainers and losers within the metal can industry. Approximately one-third of the modeled facilities experience an increase in pre-tax earnings as a result of increases in price that exceed their compliance costs per unit. In contrast, the remaining two-thirds of metal can facilities experience losses in pre-tax earnings. In addition, the EIA indicates that none of the facilities within the metal can market (not including small businesses) are at risk of closure because of the proposed standards. Overall employment is projected to decrease by 176 employees, which represents a decrease of $^{8}/_{10}$th of one percent as a result of the proposed rule.

Based on the market analysis, the total social cost of the proposed rule is projected to be $53.5 million. The estimated social costs differ slightly from the projected engineering costs because social costs account for producer and consumer behavior. Consumers are projected to lose $33.3 million or 60 percent of the total social costs of the proposed rule. Producers will lose $20.2 million, or 40 percent of the total social costs. For more information, consult the EIA report supporting the proposed rule, ''Economic Impact Analysis of Metal Can MACT Standards'' (EPA–452/R–02–005).

D. What Are the Non-Air Health, Environmental, and Energy Impacts?

Based on information from the industry survey responses, we found no indication that the use of low or no-organic HAP content coatings and thinners at existing sources would result in any increase or decrease in non-air health, environmental, and energy

impacts. There would be no change in utility requirements associated with the use of these materials so there would be no change in the amount of energy consumed as a result of the material conversion. Also, there would be no significant change in the amount of materials used or the amount of waste produced.

Since many facilities in the D&I can body coating and sheetcoating subcategories currently use add-on emission control devices to meet existing requirements, we anticipate that facilities in those subcategories would use add-on controls to comply with the proposed standards. Secondary air and energy impacts would result from fuel combustion needed to operate these control devices which are expected to be RTO.

The RTO require electricity and the combustion of natural gas to operate and maintain operating temperatures. By-products of fuel combustion required to generate electricity and maintain RTO operating temperature include emission of carbon monoxide, nitrogen oxides, sulfur dioxide, and particulate matter less than 10 microns in diameter (PM_{10}). Assuming the electricity required for RTO operation is generated at coal-fired plants built since 1978 and using air pollution-42 emissions factors, generation of electricity required to operate RTO at all affected D&I can body coating and sheetcoating facilities would result in the following increases in the following air pollutants: carbon monoxide, 81 tpy; nitrogen oxides, 182 tpy; sulfur dioxide, 438 tpy; and PM_{10}, 86 tpy.

Energy impacts include the consumption of electricity and natural gas needed to operate RTO. The estimated increase in electricity consumption from the operation of RTO at all D&I can body coating and sheetcoating facilities is 36,730,000 kilowatt hours per year. Increased fuel energy consumption resulting from burning natural gas would be 1,197,000 megamillion British thermal units per year. No significant secondary water or solid waste impacts would result from the operation of emission control devices.

V. Administrative Requirements

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is ''significant'' and, therefore, subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligation of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that the proposed rule is not a ''significant regulatory action'' under the terms of Executive Order 12866 and is, therefore, not subject to OMB review.

B. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045, ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The proposed rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks.

C. Executive Order 13132, Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include rules that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

The proposed rule does not have federalism implications. It would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, Executive Order 13132 does not apply to the proposed rule. Although section 6 of Executive Order 13132 does not apply to the proposed rule, EPA did consult with State and local officials to enable them to provide timely input in the development of the proposed rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on the proposed rule from State and local officials.

D. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' The proposed rule does not have tribal implications, as specified in Executive Order 13175. No tribal governments own or operate metal can surface coating operations. Thus, Executive Order 13175 does not apply to the proposed rule.

E. Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

The proposed rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

F. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub. L. 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local,

and tribal governments and the private sector. Under Section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the proposed rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annualized cost of the proposed rule for any year has been estimated to be less than $56.2 million. Thus, today's proposed rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, the EPA has determined that the proposed rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, today's proposed rule is not subject to the requirements of section 203 of UMRA.

G. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601, et seq.

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the EPA certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small business, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's proposed rule on small entities, small entity is defined as: (1) A small business according to the Small Business Administration (SBA) size standards by NAICS code; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

In accordance with the RFA, EPA conducted an assessment of the proposed standards on small businesses within the metal can industry. Based on SBA NAICS-based size definitions and reported sales and employment data, EPA identified 13 small business, or 43.3 percent of the metal can companies. Small businesses are expected to incur only 2 percent of the total industry annualized compliance costs of $56.2 million. The EPA estimates that 10 of the 13 small businesses will experience an impact less than 1 percent of total company sales, two small firms will experience impacts between 1 and 3 percent, and one firm will experience an impact of more than 3 percent of sales. Consequently, one of the 15 facilities owned by small businesses is likely to prematurely close as a result of the proposed rule. For more information, consult the EIA report entitled ''Economic Impact Analysis for the Proposed Metal Can NESHAP'' in Docket A–98–41.

After considering the economic impact of today's proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities.

H. Paperwork Reduction Act

The information collection requirements in the proposed rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 2079–01) and a copy may be obtained from Susan Auby by mail at the U.S. EPA, Collection Strategies Division (2822T), 1200 Pennsylvania Avenue, NW., Washington, DC 20460, by email at *auby.susan@epa.gov*, or by calling (202) 566–1672. A copy may also be downloaded off the internet at *http://www.epa.gov/icr*.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A) which are mandatory for all operators subject to national emission standards. Those recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA policies set forth in 40 CFR part 2, subpart B.

The proposed standards would require maintaining records of all coating and thinning materials data and calculations used to determine compliance. That information includes the amount (kg) used during each 12-month compliance period, mass fraction organic HAP, and, for coating materials only, mass fraction of solids.

If an add-on control device is used, records must be kept of the capture efficiency of the capture system, destruction or removal efficiency of the add-on control device, and the monitored operating parameters. In addition, records must be kept of each calculation of the affected sourcewide emissions for each monthly and rolling 12-month compliance period and all data, calculations, test results, and other supporting information used to determine this value. The recordkeeping requirements are only for the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the promulgated rule) is estimated to be approximately 1,815 labor hours per year at a total annual cost of $545,000. That estimate includes a one-time performance test and report (with repeat tests where needed); one-time submission of a SSMP with semiannual reports for any event when the procedures in the plan were not followed; semiannual compliance status reports; and recordkeeping. There are no

capital/startup costs associated with the monitoring requirements.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. That includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's rules are listed in 40 CFR part 9 and 48 CFR chapter 15.

Comments are requested on the EPA's need for the information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. By U.S. Postal Service, send comments on the ICR to the Director, Collection Strategies Division, U.S. EPA (2822T), 1200 Pennsylvania Avenue, NW., Washington, DC 20460; or by courier, send comments on the ICR to the Director, Collection Strategies Division, U.S. EPA (2822T), 1301 Constitution Avenue, NW., Room 6143, Washington, DC 20460 ((202) 566–1700)), marked ''Attention: Desk Officer for EPA.'' Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after January 15, 2003, a comment to OMB is best assured of having its full effect if OMB receives it by February 14, 2003. The final rule will respond to any OMB or public comments on the information collection requirements contained in the proposal.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, § 12(d) (15 U.S.C. 272 note) directs EPA to use VCS in their regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The VCS are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

This proposed rulemaking involves technical standards. The EPA cites the following standards in this rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 24, 25, 25A, 204, 204A through F, and 311. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to these EPA methods/performance specifications. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 204, 204A through 204F, and 311. The search and review results have been documented and are placed in the docket (A–98–41) for the proposed rule.

Three VCS described below were identified as acceptable alternatives to EPA test methods for the purposes of the proposed rule.

The VCS ASME PTC 19–10–1981–Part 10, ''Flue and Exhaust Gas Analyses,'' is cited in the proposed rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. That part of ASME PTC 19–10–1981–Part 10 is an acceptable alternative to Method 3B.

The two VCS, ASTM D2697–86 (Reapproved 1998), ''Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings'' and ASTM D6093–97, ''Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer,'' are cited in the proposed rule as acceptable alternatives to EPA Method 24 to determine the volume fraction of coating solids. Currently, EPA Method 24 does not have a procedure for determining the volume of solids in coatings. Those standards augment the procedures in Method 24, which currently states that volume solids content be calculated from the coating manufacturer's formulation.

Six VCS: ASTM D1475–90, ASTM D2369–95, ASTM D3792–91, ASTM D4017–96a, ASTM D4457–85 (Reapproved 91), and ASTM D5403–93 are already incorporated by reference (IBR) in EPA Method 24. *Five VCS:* ASTM D1979–91, ASTM D3432-89, ASTM D4747–87, ASTM D4827–93, and ASTM PS9–94 are IBR in EPA Method 311.

In addition to the VCS EPA uses in the proposed rule, the search for emissions measurement procedures identified 14 other VCS. The EPA determined that 11 of those 14 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the proposed rule were impractical alternatives to EPA test methods for the purposes of the proposed rule. Therefore, EPA does not intend to adopt those standards for that purpose. The reasons for the determination for the 11 methods are discussed below.

The VCS ASTM D3154–00, ''Standard Method for Average Velocity in a Duct (Pitot Tube Method),'' is impractical as an alternative to EPA Methods 1, 2, 2C, 3, 3B, and 4 for the purposes of the proposed rulemaking since the standard appears to lack in quality control and quality assurance requirements. Specifically, ASTM D3154–00 does not include the following: (1) Proof that openings of standard pitot tube have not plugged during the test, (2) if differential pressure gauges other than inclined manometers (*e.g.*, magnehelic gauges) are used, their calibration must be checked after each test series, and (3) the frequency and validity range for calibration of the temperature sensors.

The VCS ASTM D3464–96 (2001), ''Standard Test Method Average Velocity in a Duct Using a Thermal Anemometer,'' is impractical as an alternative to EPA Method 2 for the purposes of the proposed rulemaking primarily because applicability specifications are not clearly defined, *e.g.*, range of gas composition, temperature limits. Also, the lack of supporting quality assurance data for the calibration procedures and specifications, and certain variability issues that are not adequately addressed by the standard limit EPA's ability to make a definitive comparison of the method in those areas.

*The VCS ISO 10780:*1994, ''Stationary Source Emissions-Measurement of Velocity and Volume Flowrate of Gas Streams in Ducts,'' is impractical as an alternative to EPA Method 2 in the proposed rulemaking. The standard recommends the use of an L-shaped pitot which historically has not been recommended by EPA. The EPA specifies the S-type design which has large openings that are less likely to plug up with dust.

The VCS, CAN/CSA Z223.2–M86(1986), ''Method for the Continuous Measurement of Oxygen, Carbon Dioxide, Carbon Monoxide, Sulphur Dioxide, and Oxides of Nitrogen in Enclosed Combustion Flue Gas Streams,'' is unacceptable as a substitute for EPA Method 3A since it does not include quantitative specifications for measurement system performance, most notably the calibration procedures and instrument performance characteristics.

The instrument performance characteristics that are provided are nonmandatory and also do not provide the same level of quality assurance as the EPA methods. For example, the zero and span/calibration drift is only checked weekly, whereas the EPA methods require drift checks after each run.

Two very similar standards, ASTM D5835–95, ''Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration,'' and ISO 10396:1993, ''Stationary Source Emissions: Sampling for the Automated Determination of Gas Concentrations,'' are impractical alternatives to EPA Method 3A for the purposes of the proposed rulemaking because they lack in detail and quality assurance/quality control requirements. Specifically, those two standards do not include the following: (1) Sensitivity of the method, (2) acceptable levels of analyzer calibration error, (3) acceptable levels of sampling system bias, (4) zero drift and calibration drift limits, time span, and required testing frequency, (5) a method to test the interference response of the analyzer, (6) procedures to determine the minimum sampling time per run and minimum measurement time, and (7) specifications for data recorders in terms of resolution (all types) and recording intervals (digital and analog recorders only).

*The VCS ISO 12039:*2001, ''Stationary Source Emissions—Determination of Carbon Monoxide, Carbon Dioxide, and Oxygen—Automated Methods,'' is not acceptable as an alternative to EPA Method 3A. The ISO standard is similar to EPA Method 3A, but is missing some key features. In terms of sampling, the hardware required by ISO 12039:2001 does not include a three-way calibration valve assembly or equivalent to block the sample gas flow while calibration gases are introduced. In its calibration procedures, ISO 12039:2001 only specifies a two-point calibration while EPA Method 3A specifies a three-point calibration. Also, ISO 12039:2001 does not specify performance criteria for calibration error, calibration drift, or sampling system bias tests, as in the EPA method, although checks of those quality control features are required by the ISO standard.

The VCS ISO 11890–1 (2000) Part 1, ''Paints and Varnishes—Determination of Volatile Organic Compound (VOC) Content—Difference Method,'' is impractical as an alternative to EPA Method 24 because measured nonvolatile matter content can vary with experimental factors such as temperature, length of heating period, size of weighing dish, and size of sample. The standard ISO 11890–1 allows for different dish weights and sample sizes than the one size (58 millimeters in diameter and sample size of 0.5 gram) of EPA Method 24. The standard ISO 11890–1 also allows for different oven temperatures and heating times depending on the type of coating, whereas EPA Method 24 requires 60 minutes heating at 110 degrees Celsius at all times. Because the EPA Method 24 test conditions and procedures define volatile matter, ISO 11890–1 is unacceptable as an alternative because of its different test conditions.

The VCS ISO 11890–2 (2000) Part 2, ''Paints and Varnishes—Determination of Volatile Organic Compound (VOC) Content—Gas Chromatographic Method,'' is impractical as an alternative to EPA Method 24 because ISO 11890–2 only measures the VOC added to the coating and would not measure any VOC generated from the curing of the coating. The EPA Method 24 does measure cure VOC, which can be significant in some cases, and, therefore, ISO 11890–2 is not an acceptable alternative to this EPA method.

Two VCS, EN 12619:1999 ''Stationary Source Emissions—Determination of the Mass Concentration of Total Gaseous Organic Carbon at Low Concentrations in Flue Gases—Continuous Flame Ionization Detector Method'' and ISO 14965:2000(E) ''Air Quality—Determination of Total Nonmethane Organic Compounds—Cryogenic Preconcentration and Direct Flame Ionization Method,'' are impractical alternatives to EPA Method 25 and 25A for the purposes of the proposed rulemaking because the standards do not apply to solvent process vapors in concentrations greater than 40 ppm (EN 12619) and 10 ppm carbon (ISO 14965). Methods whose upper limits are that low are too limited to be useful in measuring source emissions, which are expected to be much higher.

Three of the 14 VCS identified in the search were not available at the time the review was conducted for the purposes of the proposed rule because they are under development by a VCS body: ASME/BSR MFC 13M, ''Flow Measurement by Velocity Traverse,'' for EPA Method 2 (and possibly 1); ASME/BSR MFC 12M, ''Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters,'' for EPA Method 2; and ISO/CD 17895, ''Paints and Varnishes—Determination of the Volatile Organic Compound Content of Water-based Emulsion Paints,'' for EPA Method 24.

Listed in 40 CFR 63.3541, 63.3551, 63.3561, 63.3564, 63.3565, 63.3566, 63.3571, 63.3574, 63.3575, and 63.3576 to subpart KKKK of the proposed standards are the EPA testing methods included in the regulation. Under 40 CFR 63.7(f) and 40 CFR 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: November 26, 2002.

Christine Todd Whitman,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is proposed to be amended as follows:

PART 63—[AMENDED]

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

2. Part 63 is amended by adding subpart KKKK to read as follows:

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

Sec.

What this Subpart Covers

Emission Limitations

General Compliance Requirements

Notifications, Reports, and Records

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 sheet coating 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, non-aseptic side seam stripes on food cans, side seam stripes on general line non-food cans, and side seam stripes on aerosol non-food cans.

(4) *End lining.* The end lining subcategory includes the application of end seal compounds to metal can ends. That subcategory includes two distinct coating type segments reflecting the end seal compounds appropriate for can ends with different end uses. Those are aseptic end seal compounds and non-aseptic end seal compounds.

(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 surface coating of metal cans or ends (including decorative tins) or metal crowns or closures 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 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 § 63.3541(a).

(2) Surface coating subject to any other NESHAP in this part as of [date of publication of the final rule in the **Federal Register**].

(3) Surface coating that occurs at research or laboratory facilities or that is 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. Subpart MMMM of this part covers surface coating of all metal parts and products not explicitly covered by another subpart.

§ 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 within each subcategory:

(1) All coating operations as defined in § 63.3581;

(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 it meets the criteria in paragraph (c)(1) of this section and the criteria in either paragraph (c)(2) or (3) of this section.

(1) You commenced construction of the source after January 15, 2003 by installing new coating equipment.

(2) The new coating equipment is used to perform metal can surface coating at a facility where no metal can surface coating was previously performed.

(3) The new coating equipment is used to perform metal can surface coating in a subcategory at a facility where no surface coating in that subcategory was previously performed.

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

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

§ 63.3483 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 §§ 63.3540, 63.3550, 63.3560, and 63.3570.

(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 [date of publication of final rule in the **Federal Register**], the compliance date is [date of publication of final rule in the **Federal Register**].

(2) If the initial startup of your new or reconstructed affected source occurs after [date of publication of final rule in the **Federal Register**], the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is [date 3 years after date of publication of final rule in the **Federal Register**].

(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 [date of publication of final rule in the **Federal Register**], 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 [date 3 years after date of publication of final rule in the **Federal Register**], 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 §§ 63.3541, 63.3551, or 63.3561 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 § 63.3571. 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 §§ 63.3541, 63.3551, or 63.3561 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 § 63.3571. 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, 63.3520, and 63.3530, 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 § 63.3530(c) and you must report it in the next semiannual compliance report required in § 63.3520.

(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 §§ 63.3540, 63.3541, and 63.3542 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 §§ 63.3550, 63.3551, and 63.3552 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 that compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in § 63.3492, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3561(j), and that you meet the work practice standards required in § 63.3493. You must meet all the requirements of §§ 63.3560 through 63.3568 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 that compliance option, you must have a capture device that meets EPA Method 204 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) 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 §§ 63.3570 through 63.3578 to demonstrate compliance with the emission limits, operating limits, and work practice standards using that 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 § 63.3561(j), you must meet the operating limits specified in Table 4 to this subpart. Those operating limits apply to the emission capture and control systems on the coating operation(s) for which you use the options. You must establish the operating limits during the performance test according to the requirements in § 63.3567 or § 63.3577, and you must meet the operating limits at all times after you establish them.

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

§ 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 (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 § 63.3561(j).

(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 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 and implement 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.

§ 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 [date of publication of final rule in the **Federal Register**], whichever is later. For an existing affected source, you must submit the Initial Notification no later than [date 1 year after date of publication of final rule in the **Federal Register**].

(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 §§ 63.3540, 63.3550, 63.3560, or 63.3570 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 §§ 63.3540, 63.3550, 63.3560, or 63.3570 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 of 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 § 63.3541(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 § 63.3551.

(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 § 63.3541.

(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 through 1C, 2, and 3, respectively, of § 63.3551.

(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 and 1A through 1C of § 63.3551; the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3551; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices, using Equations 1 and 1A through 1D of § 63.3561, and Equations 2, 3, and 3A through 3C of § 63.3561, as applicable; the calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3561, as applicable; and the calculation of the 12-month organic HAP emission rate, using Equation 5 of § 63.3561.

(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 § 63.3561(j).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a 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.

§ 63.3520 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 § 63.3540, § 63.3550, § 63.3560, or § 63.3570 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 § 63.3541) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation, for example, 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, for example, 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 through 1C, 2, and 3 in § 63.3551; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3551(e)(4). You do not need to submit background data supporting these calculations, for example, 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 and 1A through 1C of § 63.3551 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3551(e)(4); the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3551; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices, using Equations 1 and 1A through 1D of § 63.3561, and Equations 2, 3, and 3A through 3C of § 63.3561, as applicable; the calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3561; and the calculation of the 12-month organic HAP emission rate, using Equation 5 of § 63.3561. 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 includes 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 of 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 of 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 of this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(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.

(xii) 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 plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in § 63.10(d)(5)(ii). The letter must contain the information specified in § 63.10(d)(5)(ii).

§ 63.3530 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 documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP 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 § 63.3541.

(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 through 1C, and 2 of § 63.3551 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3551(e)(4); the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3551; and the calculation of each 12-month organic HAP emission rate, using Equation 3 of § 63.3551.

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

(i) The calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1 and 1A through 1C of § 63.3551 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3551(e)(4).

(ii) The calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3551.

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices, using Equations 1 and 1A through 1D of § 63.3561, and Equations 2, 3, and 3A through 3C of § 63.3561, as applicable.

(iv) The calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3561.

(v) The calculation of each 12-month organic HAP emission rate, using Equation 5 of § 63.3561.

(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 § 63.3551 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to § 63.3551(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of § 63.3551, 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 § 63.3551.

(3) The methodology used in accordance with § 63.3551(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month and the methodology to determine the mass of organic HAP contained in these waste materials. 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) [Reserved]

(j) You must keep records of the date, time, and duration of each deviation.

(k) 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 (k)(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 § 63.3565(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 §§ 63.3564 and 63.3565(b) through (e) including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or 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 § 63.3565(e) if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.3566 or § 63.3576.

(i) Records of each add-on control device performance test conducted according to § 63.3564 or § 63.3574 and § 63.3566 or § 63.3576.

(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 § 63.3567 or § 63.3577 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.

§ 63.3531 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

§ 63.3540 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 § 63.3541. 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. The initial compliance demonstration includes the calculations according to § 63.3541 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 that you used no thinners that contained organic HAP.

§ 63.3541 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, sheet coating, three-piece can body assembly coating, and end lining 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.

(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 (for example, 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 (for example, 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.

(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 (40 CFR part 63, appendix A) 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) or D6093–97 to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *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 D1475–98 or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475–98 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 HAP content, kg organic HAP per liter coating solids, of each coating used during the compliance period, using Equation 1 of this section.

$$H_c = \frac{(D_c)(W_c)}{V_s} \qquad \text{(Eq. 1)}$$

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 §§ 63.3530 and 63.3531. 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.

§ 63.3542 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 § 63.3541, exceeds the applicable emission limit in § 63.3490 and use no thinner that contains organic HAP, determined according to § 63.3541(a). 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.

(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 63.3520(a)(5).

(c) As part of each semiannual compliance report required by § 63.3520, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the emission limitations 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 or cleaning material that contained organic HAP, determined according to § 63.3541(a).

(d) You must maintain records as specified in §§ 63.3530 and 63.3531.

Compliance Requirements for the Emission Rate Without Add-On Controls Option

§ 63.3550 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 § 63.3551. 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. 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 § 63.3551 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.

§ 63.3551 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, sheet coating, three-piece can body assembly coating, and end lining 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 include 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.

(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 § 63.3541(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 § 63.3541(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 D1475–98, 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 D1475–98 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 waste materials. Calculate it using Equation 1 of this section.

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

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 for treatment or disposal during the month, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the mass of organic HAP in the coatings used during the month, using Equation 1A of this section.

$$A = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

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

$Vol_{c,i}$ = total volume of coating, i, used during the month, liters.

$D_{c,i}$ = density of coating, i, kg coating per liter coating.

$W_{c,i}$ = mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

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.

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

Where:

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

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

$D_{t,j}$ = density of thinner, j, kg per liter.
$W_{t,j}$ = mass fraction of organic HAP in thinner, j, kg 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 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. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document the methodology you used to determine the amount of waste materials and the total mass of organic HAP they contain as required in § 63.3530(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.

$$V_{st} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(V_{s,i}\right) \qquad \text{(Eq. 2)}$$

Where:

V_{st} = total volume of coating solids used during the month, liters.
$Vol_{c,i}$ = total volume of coating, i, used during the month, liters.
$V_{s,i}$ = volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to § 63.3541(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.

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

Where:

H_{yr} = organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids.
H_e = 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 §§ 63.3530 and 63.3531. 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.

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

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

You must use the OSEL determined by Equation 4 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 §§ 63.3530 and 63.3531. 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.

§ 63.3552 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 § 63.3551(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 § 63.3551(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 § 63.3550 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.4551(a) through (g) on a monthly basis using data from the previous 12 months of operation.

(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 according to § 63.3551(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 63.3520(a)(6).

(c) As part of each semiannual compliance report required by § 63.3520, 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 § 63.3551(a) through (g), or using the OSEL calculated according to § 63.3551(i).

(d) You must maintain records as specified in §§ 63.3530 and 63.3531.

Compliance Requirements for the Emission Rate With Add-On Controls Option

§ 63.3560 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 § 63.3561(j), you must conduct a performance test of each capture system and add-on control device according to §§ 63.3564, 63.3565, and 63.3566 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 § 63.3561(j), you must initiate the first material balance 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 § 63.3561. 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 §§ 63.3564, 63.3565, and 63.3566, results of liquid-liquid material balances conducted according to § 63.3561(j), calculations according to § 63.3561 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 § 63.3568, 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 do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in § 63.3561(j).

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

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3561(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.3564, 63.3565, and 63.3566 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 § 63.3561(j), 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 § 63.3561. 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 §§ 63.3564, 63.3565, and 63.3566, results of liquid-liquid material balances conducted according to § 63.3561(j), calculations according to § 63.3561 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 § 63.3568, and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

§ 63.3561 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, sheet coating, three-piece can body assembly coating, and end lining 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 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.* Except as provided in § 63.3560(a)(4) and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of § 63.3561(j), 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 §§ 63.3567 and 63.3568.

(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 § 63.3530.

(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 § 63.3551(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 § 63.3551, 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 organic 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. Equation 1 of this section accounts for any period of time a deviation specified in § 63.3563(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction during which you must assume zero efficiency for the emission capture system and add-on control device.

$$H_c = (A_c + B_c - R_w\left(\frac{CE}{100} \times \frac{DRE}{100}\right)\left(\frac{T_{op} - T_{dev}}{T_{op}}\right) \qquad \text{(Eq. 1)}$$

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.

R_W = total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg, determined according to § 63.3551(e)(4).

CE = capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.3564 and 63.3565 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 §§ 63.3564 and 63.3566 to measure and record the organic HAP destruction or removal efficiency.

T_{op} = total time period of operation of controlled coating operation during the month, hours.

T_{dev} = total time period of deviations for controlled coating operation during the month, hours.

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

$$A_C = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

A_C = total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$Vol_{c,i}$ = total volume of coating, i, used during the month, liters.

$D_{c,i}$ = density of coating, i, kg per liter.

$W_{c,i}$ = mass fraction of organic HAP in coating, i, kg per kg.

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.

$$B_C = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 1B)}$$

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.

(i) [Reserved]

(j) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings 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 (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ± 2.0 percent of the mass of volatile organic matter recovered.

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

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

(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 § 63.3551(c).

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

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

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

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.

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

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 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.

$$A_{CSR} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 3A)}$$

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.

$Vol_{c,i}$ = 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.

$$B_{CSR} = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 3B)}$$

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.

$Vol_{t,j}$ = 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.

(k) *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 § 63.3551.

(l) *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.

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

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.

$H_{C,i}$ = 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.

(m) *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.

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

Where:

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

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

$V_{st,y}$ = total volume of coating solids used during month, y, liters, from Equation 2 of § 63.3551.

y = identifier for months.

(n) *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 §§ 63.3530 and 63.3531. 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 (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 and you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493.

§ 63.3562 [Reserved]

§ 63.3563 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 § 63.3561, must be equal to or less than the applicable emission limit in § 63.3490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3560 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3561 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 63.3520(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 63.3520(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. For the purposes of completing the compliance calculations specified in § 63.3561(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 § 63.3561.

(d) You must meet the requirements for bypass lines in § 63.3568(b) for controlled coating operations for which you do not conduct 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 63.3520(a)(7). For the purposes of completing the compliance calculations specified in §§ 63.3561(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 § 63.3561.

(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 § 63.3530(k)(8), that is a deviation from the work practice standards that must be reported as specified in §§ 63.3510(b)(6) and 63.3520(a)(7).

(f) As part of each semiannual compliance report required in § 63.3520, 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) During periods 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, you must operate in accordance with the SSMP required by § 63.3500(c).

(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 the SSMP. The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations according to the provisions in § 63.6(e).

(i) [Reserved]

(j) You must maintain records as specified in §§ 63.3530 and 63.3531.

§ 63.3564 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3560 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 § 63.3565. You must conduct each performance test of an add-on control device according to the requirements in § 63.3566.

§ 63.3565 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 § 63.3560.

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

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings and thinners used in the coating operation are applied within the capture system and coating solvent flash-off and coating, curing, and drying

occurs within the capture system. For example, 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, which includes surface preparation activities and drying or curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a 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 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.

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

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 E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the 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.

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

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

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 the 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.

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

Where:

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

$TVH_{captured}$ = total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg, determined according to paragraph (d)(2) of this section.

$TVH_{uncaptured}$ = 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 (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 in appendix A to subpart KK of this part.

§ 63.3566 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 § 63.3560. 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.''

(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 parts per million (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-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.

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

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 (dscm/h).

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

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

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

Where:

DRE = organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.3567 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 § 63.3560 and described in §§ 63.3564, 63.3565, and 63.3566, 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 just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) 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 just before 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 just before 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 § 63.3566.

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

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

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

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

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

(2) Use the data collected during the performance test to calculate and record

the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the maximum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.3565(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 4 to this subpart.

(1) During the capture efficiency determination required by § 63.3560 and described in §§ 63.3564 and 63.3565, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

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

§ 63.3568 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

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

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

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

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

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

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

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.3520.

(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 in the gas stream immediately before the catalyst bed, and if you establish operating limits according to § 63.3567(b)(1) and (2), also install a gas temperature monitor in the gas stream immediately after the catalyst bed.

(i) If you establish operating limits according to § 63.3567(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 immediately before and after the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to § 63.3567(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 immediately before 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 (vii) of this section for each gas temperature monitoring device.

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

(ii) Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.

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

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

(v) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.

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

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

(d) *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 a measurement sensitivity of plus or minus 10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a measurement sensitivity of 1 percent of the temperature recorded or 1 degree Fahrenheit, whichever is greater, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

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

(1) The gas temperature monitor must have a measurement sensitivity of 1 percent of the temperature recorded or 1 degree Fahrenheit, whichever is greater.

(2) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(f) *Concentrators.* If you are using a concentrator such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (f)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(iv) Check the pressure tap daily.

(v) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(vi) Conduct calibration checks anytime the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vii) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(g) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (iv) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that

provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Check pressure tap pluggage daily.

(iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vi) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

Compliance Requirements for the Control Efficiency/Outlet Concentration Option

§ 63.3570 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 §§ 63.3574, 63.3575, and 63.3576 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 § 63.3571. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the twelfth 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 § 63.3574, 63.3575, and 63.3576, the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3578, 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.

(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 § 63.3571. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the twelfth 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 §§ 63.3574, 63.3575, and 63.3576, the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3578, and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

§ 63.3571 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, sheet coating, three-piece can body assembly coating, and end lining affected source.

(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 §§ 63.3577 and 63.3578.

(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 § 63.3530.

(d) *Compliance demonstration.* To demonstrate initial compliance, you must keep all records applicable to the control efficiency/outlet concentration option as required by §§ 63.3530 and 63.3531. 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 (were) 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.

§ 63.3572 [Reserved]

§ 63.3573 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 § 63.3570 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 63.3520(a)(7).

(c) You must meet the requirements for bypass lines in § 63.3578(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 63.3520(a)(7).

(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 § 63.3530(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§ 63.3510(b)(6) and 63.3520(a)(7).

(e) As part of each semiannual compliance report required in § 63.3520, 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 work practice standards required by § 63.3493 during each compliance period.

(f) During periods of startup, shutdown, or malfunctions of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the SSMP required by § 63.3500(c).

(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 the SSMP. 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 §§ 63.3530 and 63.3531.

§ 63.3574 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3570 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 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 § 63.3575. You must conduct each performance test of an add-on control device according to the requirements in § 63.3576.

§ 63.3575 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.

§ 63.3576 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 § 63.3570. 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.''

(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.

(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.

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

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/m ^{3}) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

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

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

Where:

DRE = organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.3577 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 § 63.3570 and described in §§ 63.3574, 63.3575, and 63.3576, 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 just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. Those are the minimum operating limits 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 just before 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 just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e,* conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures.

(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 § 63.3576.

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

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

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

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

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at

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

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the maximum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems.* For each capture device that is part of a PTE that meets the criteria of § 63.3575, the operating limit for a PTE is specified in Table 4 to this subpart.

§ 63.3578 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

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

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

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

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

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

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

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.3520.

(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 in the gas stream immediately before the catalyst bed and if you establish operating limits according to § 63.3577(b)(1) and (2), also install a gas temperature monitor in the gas stream immediately after the catalyst bed.

(i) If you establish operating limits according to § 63.3577(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 immediately before and after the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to § 63.3577(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 immediately before 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 (vii) of this section for each gas temperature monitoring device.

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

(ii) Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.

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

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

(v) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.

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

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

(d) *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 a measurement sensitivity of plus or minus 10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a measurement sensitivity of 1 percent of the temperature recorded or 1 degree Fahrenheit, whichever is greater, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

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

(1) The gas temperature monitor must have a measurement sensitivity of 1 percent of the temperature recorded or 1 degree Fahrenheit, whichever is greater.

(2) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(f) *Concentrators.* If you are using a concentrator such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (f)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(iv) Check the pressure tap daily.

(v) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(vi) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vii) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(g) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (iv) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Check pressure tap pluggage daily.

(iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vi) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

Other Requirements and Information

§ 63.3580 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the 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.

§ 63.3581 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, the General Provisions of this part, 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 non-metal 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 or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings or cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried or wet coating (*e.g.*, depainting) from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances 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, touchup 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 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 startup, 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 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 lining means the application of end seal compound on can ends during end 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.

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

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

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 § 63.3541. 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).

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

Non-aseptic 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 § 63.3541. 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) (*i.e.*, 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.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products that is conducted under the close supervision of technically trained personnel and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

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 non-food 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.

Tables to Subpart KKKK of Part 63

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).

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

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/liter solids (lbs HAP/gal solids): [a]
1. One and two-piece draw and iron can body coating	a. Two-piece beverage cans—all coatings	0.04 (0.31)
	b. Two-piece food cans—all coatings	0.06 (0.50)
	c. One-piece aerosol cans—all coatings	0.08 (0.65)
2. Sheetcoating	Sheetcoating	0.02 (0.17)
3. Three-piece can assembly	a. Inside spray	0.12 (1.03)
	b. Aseptic side seam stripes on food cans	1.48 (12.37)
	c. Non-aseptic side seam stripes on food cans	0.72 (5.96)
	d. Side seam stripes on general line non-food cans	1.18 (9.84)
	e. Side seam stripes on aerosol cans	1.46 (12.14)
4. End lining	a. Aseptic end seal compounds	0.06 (0.54)
	b. Non-aseptic end seal compounds	0.00 (0.00)

[a] If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to § 63.3551(i).

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).

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

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]
1. One and two-piece draw and iron can body coating	a. Two-piece beverage cans—all coatings	0.07 (0.59)
	b. Two-piece food cans—all coatings	0.06 (0.51)
	c. One-piece aerosol cans—all coatings	0.12 (0.99)
2. Sheetcoating	Sheetcoating	0.03 (0.26)
3. Three-piece can assembly	a. Inside spray	0.29 (2.43)
	b. Aseptic side seam stripes on food cans	1.94 (16.16)
	c. Non-aseptic side seam stripes on food cans	0.79 (6.57)
	d. Side seam stripes on general line non-food cans	1.18 (9.84)
	e. Side seam stripes on aerosol cans	1.46 (12.14)
4. End lining	a. Aseptic end seal compounds	0.06 (0.54)
	b. Non-aseptic end seal compounds	0.00 (0.00)

[a] If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to § 63.3551(i).

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

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

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.
2. in an existing affected source	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.

[a] You may choose to subtract methane from THC as carbon measurements.

If you are required to comply with operating limits by § 63.3492, you must comply with the applicable operating limits in the following table.

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

For the following device . . .	You must meet the following operating limit . . .	and you must demonstrate continuous compliance with the operating limit by . . .
1. thermal oxidizer	a. the average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3567(a) or §63.3577(a).	i. collecting the combustion temperature data according to §63.3568(c) or §63.3578(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. catalytic oxidizer	a. the average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.3567(b) or §63.3577(b); and either.	i. collecting the temperature data according to §63.3568(c) or §6.3578(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	b. ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to §63.3567(b)(2) or §63.3577(b)(2); or.	i. collecting the temperature data according to §63.3568(c) or §63.3578(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	c. develop and implement an inspection and maintenance plan according to §63.3567(b) (3) and (4) or §63.3577(b) (3) and (4).	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 §63.3567(b) (3) and (4) or §63.3577(b) (3) and (4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. carbon adsorber	a. the total regeneration desorbing gas (*e.g.,* steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to §63.3567(c) or §63.3577(c).	i. measuring the total regeneration desorbing gas (*e.g.,* steam or nitrogen) mass flow for each regeneration cycle according to §63.3568(d) or §63.3578(d); and ii. maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. the temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to §63.3567(c) or §63.3577(c).	i. measuring the temperature of the carbon bed, after completing each regeneration and any cooling cycle, according to §63.3568(d) or §63.3578(d); and ii. operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. condenser	a. the average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.3567(d) or §63.3577(d).	i. collecting the condenser outlet (product side) gas temperature according to §63.3568(e) or §63.3578(e); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
5. concentrators, including zeolite wheels and rotary carbon adsorbers.	a. the average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to §63.3567(e) or §63.3577(e).	i. collecting the temperature data according to §63.3568(f) or §63.3578(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature at or above the temperature limit.
	b. the average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to §63.3567(e) or §63.3577(e).	i. collecting the pressure drop data according to §63.3568(f) or §63.3578(f); ii. reducing the pressure drop data to 3-hour block averages; and iii. maintaining the 3-hour average pressure drop at or above the pressure drop limit.
6. emission capture system that is a PTE according to §63.3565(a) or §63.3575(a).	a. the direction of the air flow at all times must be into the enclosure; and either.	i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.3568(g)(1) or §63.3578(g)(1) or the pressure drop across the enclosure according to §63.3568(g)(2) or §63.3578(g)(2); and ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. the average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or.	see items 6.a. i and ii.

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—Continued

For the following device . . .	You must meet the following operating limit . . .	and you must demonstrate continuous compliance with the operating limit by . . .
	c. the pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 CFR part 51.	see items 6.a. i and ii.
7. emission capture system that is not a PTE according to § 63.3565(a) or § 63.3575(a).	a. the average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.3567(f) § 63.3577(f).	i. collecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.3568(g) or § 63.3578(g); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

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

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

Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.1(a)(1)–(14)	General Applicability	Yes.	
§ 63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart KKKK is also specified in § 63.3481.
§ 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 § 63.3581.
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§ 63.4(b)–(c)	Circumvention/Severability	Yes.	
§ 63.5(a)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction.	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes.	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.3483 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 Start-up, 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)–(16)	Extension of Compliance	Yes.	

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

Citation	Subject	Applicable to subpart KKKK	Explanation
§ 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 §§ 63.3564, 63.3565, 63.3566, , 63.3575, and 63.3576.
§ 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 63.3560 and 63.3570 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 Requirementsk—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 §§ 63.3568 and 63.3578.
§ 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) Operataion 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 §§ 63.3568 and 63.3578.
§ 63.8(c)(4)	CMS	No	Sections 63.3568 and 63.3578 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 63.3568 and 63.3578 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 Period Reporting.	No	Section 63.3520 requires reporting of CMS out of control periods.

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

Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	Yes	Applies only to sources using the outlet concentration limit option to comply with the standards.
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method.	Yes.	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test.	Yes	Applies only to sources using the outlet concentration limit option to comply with the standards.
§ 63.8(g)(1)–(5)	Data Reduction	No	§§ 63.3563, 63.3568, 63.3573 and 63.3578 specify monitoring data reduction.
§ 63.9(a)–(d)	Notification Requirements	Yes.	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the 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.	Yes	Applies only to sources using the outlet concentration limit option to comply with the standards.
§ 63.9(h)	Notification of Compliance Status	Yes	Section 63.3510 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines.	Yes.	
§ 63.9(j)	Change in Previous Information	Yes.	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements.	Yes	Additional requirements are specified in §§ 63.3530 and 63.3531.
§ 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)		Yes.	
§ 63.10(b)(2)(xii)	Records	Yes.	
§ 63.10(b)(2)(xiii)		Yes	Applies only to sources using the outlet concentration limit option to comply with the standards.
§ 63.10(b)(2)(xiv)		Yes.	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(7)–(8)		No	The same records are required in § 63.3520(a)(7).
§ 63.10(c)(9)–(15)		Yes.	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.3520.
§ 63.10(d)(2)	Report of Performance Test Results.	Yes	Additional requirements are specified in § 63.3520(b).
§ 63.10(d)(3)	Reporting Opacity Visible Emissions Observations.	No	Subpart KKKK does or not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Yes	Applies only to add-on control devices at sources using these to comply with the standards.
§ 63.10(e)(1)–(2)	Additional CMS Reports	Yes	Applies only to sources using the outlet concentration limit option to comply with the standards.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports.	No	Section 63.3520(b) specifies the contents of periodic compliance reports.

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

Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.10(e)(4)	COMS Data Reports	No	Subpart KKKK does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§ 63.11	Control Device Requirements/ Flares.	No	Subpart KKKK does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information/Confidentiality.	Yes.	

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

TABLE 6 TO SUBPART KKKK OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108–88–3	1.0	Toluene.
2. Xylene(s)	1330–20–7	1.0	Xylenes, ethylbenzene.
3. Hexane	110–54–3	0.5	n-hexane.
4. n-Hexane	110–54–3	1.0	n-hexane.
5. Ethylbenzene	100–41–4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742–95–6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742–94–5	0.1	Naphthalene.
11. Exempt mineral spirits	8032–32–4	0	None.
12. Ligroines (VM & P)	8032–32–4	0	None.
13. Lactol spirits	64742–89–6	0.15	Toluene.
14. Low aromatic white spirit	64742–82–1	0	None.
15. Mineral spirits	64742–88–7	0.01	Xylenes.
16. Hydrotreated naphtha	64742–48–9	0	None.
17. Hydrotreated light distillate	64742–47–8	0.001	Toluene.
18. Stoddard solvent	8052–41–3	0.01	Xylenes.
19. Super high-flash naphtha	64742–95–6	0.05	Xylenes.
20. Varsol® solvent	8052–49–3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P Naphtha	64742–89–8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477–31–6	0.08	4% naphthalene, 4% biphenyl.

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

TABLE 7 TO SUBPART KKKK OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR PETROLEUM SOLVENT GROUPS [a]

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.

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