



# Federal Register

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**Monday,  
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**Part II**

## **Environmental Protection Agency**

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**40 CFR Part 63**

**National Emission Standards for  
Hazardous Air Pollutants: Surface Coating  
of Metal Coil; Final Rule**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 63**

[FRL-7214-6]

RIN 2060-AG97

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

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This action promulgates national emission standards for hazardous air pollutants (NESHAP) for new and existing sources that coat metal coil. The EPA has identified metal coil surface coating as a major source of hazardous air pollutant (HAP) emissions such as methyl ethyl ketone, glycol ethers, xylenes (isomers and mixtures), toluene, and isophorone. Each of these major HAP can cause reversible or irreversible toxic effects following sufficient exposure. The potential toxic effects include eye, nose, throat, and skin irritation, and blood cell, heart, liver, and kidney damage.

The final rule implements section 112(d) of the Clean Air Act (CAA) and will require all new and existing metal coil coating operations that are major sources to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). The EPA estimates that the final rule will reduce nationwide HAP emissions from metal coil coating operations by

approximately 53 percent. The emissions reductions achieved by these NESHAP, when combined with the emissions reductions achieved by other similar standards, will provide protection to the public and achieve a primary goal of the CAA.

**DATES:** Effective June 10, 2002. The incorporation by reference of certain publications in this rule is approved by the Director of the Federal Register as of June 10, 2002.

**ADDRESSES:** Docket No. A-97-47 contains supporting information used in developing the standards. The docket is located at the U.S. EPA, 401 M Street, SW., Washington, DC 20460 in Room M-1500, Waterside Mall (ground floor), and may be inspected from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays.

**FOR FURTHER INFORMATION CONTACT:** For information concerning applicability and rule determinations, contact your State or local representative or the appropriate EPA Regional Office representative. For information concerning the analyses performed in developing these NESHAP, contact Ms. Rhea Jones, Coatings and Consumer Products Group (C539-03), Emission Standards Division, U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541-2940, facsimile number (919) 541-5689; electronic mail address: jones.rhea@epa.gov.

**SUPPLEMENTARY INFORMATION:** *Docket.* The docket is an organized and complete file of all the information considered by the EPA in the development of the final 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 final rule are available for review in the docket or copies may be mailed on request from the Air Docket 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 final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the final rule will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules <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.* If a metal coil coating line is operated at your facility, it may be a regulated entity. Categories and entities potentially regulated by this action include:

Category	NAICS codes	Examples of potentially regulated entities
Metal Coil Coating Industry .....	332812 <sup>a</sup> , 323122, 339991, 326113, 32613, 32614, 331112, 331221, 33121, 331312, 331314, 331315, 331319, 332312, 332322, 332323, 332311, 33637, 332813, 332999, 333293, 336399, 325992, 42183.	Those facilities that perform surface coating of metal coil using HAP-containing materials.

<sup>a</sup> The majority of facilities are included in NAICS 332812.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.5090 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the appropriate EPA Regional Office representative.

*Judicial Review.* The NESHAP for Metal Coil Coating were proposed on July 18, 2000 (65 FR 44616). The final rule announces the EPA's final decision on the rule. Under section 307(b)(1) of

the CAA, judicial review of these NESHAP is available by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by August 9, 2002. Only those objections to the rule which were raised with reasonable specificity during the period for public comment may be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements that are the subject of the final rule may not be challenged later in civil or criminal court brought by the EPA to enforce these requirements.

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

- I. What are the background and public participation for the rule?
- II. What are the final standards?
  - A. What facilities are subject to the rule?
  - B. What is the affected source?
  - C. What are the emission limits and operating limits?
  - D. What pollutants are limited by the rule?
  - E. When do I show initial compliance with the standards?
  - F. How do I demonstrate compliance?
  - G. What are the notification, recordkeeping, and reporting requirements?
- III. What are the major changes we have made to the rule since proposal?
  - A. Rule applicability
  - B. Emission standards
  - C. Operating limits

- D. Compliance demonstration
- IV. What are the responses to major comments?
  - A. Impact analysis
  - B. Rule applicability
  - C. Definitions
  - D. MACT floor determination
  - E. Achievability of the Standards
  - F. Monitoring
  - G. Administrative Requirements
- V. What are the environmental, energy, cost, and economic impacts?
  - A. What are the HAP emissions reductions?
  - B. What are the secondary environmental impacts?
  - C. What are the energy impacts?
  - D. What are the cost impacts?
  - E. What are the economic impacts?
- VI. What are the administrative requirements?
  - A. Executive Order 12866, Regulatory Planning and Review
  - B. Executive Order 13132, Federalism
  - C. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments
  - D. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks
  - E. Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
  - F. Unfunded Mandates Reform Act of 1995
  - G. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Act of 1996 (SBREFA), 5 U.S.C. 601, *et seq.*
  - H. Paperwork Reduction Act
  - I. National Technology Transfer and Advancement Act of 1995
  - J. Congressional Review Act

### I. What Are the Background and Public Participation for the Rule?

Section 112 of the CAA requires EPA to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Major sources of HAP are those that have the potential to emit greater than 9.07 megagrams per year (Mg/yr) (10 tons per year (tpy)) of any one HAP or 22.68 Mg/yr (25 tpy) of any combination of HAP.

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as 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 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 sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing 5 sources for categories or subcategories with fewer than 30 sources) (CAA section 112(d)(3)).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards that are 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 (CAA section 112(d)(2)).

On July 16, 1992 (57 FR 31576), we published a list of source categories slated for regulation under section 112(c). The source category list included the metal coil coating (surface coating) source category regulated by the standards being promulgated today. We proposed standards for the metal coil coating sources covered by the rule on July 18, 2000 (65 FR 44616).

The preamble for the proposed standards described the rationale for the proposed standards. Public comments were solicited at the time of the proposal. The public comment period lasted from July 18, 2000 to September 18, 2000. Industry representatives, regulatory agencies, environmental groups, and the general public were given the opportunity to comment on the proposed rule and to provide additional information during and after the public comment period. Although we offered at proposal the opportunity for oral presentation of data, views, or arguments concerning the proposed rule, no one requested a public hearing, and a public hearing was not held.

We received a total of 17 letters containing comments on the proposed rule. Commenters included individual companies with coil coating operations, industry trade associations, State regulatory agencies, and an association of air pollution control vendors. Today's final rule reflects our full consideration of all of the comments received. Major public comments on the proposed rule, along with our responses to those comments, are summarized in this preamble. See the Summary of Public

Comments and Responses document for a more detailed discussion of public comments and our responses (docket number A-97-47).

### II. What Are the Final Standards?

#### A. What Facilities Are Subject to This Rule?

Metal coil surface coating is a process-specific rather than a product-specific operation. Accordingly, the final rule applies to you if you own or operate any coil coating line at a facility that is a major source of HAP emissions. We have defined a coil coating line as a process and the collection of equipment used to apply an organic coating to the surface of metal coil that is at least 0.15 millimeter (0.006 inch) thick. A coil coating line includes a web unwind or feed section, a series of one or more work stations, any associated curing oven, wet section, and quench station. A coil coating line does not include ancillary operations such as mixing/thinning, cleaning, wastewater treatment, and storage of coating material.

You are not subject to the final rule if your coil coating line 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 your permitting authority.

The requirements of the final rule do not apply to a coil coating line that is part of research or laboratory equipment, coats metal coil for use in flexible packaging, or is a coil coating line on which 85 percent or more of the metal coil coated, based on surface area, is less than 0.15 millimeter (0.006 inch) thick. If you operate a coil coating line on which 85 percent or more of the metal coil coated, based on surface area, is less than 0.15 millimeter (0.006 inch) thick, it would be subject to the Paper and Other Web Coating NESHAP (40 CFR part 63, subpart JJJJ) currently under development. However, you may choose to demonstrate compliance with the requirements of today's rule instead of those of subpart JJJJ if either of the following two criteria applies: (1) The coating line is used to coat metal coil of thicknesses both less than and greater than or equal to 0.15 millimeter (0.006 inch) thick, regardless of the percentage of surface area of each thickness coated, or (2) the coating line is used to coat only metal coil that is less than 0.15 millimeter (0.006 inch) thick and the coating line is controlled by a common control device that also receives organic

HAP emissions from a coil coating line that is subject to the requirements of this subpart. Compliance with the requirements of today's rule in accordance with either of the above criteria constitutes compliance with the Paper and Other Web Coating NESHAP (40 CFR part 63, subpart JJJJ), therefore, you would not be subject to the compliance demonstration requirements of subpart JJJJ.

This rule does not apply to facilities that print a company logo for identification purposes or other markings for inventory control purposes onto bare, uncoated metal coils using flexographic printing equipment, where no other coating is applied.

A major source is also subject to all other applicable NESHAP for the various source categories, other than metal coil coating and paper and other web coating, that may be present at the facility. This means your facility may be subject to multiple NESHAP, and you are responsible for complying with the standards set for each NESHAP.

#### *B. 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. Within a source category, we select the specific emission sources (emission points or groupings of emission points) that will make up the affected source for that category.

For the final metal coil NESHAP, the affected source subject to the emission standards is the collection of all of the metal coil coating lines at your facility. The portions of the metal coil coating line to which the emission limitations apply are the coating application stations and associated curing ovens. Wet section/pre-treatment and quench operations are part of the metal coil coating line, but are not subject to the emission limitations. The coil coating line does not include ancillary operations such as storage of coating and cleaning material, wastewater treatment, coating material mixing/thinning, and parts and equipment cleaning and, therefore, the standards do not apply to these operations.

#### *C. What Are the Emission Limits and Operating Limits?*

**Emission Limits.** Today's final rule provides you the option of limiting organic HAP emissions to one of the following three specified levels: (1) No more than 2 percent of the organic HAP applied (98 percent overall control efficiency (OCE) limit); (2) no more than 0.046 kilogram of organic HAP per liter (kg/l) (0.38 pound per gallon (lb/gal)) of

solids applied during each 12-month compliance period (emission rate limit); or (3) if you are using an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) on a dry basis is achieved and the efficiency of the capture system is 100 percent (outlet concentration limit).

You may choose from several compliance options in the final rule to achieve the emission limits. You may comply through a pollution prevention approach by applying only coating materials that meet the emission rate limit, either individually or collectively. Second, you may use a capture system and add-on control device to either reduce emissions by 98 percent or by the degree needed to meet the emission rate limit. Third, you may use a 100 percent efficient capture system and an oxidizer that reduces organic HAP emissions to no more than 20 ppmv.

**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 final operating limits would apply to you. These limits are site-specific parameter limits that you determine during the initial performance test of the system. For capture systems, you must develop a capture system monitoring plan. The monitoring plan must identify the operating parameter to be monitored, explain why this parameter is appropriate for demonstrating ongoing compliance, and identify the specific monitoring procedures. In the plan you must specify operating limits for the capture system operating parameter that demonstrate compliance with the emission limits. The monitoring plan must be available for inspection by your permitting authority upon request.

For thermal oxidizers, you must monitor the combustion temperature. For catalytic oxidizers, you must either monitor the temperature immediately before and after the catalyst bed, or you must monitor the temperature before the catalyst bed and prepare and implement an inspection and maintenance plan that includes periodic catalyst activity checks.

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

If you use a capture system and control device for compliance, you are 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 control device.

The NESHAP General Provisions of 40 CFR part 63, subpart A codify certain procedures and criteria for all 40 CFR part 63 NESHAP and also apply to you, as indicated in Table 2 to subpart SSSS. The General Provisions contain administrative procedures, preconstruction review procedures for new sources, and procedures for conducting compliance-related activities such as notifications, reporting and recordkeeping, performance testing, and monitoring. Subpart SSSS refers to individual sections of the General Provisions to highlight key sections that are relevant. However, unless specifically overridden in Table 2 to subpart SSSS of Part 63, all of the applicable General Provisions requirements apply to you.

In addition to the metal coil surface coating NESHAP, you may also be subject to other future or existing rules, such as State rules requiring reasonably available control technology limits on volatile organic compounds (VOC) emissions or the new source performance standards (NSPS) in 40 CFR part 60, subpart TT. You must comply with all rules that apply to you. Compliance with different standards should be resolved through your title V permit.

#### **D. What Pollutants Are Limited by the Rule?**

Today's final rule limits total organic HAP emissions from coil coating lines. These organic HAP are included on the list of HAP in section 112(b) of the CAA.

#### *E. When Do I Show Initial Compliance With the Standards?*

Existing sources will have to comply with today's final rule no later than 3 years after June 10, 2002. New or reconstructed sources must comply immediately upon startup of the affected source or by June 10, 2002, whichever is later.

The initial compliance period begins on the applicable compliance date described above for an existing source or a new or reconstructed source and ends on the last day of the 12th month following the compliance date. If the compliance date falls on any day other than the first day of the month, then the initial compliance period extends through that month plus the next 12 months. For the purpose of demonstrating continuous compliance, a compliance period consists of 12 months. Each month after the end of the

initial compliance period is the end of a compliance period consisting of that month and the preceding 11 months. We have defined "month" as a calendar month or a pre-specified period of 28 to 35 days to allow for flexibility at sources where data are based on a business accounting period.

#### F. How Do I Demonstrate Compliance?

You must account for all coating materials used in the affected source when determining compliance with the applicable emission limit. To make this determination, you must use at least one of the following compliance options: use of "as purchased" individually compliant coating materials (compliance option 1); use of "as applied" compliant coating materials (compliance option 2); use of a capture system and control device to achieve 98 percent OCE or 20 ppmv outlet (compliance option 3); and use of a capture system and control devices to maintain an acceptable emission rate (compliance option 4). You may apply any of the compliance options to an individual coil coating line, or to multiple lines as a group, or to the entire affected source. You may use different compliance options for different coil coating lines, or at different times on the same line. However, you may not use different compliance options at the same time on the same coil coating line. If you switch between compliance options for any coil coating line or group of lines, you must document this switch, and you must report it in your next semiannual compliance report.

If you use compliance option 1, then you must demonstrate that the organic HAP in each coating material used during each compliance period does not exceed 0.046 kg/l (0.38 lb/gal) of solids, as purchased.

There are two procedures for demonstrating compliance through the use of compliance option 2. You may either demonstrate that the organic HAP in each coating material used does not exceed 0.046 kg/l (0.38 lb/gal) of solids, as applied for each compliance period or demonstrate that the average of all coating materials used does not exceed this limit for each compliance period.

If you use compliance option 3, then you must demonstrate that either the overall organic HAP control efficiency is at least 98 percent on a monthly basis for individual or groups of coil coating lines; or overall organic HAP control efficiency is at least 98 percent during the initial performance test for individual coil coating lines; or oxidizer organic HAP outlet concentration is no greater than 20 ppmv and there is 100

percent capture efficiency during the initial performance test. When using emission capture and add-on controls to demonstrate compliance, you must also demonstrate that applicable operating limits are achieved continuously.

If you use compliance option 4, then you must demonstrate that the average organic HAP emission rate does not exceed 0.046 kg/l (0.38 lb/gal) of solids applied during each compliance period.

In addition to the testing and monitoring requirements specified below for the affected source to demonstrate compliance, the final rule adopts the testing requirements specified in § 63.7.

#### 1. Test Methods and Procedures

If you demonstrate compliance with compliance option 1 or 2 based on the application of compliant coating materials on your coil coating lines or with compliance option 4 based on the combination of coating materials applied and control devices, you must determine the organic HAP content or the volatile matter content, and the solids content of coating materials "as purchased" or "as applied." To determine organic HAP content, you may either use EPA Method 311 of appendix A of 40 CFR part 63, use an alternative method for determining the organic HAP content (but only after obtaining EPA approval), or use the nonaqueous volatile matter content of the coating materials applied as a surrogate for the organic HAP content. The nonaqueous volatile matter content, which would include all organic HAP plus all other organic compounds (excluding water), must be determined by EPA Method 24 of appendix A of 40 CFR part 60, or an EPA approved alternative method. You may rely on manufacturer's data to determine the organic HAP content or volatile matter content. However, if there is any inconsistency between the results of the test methods specified above (or an approved alternative) and manufacturer's or supplier's data, the test method results will prevail for compliance and enforcement purposes. You may use the test methods specified in the rule for determining volume solids content of the coating materials (ASTM D2697-86 (Reapproved 1998) or ASTM D6093-97), or you may rely on manufacturer's or supplier's data.

You must determine the mass of each coating material "as purchased" or "as applied" using company records. If diluent solvents or other ingredients are added to a coating material prior to application, then the total organic HAP fractions and mass of coating material "as applied" must be adjusted

appropriately to account for such additions. You must calculate the organic HAP content, solids content, and mass of all coating materials applied on the coil coating lines for each monthly period. However, only changes in a material formulation would require a re-determination of total organic HAP mass fraction for that coating material.

If you use an emission capture and control system to comply with compliance option 3 of the standard, you must demonstrate either the OCE or the oxidizer outlet HAP concentration is achieved. Alternatively, in accordance with compliance option 4, you may use capture and control equipment to demonstrate you meet the organic HAP emission rate limit specified. To comply using this approach, you must determine the OCE of the equipment and the organic HAP and solids content of the coating materials applied. These values must be determined for each monthly period and combined to determine the emission rate for each rolling 12-month compliance period.

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 use the specified test methods to determine both the efficiency of the capture system and the emission reduction efficiency of the control device (or the oxidizer outlet organic HAP concentration). To determine the capture efficiency, you must either verify the presence of a permanent total enclosure (PTE) using EPA Method 204 of 40 CFR part 51, appendix M (and all coating materials must be applied and dried within the enclosure); or use EPA Method 204A through F of 40 CFR part 51, appendix M, to measure capture efficiency. If you have a PTE and all materials are applied and dried within the enclosure and you route all exhaust gases from the enclosure to a control device, you assume 100 percent capture. To demonstrate compliance using the oxidizer outlet organic HAP concentration limit, 100 percent capture is required.

You must determine the emission reduction efficiency of a control device or the oxidizer outlet organic HAP concentration by conducting a performance test or using a continuous emission monitoring system (CEMS). If you use CEMS to calculate the control efficiency, you must measure both the inlet and outlet concentrations. The CEMS must comply with performance specification 8 or 9 in 40 CFR part 60, appendix B.

If you conduct a performance test, we are requiring that the emission

reduction efficiency of a control device or the oxidizer outlet organic HAP concentration be determined based on three runs, each run lasting 1 hour. Method 1 or 1A of 40 CFR part 60, appendix A is used for selection of the sampling sites. Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, is used to determine the gas volumetric flow rate. Method 3, 3A, or 3B of 40 CFR part 60, appendix A, is used 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 ASME PTC 19-10-1981-Part 10, "Flue and Exhaust Gas Analyses." Method 4 of 40 CFR part 60, appendix A, is used to determine stack moisture. Method 25 or 25A of 40 CFR part 60, appendix A, is used to determine organic volatile matter concentration. You must use Method 25A to demonstrate compliance with the oxidizer outlet organic HAP concentration limit because the limit is less than 50 ppmv. 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, may be used upon obtaining approval by the Administrator. If you use a solvent recovery system, you may choose to determine the OCE using a liquid-liquid material balance instead of conducting an initial performance test. If you use the material balance alternative, you must measure the amount of all coating materials applied in the controlled coating operations served by the solvent recovery system during each month and determine the total volatile matter content of these materials. You must also measure the amount of volatile matter recovered by the solvent recovery system during the month and compare the amount recovered to the amount used to determine the OCE.

## 2. Monitoring Requirements

Monitoring is required by the standards to ensure that an affected source that does not use CEMS to demonstrate compliance is in continuous compliance. Monitoring requirements apply if you comply with the rule using emission capture and control devices to meet compliance option 3 or 4.

You must establish operating limits as part of the initial performance test of a capture system and control device other than a solvent recovery system for which you conduct liquid-liquid material balances. The operating limits are the minimum or maximum (as applicable) values achieved for capture

systems and control devices during the most recent performance test, conducted under representative conditions, that demonstrated compliance with the emission limits.

The final rule specifies the parameters to monitor for oxidizers, the type of add-on control device most commonly used in the industry. You must install, calibrate, maintain, and continuously operate all monitoring equipment according to manufacturer's specifications and ensure that the continuous parameter monitoring systems (CPMS) meet the requirements in § 63.5150 of today's final rule. If you use control devices other than oxidizers, you must submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by the Administrator and is not delegated to States.

If you use a capture and control system to meet the emission limits and you do not use liquid-liquid material balances to demonstrate compliance, you are required to develop a capture system monitoring plan identifying the operating parameter(s) to be monitored, explaining the appropriateness of the parameter(s) for demonstrating ongoing compliance, and identifying the specific monitoring procedures. The monitoring plan also must establish operating limits at the capture system operating parameter value, or range of values, that demonstrates compliance with the emission limits. The plan must be available for inspection by the permitting authority upon request. You must monitor in accordance with your plan.

After proposal of this NESHAP, we developed criteria to be used for setting operating parameter limits for monitoring capture systems and proposed them in other surface coating NESHAP (see, for an example, the proposal of Subpart NNNN—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances (65 FR 81133). These or similar criteria will be included in implementation materials we are developing for today's final rule as an example that facilities may follow in developing their monitoring plans.

If you use a thermal or catalytic oxidizer, you must continuously monitor the appropriate temperature and record it at least every 15 minutes. For thermal oxidizers, 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 is the average temperature measured

during each performance test; for each consecutive 3-hour period, the average temperature must be at or above this limit. For catalytic oxidizers, temperature monitors are placed immediately before and after the catalyst bed. The operating limits are the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed during the performance test. For each 3-hour period, the average temperature and the average temperature difference are required to be at or above these limits. Alternatively, you are allowed to meet only the temperature limit before the catalyst bed if you develop and implement an inspection and maintenance plan for the catalytic oxidizer.

If you operate metal coil coating lines with intermittently-controllable work stations, you must demonstrate that captured organic HAP emissions 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 options:

(1) Flow control position indicator to provide a record of whether the exhaust stream is directed to the control device;

(2) Car-seal or lock-and-key valve closures to secure the bypass line valve in the closed position when the control device is operating;

(3) Valve closure continuous monitoring to ensure any bypass line valve or damper is closed when the control device is operating; or

(4) Automatic shutdown system to stop the coil coating operation when flow is diverted from the control device.

A deviation would occur for any period of time the bypass monitoring indicates that emissions are not routed to the control device.

If you use a solvent recovery system, you must conduct monthly liquid-liquid material balances or operate CEMS as described above in the test methods and procedures section of this preamble.

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 are required to achieve on a continuous basis the operating limits you establish during the performance test. In addition, to demonstrate continuous compliance with compliance option 4, you must record data on the organic HAP and solids content of the coating materials applied to determine the organic HAP emission rate for each compliance period.

### G. 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 indicated in Table 2 to subpart SSSS. 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.

#### 1. Initial Notification

If you own or operate an existing 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 no later than 2 years after June 10, 2002. For new and reconstructed sources, you must send the notification within 120 days after the date of initial startup or 120 days after June 10, 2002, whichever is later. That report notifies us and your State agency that you have an existing affected source that is subject to today's NESHAP or that you have constructed a new affected source. Thus, it allows you and the permitting authority to plan for compliance activities. You also need to send a notification of planned construction or reconstruction of a source that will be subject to the final rule and apply for approval to construct or reconstruct.

#### 2. 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 must conduct a performance test. The performance test is required no later than the compliance date for an existing affected source. For a new or reconstructed affected source, the performance test is required no later than 180 days after startup or 180 days after today's date, whichever is later. You must notify us (or the delegated State or local agency) at least 60 calendar days before the performance test is scheduled to begin and submit a report of the performance test results no later than 60 days after the test.

#### 3. Notification of Compliance Status

You must submit a Notification of Compliance Status within 30 days after the end of the initial 12-month compliance period. In the notification, you must certify whether each affected

source has complied with the final standards, identify the option(s) you used to demonstrate initial compliance, summarize the data and calculations supporting the compliance demonstration, and provide information on any deviations from the emission limits, operating limits, or other requirements.

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 must also include the measured range of each monitored parameter, the operating limits established during the performance test, and information showing whether the source has complied with its operating limits during the initial compliance period.

#### 4. Recordkeeping Requirements

You must keep records of reported information and all other information necessary to document compliance with today's final 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 the control and monitoring equipment must be kept for the life of the equipment.

Depending on the compliance option you choose, you may have to keep records of one or more of the following:

- Organic HAP, volatile matter, and solids content of the coating materials, "as purchased" or "as applied."
- Monthly usage of coating materials, organic HAP, volatile matter, and solids and compliance demonstrations using these data.
- Continuous monitoring system measurements.
- Liquid-liquid material balances.

If you demonstrate compliance by using a capture system and control device, you must keep records of the following:

- All required measurements, calculations, and supporting documentation needed to demonstrate compliance with the standards.
- All results of performance tests and parameter monitoring.
- All information necessary to demonstrate conformance with the affected source's SSMP when the plan procedures are followed.
- The occurrence and duration of each startup, shutdown, or malfunction of the emission 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.

- Each period during which a CPMS is malfunctioning or inoperative (including out-of-control periods).

Today's final rule requires you to collect and keep records according to certain minimum data requirements for the CPMS. Failure to collect and keep the specified minimum data would be a deviation that is separate from any emission limits or operating limits.

Deviations, as determined from these records, need to be recorded and also reported. A deviation is any instance when any requirement or obligation established by the final rule including, but not limited to, the emission limits and operating limits, is not met.

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

#### 5. Periodic Reports

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

- Report each deviation from the emission limit.
- If you use an emission capture system and control device other than a solvent recovery system for which you conduct liquid-liquid material balances, 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 the deviations occurred.

You also must include in each semiannual report an identification of the compliance option(s) you used for each affected source and the beginning dates you used each compliance option.

#### 6. Other Reports

You are 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 must report those procedures with your semiannual reports in

addition to immediate reports required by 40 CFR 63.10(d)(5)(ii).

### III. What Are the Major Changes We Have Made to the Rule Since Proposal?

This section summarizes the major changes we have made to the rule since proposal. We made the changes to clarify the rule's requirements and to respond to public comments on the proposed rule. A summary of responses to major comments regarding rule requirements is presented in section IV.B of this preamble.

#### A. Rule Applicability

The rule applicability has been clarified through revisions to the definition of a coil coating line and related definitions and the addition of a paragraph explicitly presenting criteria under which today's rule does not apply to a coil coating line. Also, a paragraph has been added that gives you compliance options if you operate a coating line(s) that coats both coil and foil.

The revised definition of a coil coating line incorporates the proposed definition of coil coating operation (the collection of equipment used to apply an organic coating to the surface of metal coil that is at least 0.15 millimeter (0.006 inch) thick). The definition of coil coating operation has been removed from the final standard. The coating of metal coil for use in flexible packaging (subject to the requirements of 40 CFR part 63, subpart JJJJ) is explicitly exempted from the requirements of today's rule through a revision to the definition of metal coil stating that metal coil does not include metal webs that are coated for use in flexible packaging. A definition of flexible packaging has been added to the final rule. A definition of protective oil, which is identified as a material not considered to be a coating in this subpart, has been added to the final rule to clarify what it includes.

A paragraph that explicitly presents two criteria under which today's rule does not apply to a coil coating line has been added. The first criterion, for a coil coating line that is part of research or laboratory equipment, was proposed in § 63.5100 as an exception to the emission sources affected by this subpart, and has been moved to the applicability statement of § 63.5090. The second criterion, for a coating line that predominantly coats foil (a metal strip that is less than 0.006 inch thick), has been added to the final rule.

The paragraph that has been added provides compliance options for a coating line subject to both this subpart and 40 CFR part 63, subpart JJJJ which

is currently under development. It allows you to comply only with this subpart if you operate a coating line that coats both coil and foil, regardless of the amount of each coated or if you coat only foil but the coating line is controlled by a common control device that also receives organic HAP emissions from a coil coating line that is subject to the requirements of this subpart. Compliance with this subpart would constitute compliance with subpart JJJJ.

#### B. Emission Standards

The proposed emission rate limit has been revised in the final rule, and an oxidizer outlet concentration limit has been added. Also, the language of the emission standards has been revised to reflect the change in the compliance period from one month to a 12-month compliance period, as is described in section III.D of this preamble.

The proposed emission rate limit would have limited organic HAP emissions to no more than 0.029 kg/l (0.24lb/gal) of solids applied for the month. The final emission rate limit requires that the level of organic HAP be no more than 0.046 kg/l (0.38lb/gal) of solids applied during each 12-month compliance period.

If you use an oxidizer to control organic HAP emissions, the final rule allows you to operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis is achieved, provided the efficiency of the capture system is 100 percent. This outlet concentration limit provides oxidizers with an alternative to the 98 percent OCE limit.

#### C. Operating Limits

In response to comments regarding the definition of deviation as it relates to the failure to meet operating parameters, oxidizer monitoring, and the establishment of the operating parameter to be monitored, we have added § 63.5121 entitled "What operating limits must I meet?" to the final rule. This section clarifies that the operating limits must be met at all times after you establish them and presents the applicable operating limits for oxidizers and methods of demonstrating continuous compliance with the operating limits in Table 1 to subpart SSSS.

The catalytic oxidizer operating parameter monitoring requirements have been revised to incorporate the option of catalyst bed inlet and outlet gas temperature monitoring that is described below. Regarding capture system monitoring, the proposed

requirement that you submit your monitoring plan to the Administrator has been revised to require only that you make the monitoring plan available for inspection by the permitting authority upon request.

We have also added a specific operating limits paragraph to section 63.5160 of the final rule to clarify the specific procedures to be followed to establish the operating limits during a performance test. The procedures for establishing the operating limits for a catalytic oxidizer have been corrected in the final rule to require that both the outlet temperature and the inlet temperature to the catalyst bed be used as operating parameters in order to calculate the temperature change across the catalyst bed. In addition, an alternative to this monitoring has been added to the final rule. In lieu of monitoring the inlet and outlet gas temperatures to calculate temperature change across the catalyst bed, you may monitor the gas temperature at the inlet to the catalyst bed and develop and implement an inspection and maintenance plan for the catalytic oxidizer.

#### D. Compliance Demonstration

Revisions to the proposed compliance demonstration requirements discussed below include explicitly allowing compliance on a line-by-line basis, changing the averaging period for the emission rate limit from a monthly to a rolling 12-month average, revising the definition of the term  $M_j$  to exclude water, and removing the 98 percent cap on destruction efficiency in calculating HAP emitted to demonstrate compliance with the emission rate limit.

We intended for the proposed rule to allow line-by-line compliance. This intent has been clarified in the final rule by adding an introductory paragraph to § 63.5170 of the final rule. The introductory paragraph states that you may apply any of the compliance options to an individual coil coating line, or to multiple lines as a group, or to the entire affected source. You may use different compliance options for different coil coating lines, or at different times on the same line, but you may not use different compliance options at the same time on the same coil coating line. Recordkeeping and reporting requirements also are specified if you switch between compliance options.

The compliance period specified for the emission rate limit in the proposed rule was 1 month. The compliance period specified in the final rule is 12 months, and compliance with the emission rate limit is demonstrated on



the basis of a rolling 12-month average. The 12-month compliance period is specified in § 63.5130 of the final rule and also is reflected in the specifications of the initial compliance period and subsequent compliance periods that have been added to this section. The initial compliance period begins on the compliance date and ends on the last day of the 12th month following the compliance date. If the compliance date is not the first day of the month, then the initial compliance period extends through that month plus the next 12 months. For subsequent compliance periods, each month after the end of the initial compliance period is the end of a compliance period consisting of that month and the preceding 11 months.

The term  $M_j$  is the mass of solvent, thinner, reducer, diluent, or other nonsolids-containing coating material,  $j$ , applied in a month and is used in the mass balance to determine the recovery efficiency of a solvent recovery device. The proposed definition of  $M_j$  included water as a nonsolids-containing coating material. The definition of the term  $M_j$  in Equation 6 of § 63.5170 of the final rule has been revised to explicitly exclude water.

Finally, the proposed rule capped oxidizer destruction efficiency at 98 percent in calculating organic HAP emitted to demonstrate compliance with the emission rate limit unless performance was demonstrated with CEMS data. The final rule has been revised to allow the use of oxidizer destruction efficiencies greater than 98 percent demonstrated during performance testing, provided the oxidizer has continuously operated within the operating limits established during the performance test.

#### IV. What Are the Responses to Major Comments?

This section summarizes the major public comments we received on the proposed rule and our responses to those comments. A more comprehensive summary of comments and responses can be found in Docket No. A-97-47.

##### A. Impacts Analysis

Commenters identified flaws with EPA's impacts analysis and were concerned that inaccuracies in the impact analysis would affect bottom line figures for the costs impacts, secondary air impacts, and achievability of the standards. Two commenters asserted that EPA underestimated oven air flow rates for the model plant analysis due to failing to calculate air flows in standard cubic feet per minute (scfm) rather than actual cubic feet per

minute (acfm), underestimating air flows by 1.5 to 2 times that used for model plant analysis for determining costs. They also claim that upgrading control devices to achieve the 98 percent OCE limit would generate additional air flow that has to be treated by the oxidizer due to installing new PTE with sufficient ventilation to comply with OSHA permissible exposure limits for the mix of solvents used. Failing to include the associated costs underestimates the initial capital investment and annual operating costs of an affected coating line.

Contrary to the commenter's assertion, the flow rates in acfm were derived from Information Collection Request (ICR) information and converted to scfm for the design of oxidizers; therefore, no error was made in this calculation. However, after further analysis comparing the calculated air flow rates to the reported air flow rates for all facilities that reported air flow rates in acfm, we found that model plant air flow rates should have been about 50 percent higher. Therefore, an adjustment factor was developed, resulting in a 50 percent increase in the model plant air flow rates. The adjusted oven air flow rates were used to revise compliance cost estimates. We also reviewed the additional capture measures reported by respondents to the metal coil coating ICR that use PTE. The ICR review revealed that a large majority of facilities reporting existing PTE did not report the use of additional ventilation; only 17 percent reported extra ventilation.

However, we agree that approximately 40 percent more flow is needed for a PTE if it cannot be designed with adequate local exhaust ventilation in the form of hoods and oven extensions to ensure worker safety. Therefore, we developed additional costs to reflect a 40 percent increase in flow for the 17 percent of facilities requiring extra ventilation.

One commenter stated that EPA's PTE costs are significantly underestimated based on a cost summary provided by the commenter for a PTE installed for a tandem coating line in a mezzanine arrangement. The cost summary included costs for reconfiguration of make-up air duct work, new exhaust duct work, a new plant make-up air heater, and explosion proof electrical systems. They assert that EPA estimates neglect these additional costs. Our data analysis revealed that PTE costs for a mezzanine arrangement represent the worst case situation for PTE application. Of the seven facilities in the facility database who use this configuration,

four already have PTE and six comply with one of the compliance options. The seventh mezzanine PTE was under construction. Therefore, no additional costs for this design have been added. The PTE costs we derived represent typical installations; however, we agree with the commenter that electrical fittings used in the presence of flammable solvents should be explosion proof. To account for the additional cost of explosion-proof fittings, the estimated cost of auxiliaries has been increased from 50 to 80 percent of the PTE capital cost. These revised costs were used in revising the compliance cost estimates.

Two commenters believed that many of the assumptions EPA used to determine the cost of upgrading or replacing thermal oxidizers contributed to control system upgrade/replacement costs that are substantially less than what is truly needed. In addition to their comments about gas flow rate estimates for the model plant analysis, they claim the following assumptions should be revised or eliminated: (1) EPA has assumed that costs for duct work, dampers, fans, motors and stacks are not required for a replacement oxidizer, (2) a 20 percent discount is assumed for purchase of two oxidizers in the same order, (3) new oxidizers are assumed to operate with 70 percent heat recovery, which would likely preheat the inlet stream to above auto-ignition temperatures for the VOC involved, and (4) EPA assumed that existing units will be upgraded to achieve higher destruction efficiencies and accommodate increased flow. The commenter claimed that it is much more likely that a facility would choose to replace rather than upgrade a unit given the cost of modifications the commenter asserted to be necessary, including enlarging the combustion chamber, increasing the oxidizer blower capacity, increasing the size of the heat exchanger, and enlarging duct work to handle additional flow.

To address the comments on the costs of upgrading or replacing thermal oxidizers, for cases in which increased flow to the replacement oxidizer is not required, the assumption has been made that new ducting is not required. For cases in which air flow is increased, but a rotary concentrator is installed, the air flow to the oxidizer is not increased but new ducting is needed to route air to the rotary concentrator and from the concentrator to the oxidizer. New costs for the concentrator and associated equipment have been estimated for these cases and any others in which increased ventilation air is required.

Since index values for thermal oxidizers and catalytic oxidizers are

now greater than for most other control devices, discounts may not be available. New costs have been developed that have no discount for the purchase of two oxidizers in the same order.

We reviewed the heat recovery information in the facility database. In addition, we contacted two oxidizer vendors concerning the potential for auto-ignition of the inlet stream. Despite the high heat recovery efficiencies reported by some facilities in the database and the potential for designing recuperative oxidizers to avoid auto-ignition problems, we agree there is still the potential of auto-ignition problems for certain organic compounds used in the metal coil coating industry. Hence, we followed a conservative approach in reevaluating the assumptions used in costing replacement oxidizers. Replacement oxidizers are assumed to achieve a heat recovery of 60 percent versus the 50 percent heat recovery of baseline oxidizers. This number is based on our review of the database balanced by information provided by oxidizer vendors and is appropriate for impact analysis. In actuality, some sources may achieve higher heat recovery and some lower.

In determining whether an existing oxidizer would be upgraded or replaced, we assumed that the useful life of an oxidizer is 15 years based on available information. For sources with oxidizers near the end of their useful lives, we did not attribute the replacement cost to the NESHAP since the source would incur the cost in any case. To account for specific situations where oxidizers are not as old, we costed the addition of PTE which will result in increased flow requirements, and we costed the addition of concentrators. We believe these costing assumptions are reasonable and realistic.

Two commenters claimed that it is not cost effective to push the existing source OCE limit to 98 percent. The commenters stated that the incremental cost of increasing the OCE limit from their proposed 95 percent to 98 percent is approximately \$35,000/ton HAP removed whereas the incremental cost of moving from the current baseline to 95 percent control is approximately \$5,000/ton HAP removed based on an economic assessment done by one of the commenters.

The existing source OCE was not pushed to 98 percent, but rather was determined to be the MACT floor using data available to the Administrator. Consequently, the EPA's economic impact analysis was conducted only for the MACT floor level of 98 percent OCE. The appropriate cost effectiveness analysis considers the cost of reducing

HAP emissions at the MACT floor level of control compared to the baseline level rather than the increment between 95 percent and 98 percent OCE which the commenters suggested. The MACT floor analysis results in a cost effectiveness of approximately \$4,500/ton HAP removed.

One commenter noted that EPA's estimates of the nationwide incremental costs incurred by the coil coating industry to implement the rule were, at proposal, a nationwide total capital investment of \$11.6 million and a total annual cost of \$5.9 million. The commenter strongly disagreed with these cost estimates and cited data from an economic assessment done by their contractor which estimated the total annual incremental costs for the coil coating industry to be approximately \$20.8 million. The commenter believes that EPA's estimate is incorrect because (1) EPA calculated the incremental costs by subtracting baseline costs from the upgrade or replacement cost which they believe assumes the replacement or upgrade would have been necessary for continued compliance with the VOC standards, even in the absence of the new coil NESHAP. (2) The EPA extrapolated nationwide costs by multiplying the model plant costs by the ratio of total HAP emissions reported by all facilities in the facility database divided by the emissions from all plants covered by the model plant analysis. This assumes that EPA has collected HAP emissions data on all existing coil coating lines in the country which is unlikely. (3) The EPA estimated monitoring, recordkeeping, and reporting costs by amortizing certain one time costs over a 15-year period, then adding the annual cost of compliance demonstrations, reports, and recordkeeping. Most permitting agencies would require performance testing, which EPA considered a one time cost, at a greater frequency than 15 years which would cause cost estimates to be understated.

Since we have revised our cost estimates due to corrections needed as described above, our estimated nationwide capital and annual costs have increased (see section V.D of this preamble). The nationwide cost estimates have been revised to incorporate the revised MACT floor costs associated with adding PTE, upgrading or replacing existing oxidizers and installing new condenser systems in some situations as described above. Even with these revisions, EPA's estimated costs are significantly lower than the commenters' costs. The revised nationwide total costs for all plants show an increase in capital costs to

\$18.1 million and an increase in annual costs to \$7.6 million. Regarding the commenters' list of assumptions that should be modified, these assumptions were not changed for the following reason. No assumption concerning continued compliance with VOC standards was made. Estimating upgrade costs as the difference between the baseline and the MACT floor level of control is a technique for deriving incremental costs when detailed site specific data for all sources is not available. The EPA believes that most metal coil surface coating facilities in the country are in the database, therefore, any facilities omitted would lead to a small underestimation of nationwide costs. Finally, regarding the assumption that the control system performance test is a one time cost over the 15-year life of the oxidizer, the NESHAP only requires an initial performance test. Any subsequent testing would not be a result of the NESHAP requirements, but would be at the discretion of the permitting authority. Therefore, the cost of performance testing subsequent to the initial performance test was not attributed to the NESHAP.

One commenter questioned two of the assumptions used by EPA in determining how many facilities will have to make control system upgrades. The commenter submitted that EPA assumed that ten of the facilities would pursue synthetic minor permits and be exempt from the coil NESHAP; however, the commenter believed that there is no certainty in this assumption, as changes in market demand and/or product mix at a facility may require it to pursue a major source title V permit. The commenter also submitted that EPA estimated 26 facilities would be in compliance with the OCE or emission rate limit in the coil NESHAP; however, the commenter believed there are insufficient data to determine whether a facility will be able to comply with the monthly average requirements of the emission rate approach because the ICR data represent annual average emissions of HAP per solids applied, and the equivalent emission rate limit, as proposed, will be enforced on a monthly basis. One commenter noted that EPA's projected HAP emission reduction of 55 percent also appears to be based on the assumption that some facilities could comply with the monthly emission rate limit. The commenter's estimated reduction was based only on achieving 98 percent OCE and was estimated at 77 percent. The commenter believes that the Agency should not rely on speculation of the annual reductions

that will be achieved with the emission rate approach.

The ten facilities that the commenter describes as pursuing synthetic minor permits were facilities in the database reporting being already permitted as synthetic minors. No assumption was made that any facility not permitted as a synthetic minor source would do so to be exempt from the coil NESHAP. The commenter has a valid point that basing the assumption of whether a facility can comply with the emission rate limit during monthly compliance periods on annual emission rate data may be inappropriate. The compliance period for the emission rate limit has been revised to a rolling 12-month period to better reflect the data.

The projected HAP emission reduction (55 percent for the proposed rule; 53 percent for the final rule) is based on assuming that sources would choose the least costly means necessary to achieve either the facility 98 percent OCE or the equivalent emission rate compliance option. We believe it is reasonable to assume that some facilities will choose the emission rate limit as the least costly compliance option, particularly since it has been made less stringent than the proposed limit and since the compliance period has been changed from a monthly average to a rolling 12-month average. The revisions to the emission rate limit will result in a revised estimated HAP emission reduction of 53 percent.

#### *B. Rule Applicability*

Two commenters noted that EPA specifies that both the foil coating and the coil coating operations would be subject to the metal coil NESHAP at facilities that perform both foil and coil coating operations on the same equipment. Facilities coating only foil on their coating equipment would be subject to the Paper and Other Webs (POWC) NESHAP currently under development. The commenters suggested several ways to synchronize these two NESHAP including adopting 95 percent OCE as the MACT floor, revising the emission rate limit to reflect a representative coating with a HAP to solids ratio of 80/20, allowing sources to switch between the POWC rule currently under development and the metal coil rule through their title V permits, or specifying that the governing NESHAP be based on a threshold percentage of production time or of total surface area coated.

The metal coil rule as proposed specified that operations performing both foil coating and coil coating on the same equipment would be subject to the metal coil NESHAP only. The CAA

directs EPA to develop standards that require the maximum degree of reduction in emissions of HAP that is achievable for each source category, which are commonly referred to as MACT standards. For existing major sources, MACT must be no less stringent than the average emission limitation achieved by the best performing 12 percent of sources in the source category, which is referred to as the MACT floor. The 98 percent OCE was established using data submitted by coil coating facilities on their ICR. Data from facilities in the metal coil source category indicates that 98 percent is MACT for this source category. Selecting a 95 percent OCE is, therefore, not an option for the MACT floor.

To arrive at the emission rate limit, we used the average volume solids reported by each MACT floor facility. We used a conservative assumption (i.e., tendency to overestimate HAP) that the entire volatile fraction of the coating was HAP to determine the HAP to solids ratio for a representative coating for the metal coil industry. For proposal, this ratio was 60/40. For the final rule, we revised this ratio, using the average of the coatings with the lowest solids content reported by each facility in the MACT floor. This type of coating represents the most adverse circumstance that could reasonably be expected to occur at a floor facility. The resulting HAP to solids ratio is now 70/30. We believe this higher ratio accounts for the range in coatings used by floor facilities and reflects a HAP/solids mix of coatings that is representative for the metal coil coating industry. The resulting emission rate limit is 0.38lb of HAP/gal of solids. The HAP/solids ratio used to establish the proposed emission rate limit for the POWC rule and the final printing and publishing rule were based on information on coating characteristics for each respective source category and is not, according to our data, representative of coatings on average in the metal coil source category.

The commenters proposed that we allow a cutoff limit based on threshold percentage of activity for each source category which would determine the rule with which a facility would comply. Additional data analysis was done to determine the degree to which overlap occurs. Our data analysis revealed there are six facilities in the metal coil MACT database reporting coating application on substrates of thicknesses less than 0.006 inches, which would be considered foil. One facility reported the percentage of foil coating as confidential business information (CBI). Four facilities

reported less than 25 percent foil coating, making coil coating the principal surface coating activity for their coating lines. However, one facility reported at least 85 percent of the substrate being coated as foil, making foil coating the principal surface coating activity for their coating lines. We believe that coating lines for which 85 percent of the substrate coated is foil would be more appropriately covered by the POWC NESHAP. Therefore, using the available data, we have established a special provision for this particular circumstance. If 85 percent or more of the substrate coated on a line, based on surface area, is of a thickness of less than 0.006 inches, then that line will be covered under the POWC NESHAP currently under development and is not subject to the metal coil surface coating NESHAP. We do not anticipate that establishing this primary use provision at 85 percent will result in a significant negative environmental impact. We expect the provision to apply to a limited number of coating lines (less than ten), and the incremental difference in emission reduction achieved at those lines will be no more than three percent (i.e., the difference between the 98 percent OCE achieved by the metal coil rule versus the 95 percent OCE achieved by the POWC rule). We estimate this difference to be approximately 75 tpy.

Facilities that may have coil and foil coated on the same line, regardless of the percentage of surface area, may opt to subject that line to the metal coil surface coating NESHAP. In addition, facilities that have metal coil and foil coated on separate lines at a facility may opt to include all lines under the metal coil NESHAP if the lines are controlled by a common control device. If for any year a line utilizing this cutoff limit and complying with the POWC NESHAP coats more than 15 percent coil substrate based on surface area, that line will from that point forward be subject to the metal coil NESHAP, and will no longer be able to utilize the cutoff limit option. The applicability section of the final rule has been revised accordingly.

The commenters suggested that sources be allowed to switch between rules through their title V permits when their coating substrate changes. To do this, sources would have to keep records of substrate and coating use separately for the POWC and metal coil rules, as well as calculations for compliance demonstrations and reports for each rule. The 85 percent primary use provision allows facilities to comply with the NESHAP representing their principal coating activity.

One commenter submitted that product and packaging companies applying coatings onto continuous metal substrates greater than 0.006 inch thick for flexible packaging should be exempt from the coil coating MACT rule. The commenter noted that the facility and its process equipment is either already subject to the printing and publishing NESHAP or will be subject to the POWC NESHAP.

We agree that the coating of metal substrates for the purpose of flexible packaging is an operation that is covered under the proposed POWC NESHAP. The final rule has been revised to clarify that the metal coil NESHAP does not apply to substrates coated for flexible packaging.

One commenter noted that the proposed applicability section 40 CFR 63.5090 provides that "The provisions of this subpart apply to each facility that is a major source of HAP, as defined in § 63.2, at which a *coil coating line is operated*" (underlined emphasis added). The commenter submitted that the phrase "coil coating line is operated" is not defined and "coil coating line" includes any coating operation, including those operations EPA seeks to exclude in the definition of "coating" in 40 CFR 63.5110. The commenter requested clarification of the proposed applicability section to clearly identify regulated facilities using the terms defined at proposed 40 CFR 63.5110.

We agree with the commenter that the proposed applicability language was not clear. The definition of coil coating line in section 63.5110 has been revised as follows: "coil coating line means a process and the collection of equipment used to apply an organic coating to the surface of a metal coil." The definition of coil coating operation has been removed from that section. This revision addresses the commenter's concern.

Two commenters requested that EPA specifically state in the preamble that all of the equipment included as part of ancillary operations has been evaluated under the metal coil NESHAP and, thus, is exempt from the proposed Miscellaneous Organic NESHAP (MON) (67 FR 16154, April 4, 2002).

The NESHAP to which the commenters refer would regulate coating manufacturing operations and would require controls on the following emission sources: storage tanks, process (mixing) vessels, equipment components, wastewater treatment and conveyance systems, transfer operations, and ancillary sources such as heat exchange systems. As the commenter stated, we evaluated all of the equipment included as part of ancillary operations as we developed

the proposed rule. We requested control and emissions information on these operations as part of our information collection request. However, the information we received was not sufficiently detailed to give a clear picture of the level of control achieved for these operations. For example, mixing can occur at the coating application station inside a PTE, or it can occur at a location away from the application station without an enclosure. If a facility reported achieving 98 per cent control of mixing tanks, it was not clear if all mixing was controlled at this level or only a portion of the mixing. Due to the lack of detailed information available, we were not able to determine a MACT floor for such equipment. Consequently, equipment that is part of ancillary operations is not included in the affected source for these standards.

The proposed MON is not intended to apply to the end users of manufactured coatings. As proposed, it will apply only to sources that manufacture coatings described by SIC codes 285 or 289 or NAICS code 3255. Metal coil coating facilities are not typically in these SIC and NAICS codes and, therefore, would not be subject to the MON, as proposed. If a facility does meet the proposed definition of a coating manufacturer in the MON, its ancillary operations would most likely not meet the criteria used to determine whether controls are required (e.g., the capacity of mixing vessels and storage tanks, or the concentration of total organic HAP in wastewater). The MON preamble specifically requests comment on the costs of controlling emissions and appropriate size cutoffs for coating manufacturers who produce coatings for their own use. Facilities that are potentially affected by the proposed MON or concerned about how it may apply to coating users may view comments received on the MON proposal by accessing Docket Number A-96-04.

#### C. Definitions

Several commenters submitted that the definition of "deviation" in the proposed rule is very broad or overly complicated and requested that the definition be deleted. The commenters are concerned that all deviations may be considered violations of the standards. Two commenters requested that in place of the term "deviation," we include a definition for "excursion" or "monitoring excursion."

We are using the term "deviation" to standardize the regulatory language used in NESHAP and to avoid any confusion that might be caused by using multiple, related terms such as excess

emission, exceedence, excursion, and deviation in the same regulatory program. In the final rule, the definition of deviation clarifies that any failure to meet an emission limitation (including an operating limit or work practice standard) is a deviation, regardless of whether such a failure is specifically excused or occurs at times when the emission limitations do not apply, for example, during startup, shutdown, or malfunction. The enforcement authority determines violations. The definition of deviation is consistent with the use of the term deviation in the title V operating permit program.

#### D. MACT Floor Determination

One commenter asserted that the approach followed by EPA in setting the OCE MACT floor was flawed and proposed an alternative approach to setting the MACT floor. The commenter points out that the CAA gives EPA no direction on how to determine which sources are "best performing," accordingly, EPA has maximum flexibility in making that determination. In the commenter's approach, the plants in their database operating with add-on controls were sorted from the lowest to the highest post-control HAP emissions in terms of lbs of HAP per lbs of solids applied. The OCE was calculated for each facility, and the arithmetic mean of the best performing 12 percent of the data set was calculated at 93.6 percent. The commenter asserts that this approach to setting the MACT floor is more appropriate than EPA's method because it better defines the "best performing sources," basing performance on the amount of HAP emitted per solids applied rather than just focusing on OCE. The commenter claims that this approach also generates a more diverse group of coating lines in the MACT floor facilities than EPA's method. The commenter submitted that EPA followed a flexible approach in setting MACT floors for other NESHAP because of the diversity of industry sectors and types and formulation of coatings used, diversity that is also found in the coil coating industry.

We agree that we have flexibility in determining what constitutes the best-performing 12 percent of sources; however, using the methodology proposed by the commenter erroneously accepts that low post-controlled emissions is the result of OCE alone. Post-controlled emissions most often reflect a combination of low-HAP coating formulation and OCE. Given the nature of the metal coil surface coating process and the prevalence of add-on controls in the industry, we determined that ranking facilities by the highest

level of control their control devices achieve is the correct method of establishing the best performers. This methodology generated a universe of floor facilities that represents the diversity of facilities in the industry. The floor facilities coat the range of product types found in the metal coil coating source category.

Several commenters asserted that the proposed OCE of 98 percent is too stringent for existing sources. The commenters supported an OCE of 95 percent for existing sources and 98 percent for new sources. The commenters submitted that thermal oxidation (the overwhelming choice for VOC/HAP control in the coil coating industry) is limited to achieving 98 percent destruction efficiency for new, properly designed units and that existing thermal and catalytic oxidizers cannot achieve 98 percent destruction efficiency on a long-term, continuous basis.

The EPA used data submitted by coil coating facilities on their ICR as the primary basis for establishing a 98 percent OCE. Reported values show that these control systems are capable of achieving greater than 99 percent HAP destruction, based on 100 percent capture and greater than 99 percent destruction efficiencies. The average reported OCE of the MACT floor facilities is 99.4 percent. To determine the level of emission control that is consistently achievable with this technology, we also considered the level of control that the EPA has generally found to be achievable. In addition to general EPA guidance, available literature was reviewed and state agencies and vendors of control equipment were contacted (docket No. A-97-47) for further information indicating the appropriate control efficiency for thermal oxidizers. All of these sources indicate that thermal oxidizers routinely achieve destruction efficiencies of at least 98 percent.

With respect to the performance of catalytic oxidizers, for inlet concentrations greater than 100 ppm, catalytic oxidizers can achieve 95 to 98 percent destruction (docket No. A-97-47). Though 95 percent destruction is typical, 98 percent can be achieved through the use of larger catalyst volumes and/or higher temperatures.

#### *E. Achievability of the Standards*

Several commenters submitted that the emission rate limit should be less restrictive. One commenter presented an alternative emission rate proposal based on upper-bound HAP formulation. Under the commenter's proposal, the average minimum solids content for the

eleven floor facilities is 29.1 percent solids by volume. Therefore, the commenters request that EPA use a representative coating of 30 percent solids and 70 percent HAP to derive the equivalent emission rate compliance option instead of the 40 percent solids and 60 percent HAP ratio used for the proposed standard. The representative coating would then yield a precontrol emission rate of 18.5 lbs HAP/gal solids applied, which then generates an equivalent emission rate of 0.37 lb HAP/gal solids applied when factored by the 98 percent OCE. The commenters also requested that the compliance averaging period be a 12-month rolling average. This would account for the use of annual average data in the derivation of the equivalent emission rate and the significant variability in the types of coatings toll coaters typically apply over a 1-year period.

We agree with the commenter that in this case, the emission rate limit should be a rolling 12-month emission rate because the data on which the limit was set reflect annual averages and some segments of the coil coating industry may experience significant variation from month to month in types of coatings used and their HAP contents. This revision has been incorporated into § 63.5170 of the final rule. In addition, we agree that the alternative emission rate limit and compliant coating option should be revised to reflect the average of the lowest solids/highest HAP applied by the MACT floor facilities in the database. The revised emission rate limit and compliant coating option is 0.38 lb of HAP per gallon of solids applied during each 12-month compliance period.

Several commenters submitted that EPA has proposed a single set of emission standards to regulate the entire coil coating industry, thereby failing to account for the significant diversity in various segments of the industry. One commenter requested that EPA subcategorize or, at a minimum, set different emission limits for different types of coil coating operations based on coating use (water-borne or solvent-borne), end use industrial sector or the type of coating business (toll coating versus captive coating). Two of the commenters note that EPA specifically requested comment on the appropriateness of requiring the proposed emission limits for electrodeposition coating (e-coat) lines using water-borne coatings that comply with NSPS and reasonably available control technology (RACT) VOC limits. One commenter added that the MACT floor facilities on which the emission limits are based are comprised of a

disproportionate number of coating lines that produce stock for architectural and building products, a segment of the coil coating industry characterized by application of solvent-borne coatings with significant HAP content and use of enhanced VOC control systems.

We agree with the commenters that there is some diversity in the industry and designed the standard with sufficient flexibility to accommodate that diversity. It was based on emission control levels achieved by the MACT floor facilities which included most segments of the industry. The emission standard is in two different formats and allows four options for demonstrating compliance, providing significant compliance flexibility for the various segments of the industry. The various options for demonstrating compliance with the emission rate limit provide viable alternatives for facilities using water-borne coatings, electrodeposition coating lines, or solvent borne coatings with relatively higher solids and lower HAP contents than facilities that choose to comply with the 98 percent OCE. To account for the variability in coatings used from month to month and to allow for the most adverse conditions that could be expected, we revised the emission rate limit and compliant coating option to reflect the lowest levels of solids used at facilities over a year. In addition to this, the final rule provides a rolling 12-month compliance period over which emission rates are determined rather than a block month compliance period. These allowances and adjustments to the final rule provide greater flexibility for compliance than subcategorization or dividing facilities into sectors and setting a separate limit for each sector.

One commenter submitted that due to differences in operations and coating type, water-based deck lines with in-line tandem coating and roll forming operations must be considered separately from and treated differently than traditional coil coating lines using solvent-based coatings and requested that a water-based compliant emission rate alternative of 0.518 lb of HAP/gal of solids applied (i.e., 0.062 kg/l) be established because it is the lowest water-based HAP emission rate commercially demonstrated for all colors and all seasons of the year.

A compliant coating option in the form of an emission rate was included in the proposed rule and has been revised to be less stringent in the final rule. The final emission rate is 0.38 lb organic HAP per gallon of coating solids applied, averaged over a 12-month period. This compliance option was included as a pollution prevention

alternative for facilities using coatings that contain lower levels of HAP so that the application of controls like those needed for higher-HAP coating operations would not be necessary. Of the six facilities in the MACT database operating water-based deck lines, at least two of the facilities should be able to comply using this option without reformulating coatings or applying any controls. Data submitted by the remaining four deck facilities indicate that they will need neither oxidizers nor PTE to achieve the emission rate limit. They would be able to achieve the needed emission reductions using other options such as reformulation or solvent recovery. The commenter suggested an emission rate limit of 0.518 lb HAP per gallon of coating solids applied because purportedly, it is the lowest rate that can be achieved for all colors and for all seasons. We believe the final emission rate of 0.38 lb/gallon is achievable, in part, because the standard allows averaging of all coatings across a 12-month period. Thus, a source would be able to offset usage of higher-HAP coatings, such as the one the commenter describes, with usage of lower-HAP coatings at other times in order to average below the emission rate limit over 12 months. Therefore, given the compliance alternatives, EPA believes that the final rule provides sufficient flexibility for sources such as these to comply.

#### F. Monitoring

Three commenters submitted that it is inappropriate to use the catalyst bed outlet temperature as a continuous compliance operating parameter because the temperature rise across the bed is a function of the total VOC loading to the oxidizer. One of the commenters noted that the preamble discussion of monitoring requirements for catalytic incinerators (65 FR 44619) stated that the facility must establish operating parameters as the minimum gas temperatures both upstream and downstream of the catalyst bed; the appropriate section of the proposed Coil NESHAP (§ 63.5160(d)(3)) stated that the operating parameter for a catalytic oxidizer is limited to the minimum gas temperature at the inlet to the catalyst bed.

Our intent was to include in § 63.5160(d)(3) of the proposed rule that both the outlet temperature and the inlet temperature be used as the operating parameters for catalytic oxidizers, in order to calculate the temperature change across the catalyst bed. This temperature change is indicative of catalyst activity. The final rule has been corrected to agree with the proposal

preamble discussion and to clarify the original intent. Also, an alternative to this monitoring has been added to the rule. In lieu of monitoring the inlet and outlet gas temperatures to calculate temperature change across the catalyst bed, facilities may meet a minimum gas temperature at the inlet to the catalyst bed established during the performance test and develop and implement an inspection and maintenance plan for the catalytic oxidizer.

One commenter noted that there are no specifications for monitoring system accuracy, calibration frequency, etc. in § 63.5150(a)(4) of the rule for capture systems. The commenter submitted that the standard should spell out what monitoring should be done, how to set the operating parameters (including appropriate averaging time) and specify reporting for various capture system options as it does for control equipment options.

At the time of proposal of this NESHAP, we had not developed criteria for the monitoring of capture systems and proposed some minimum criteria for facilities to follow to develop monitoring plans for their site-specific conditions. After proposal of this NESHAP, we developed criteria to be used for setting operating parameter limits for monitoring capture systems. These criteria will be included in implementation materials we are developing for the final metal coil surface coating rule as an example that facilities may follow in developing their monitoring plans.

#### G. Administrative Requirements

One commenter asserted that EPA's conclusion that the coil coating MACT proposal was not a significant regulatory action subject to Office of Management and Budget (OMB) review under Executive Order 12866 is wrong because it is in direct conflict with express CAA provisions requiring the reduction of ozone precursors such as NO<sub>x</sub> and with the avowed policies of the Clinton-Gore Administration to reduce greenhouse gas emissions. The commenter asserts, in the terms set forth in the Executive Order, EPA's 98 percent OCE standard creates a "serious inconsistency or otherwise interferes" with actions taken or planned by EPA, by other agencies, and by the President to reduce ozone concentrations across the country and to reduce greenhouse gas emissions. Additionally, the commenter alleges the 98 percent OCE, at a minimum, raises "novel legal or policy issues" regarding whether EPA has made the correct choice between HAP emissions and NO<sub>x</sub> and carbon dioxide emissions. The commenter estimates that establishing a

98 percent OCE limit instead of their proposed 95 percent OCE will cause approximately 230 tpy additional NO<sub>x</sub> and 279,000 tpy additional carbon dioxide per year to reduce HAP emissions by an incremental 590 tpy. Accordingly, the commenter asserts that EPA must submit the coil coating MACT standard to OMB review under the terms of the Executive Order.

We do not agree that the coil coating NESHAP is a significant regulatory action subject to OMB review under Executive Order 12866. It does not meet any of the criteria for such a classification, including the "novel legal or policy issues" criterion. The EPA's estimates for NO<sub>x</sub> and CO<sub>2</sub> emissions increases resulting from the standard are significantly lower than the commenter's estimates. We estimate these increases to be about 3 percent above baseline emissions, while HAP emissions reductions of 53 percent will be achieved by this standard. Therefore, the final metal coil NESHAP was not submitted to OMB for review.

The commenter believes that EPA also incorrectly determined that the coil coating standard would not significantly impact a substantial number of small entities. The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), requires Federal regulatory agencies to determine whether a proposed or final regulation will have a significant impact on a substantial number of small entities. According to "EPA Interim Guidance for Implementing the Small Business Regulatory Enforcement Fairness Act and Related Provisions of the Regulatory Flexibility Act" (EPA, 1997f), current Agency policy is to implement the RFA as written; that is, "regulatory flexibility analyses as specified by the RFA will not be required if the Agency certifies that the rule will not have significant economic impact on a substantial number of small entities." However, it remains Agency policy that, even when the Agency makes a certification of "no significant impact," program offices should assess the impact of every rule on small entities and minimize any impact to the extent feasible, regardless of the size of the impact or the number of small entities affected.

In accordance with SBREFA and Agency guidance, a screening analysis was conducted for the MACT floor and its projected costs to determine if the rule imposed a significant impact on a substantial number of small entities. The Agency also calculated the share of annual compliance cost relative to baseline sales for each company. This approach is consistent with

recommended criteria from EPA's Guidance on Implementing SBREFA and RFA for evaluating the economic impact of a rule on small entities. These results do not support a claim of significant impact on a substantial number of small businesses.

#### **V. What Are the Environmental, Energy, Cost, and Economic Impacts?**

As explained below, we do not expect any significant adverse environmental or energy impacts resulting from the final rule. Any negative economic impacts are also expected to be small. Actual compliance costs will depend on each source's existing equipment and the modifications made to comply with the standard. We have estimated that the installation of PTE and the installation of, or improvement to, thermal oxidizers at existing facilities could require nationwide capital costs of approximately \$18.1 million and annual costs of about \$7.6 million. Costs could be much lower if facilities choose to use low-HAP coatings.

##### *A. What Are the HAP Emissions Reductions?*

For existing sources in the metal coil coating industry, the nationwide baseline HAP emissions are estimated to be 2,258 Mg/yr (2,484 tpy). We estimate that implementation of the final rule will reduce emissions from these sources by 1,198 Mg/yr (1,318 tpy), or approximately 53 percent.

Since the emission limits for new and existing sources are the same, emission reductions for new sources are expected to be similar to the 53 percent emission reduction estimated for existing sources.

##### *B. What Are the Secondary Environmental Impacts?*

Secondary environmental impacts are considered to be any air, water, or solid waste impacts, positive or negative, associated with the implementation of the final standards. These impacts are exclusive of the direct organic HAP air emission reductions discussed in the previous section.

Most of the organic HAP are VOC. Capture and control of HAP that are presently emitted will result in a decrease in VOC emissions. In addition, the emission control systems used to reduce HAP emissions will reduce non-HAP VOC emissions as well. We do not have information on non-HAP VOC emissions from metal coil coating operations; consequently, we cannot quantify the reduction of VOC emissions. However, the percent reduction should be similar to the percent reduction in HAP emissions (i.e., about 53 percent). Emissions of

VOC have been associated with a variety of health and welfare impacts. The VOC emissions, together with nitrogen oxides, are precursors to the formation of ground level ozone, or smog. Exposure to ambient ozone is responsible for a series of public health impacts such as alterations in lung capacity and aggravation of existing respiratory disease. Ozone exposure can also damage forests and crops.

The use of newly installed or upgraded control devices will result in greater electricity consumption. Increases in emissions of nitrogen oxides, sulfur dioxide, carbon monoxide, and carbon dioxide, as well as certain HAP, from electric utilities could result. In the metal coil coating industry, some plants will comply by installing or upgrading oxidizers. Supplemental fuel, typically natural gas, will be used, particularly for thermal oxidizers. Combustion of this fuel will result in additional carbon dioxide emissions and may result in additional emissions of nitrogen oxides and carbon monoxide. We estimate that if increases in these emissions occur, they will be small (about three percent above baseline).

A small number of facilities using waterborne coatings may install condenser systems to comply with the standard. This would result in the generation of wastewater streams that may require treatment to remove the HAP. It also is expected that some metal coil coating facilities will comply with the proposed standard by substituting non-HAP materials for HAP presently in use. In some cases, the non-HAP materials may be VOC, however, in other cases, non-VOC (e.g., water) materials may be used. Facilities converting to waterborne materials as a means or partial means of compliance may have reduced Resource Conservation and Recovery Act hazardous waste disposal if the status of the waste material changes from hazardous to nonhazardous. An increase in wastewater discharge may occur if waste material and waterborne wash-up materials are discharged to publicly owned treatment works.

New and upgraded catalytic oxidizers will require catalysts. Catalyst life is estimated to be more than 10 years. Spent catalysts will represent a small amount of solid waste, and sometimes the spent catalyst will be regenerated by the manufacturer for reuse. Activated carbon used in solvent recovery systems is returned to the manufacturer at the end of its useful life and converted to other salable products. Little solid waste impact is expected from this source.

##### *C. What Are the Energy Impacts?*

The operation of new and upgraded control devices will require additional energy. Capture of previously uncontrolled solvent-laden air will require fan horsepower. Operation of oxidizers, particularly thermal oxidizers, may require supplemental fuel (typically natural gas).

The total additional electrical energy required to meet the standard is estimated to be 2.3 million kilowatt-hours per year. Nationwide incremental natural gas usage is expected to increase by approximately 170 million standard cubic feet per year.

##### *D. What Are the Cost Impacts?*

The total nationwide capital and annualized costs (1997 dollars) attributable to compliance with the final standards have been estimated for existing sources. These costs are based on model plant analysis of the least-cost measure using HAP emission controls needed for facilities to attain one of the compliance options. For existing facilities, with the exception of facilities applying waterborne coatings that do not meet the emission rate limit, the compliance costs represent the incremental costs associated with upgrading existing HAP emission controls.

*Compliance Costs for New Sources.* Since the HAP emission limits for existing and new sources are the same, the incremental costs required to replace existing HAP emission controls are an indication of the incremental costs (above baseline level controls) that will be incurred by new sources to install and operate the level of HAP emission controls required to achieve the emission limits. For example, for a small coating line with one application station enclosed by a PTE and a thermal oxidizer to control HAP emissions, the incremental capital costs are estimated to be about \$184,000, and the annual costs including monitoring, recordkeeping, and reporting costs approximately \$73,000. Similarly, for a large coating line with two application stations enclosed by PTE and two thermal oxidizers, the incremental capital costs are estimated to be about \$392,000 and the annual costs around \$174,000, including monitoring, recordkeeping, and reporting costs. A coating line applying waterborne coatings is estimated to incur capital costs of around \$1,008,000 and annual costs of approximately \$371,000, including monitoring, recordkeeping, and reporting to install and operate a condenser system to control HAP emissions.



The incremental costs incurred for coating lines controlled by thermal incinerators include retrofit factors, and, thus, for new sources the incremental costs are probably overstated. Nonetheless, the estimated costs should not deter the construction of new metal coil coating lines or the entry of new companies into the industry.

#### *Capital Costs for Existing Sources.*

Capital costs will be incurred by installing capture and control systems at those facilities presently without controls and upgrading capture and control systems at existing facilities that do not meet the final standard. Additionally, the purchase of monitoring equipment may be needed as a capital investment to meet the monitoring, recordkeeping, and reporting requirements of the NESHAP. Total nationwide capital costs are estimated at \$18.1 million, based on the use of PTE, thermal oxidizers, solvent recovery systems, and monitoring equipment. The total nationwide capital costs with other methods of control are expected to be lower.

#### *Annual Costs at Existing Sources.*

Total nationwide annual costs of the final standard have been estimated at approximately \$7.6 million per year with the use of PTE and new or upgraded thermal oxidizers or solvent recovery systems. These costs include capital recovery over a 15-year period, operating costs for the newly installed and upgraded capture and control systems, and costs for monitoring, recordkeeping, and reporting. These are net costs after taking into account the costs presently being incurred for the baseline control level. The total nationwide annual costs with methods of control other than thermal oxidizers are expected to be lower.

#### *E. What Are the Economic Impacts*

The Economic Impact Analysis (EIA) (included in the background information document (BID), EPA 453/P-00-001) shows that the expected price increase for coated metal coils would be approximately 0.2 percent as a result of the proposed standards. Therefore, no adverse impact is expected to occur for those industries that consume coated metal coils such as building and construction, appliances, automotive parts, and other consumer products.

The distribution of costs across metal coil coating facilities is slanted toward the lower impact levels with many facilities incurring no costs or only those related to initial performance testing and annually recurring monitoring, recordkeeping, and reporting. The EIA indicates that these

regulatory costs are expected to represent less than 1 percent of the value of coating services, which should not cause producers to cease or alter their current operations. Hence, no firms or facilities are at risk of closure because of the proposed standards. For more information, consult the docket for this project.

#### **IV. What Are the Administrative Requirements?**

##### *A. Executive Order 12866, Regulatory Planning and Review*

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether the regulatory action is "significant" and therefore subject to review by OMB 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 obligations 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.

Pursuant to the terms of Executive Order 12866, it has been determined that this rule is not a "significant regulatory action" because none of the listed criteria apply to this action. Consequently, this action was not submitted to OMB for review under Executive Order 12866.

##### *B. 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 regulations 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." Under

section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. The EPA also may not issue a regulation that has federalism implications and that preempts State law, unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This rule will 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, the requirements of section 6 of the Executive Order do not apply to this rule. Although section 6 of Executive Order 13132 does not apply to this rule, the EPA did consult with State and local officials to enable them to provide timely input in the development of this rule.

##### *C. 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 final rule does not have tribal implications, as specified in Executive Order 13175. No tribal governments own or operate metal coil coating operations. Thus, Executive Order 13175 does not apply to this final rule.

##### *D. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks*

Executive Order 13045 (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, the 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. Today's rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks and because it is not "economically significant."

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

This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (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), Public Law 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 by State, local, and tribal governments, in the 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 this 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 rule does not impose any enforceable duties on State, local, or tribal governments, i.e., they own or operate no sources subject to this rule and, therefore, are not required to purchase control systems to meet the requirements of this rule. Regarding the private sector, EPA believes the rule will affect approximately 90 existing facilities nationwide. The EPA projects that annual economic effects will be \$7.6 million. Thus, today's rule is not subject to the requirements of sections 202 and 205 of the UMRA. Nevertheless, in developing this rule, EPA consulted with States to enable them to provide meaningful and timely input in the development of this rule.

In addition, the EPA has determined that this 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 rule is not subject to the requirements of section 203 of the 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 agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) a small business according to Small Business Administration (SBA) size standards by NAICS code of the owning entity (in this case, ranging from 100-1,000

employees; see table below); (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 and SBREFA, EPA conducted an assessment of the standard on small businesses within the metal coil coating industry. Based on SBA size definitions and reported sales and employment data, EPA identified 19 of the 49 companies owning metal coil coating facilities as small businesses. Although small businesses represent almost 39 percent of the companies within the source category, they are expected to incur only 8.5 percent of the total industry compliance costs of approximately \$6.0 million. The average annual compliance cost share of sales for small businesses is less than 0.2 percent with 7 of the 19 small businesses not expected to incur any additional costs because they are permitted as synthetic minor HAP emission sources. After considering the economic impacts of today's rule on small entities, we determined that this action will not have a significant economic impact on a substantial number of small entities.

Although this rule will not have a significant economic impact on a substantial number of small entities, we nonetheless tried to limit its impact on small entities. For example, the requirements of the rule only apply to major sources as defined in 40 CFR part 63 and a title V or part 70 permit application can be used in lieu of an initial notification under certain conditions. Also, during the background information development phase of the rulemaking, numerous stakeholder meetings were held at which input was solicited from small entities.

#### *H. Paperwork Reduction Act*

The information collection requirements in this rule will be submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, et seq. An ICR document has been prepared by EPA (ICR No. 1957.01) and a copy may be obtained from Sandy Farmer by mail at the Collection Strategies Division (2822), U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, by email at [farmer.sandy@epa.gov](mailto:farmer.sandy@epa.gov), or by calling (202) 260-2740. A copy may also be downloaded off the internet at <http://www.epa.gov/icr>. The information requirements are not effective until OMB approves them.

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. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

The public burden of monitoring, recordkeeping, and reporting for this collection is estimated to average 281 hours per year per coil coating facility for each year after the date of promulgation of the rule including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Monitoring, recordkeeping, and reporting costs also include the startup costs associated with initial performance tests and associated notifications and reports required to demonstrate initial compliance; emission rate limit monthly compliance determinations; semiannual reports when someone does not follow a plan for startups, shutdowns, and malfunctions; quarterly and semiannual reports on excess emissions; maintenance inspections; notices; and recordkeeping. The total annualized costs associated with monitoring, recordkeeping, and reporting have been estimated at \$784,179 which include the estimated annualized capital costs of \$232,076.

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. This 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 regulations are in 40 CFR part 9 and 48 CFR chapter 15.

Comments are requested on the EPA's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, Collection Strategies Division (2822), U.S. EPA, 1200 Pennsylvania Ave., NW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503 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 June 10, 2002, a comment to OMB is best assured of having its full effect if OMB receives it by June 10, 2002.

#### *I. National Technology Transfer and Advancement Act of 1995*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA) (Public Law No. 104-113; 15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

This 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-F, and 311. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards 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 (docket No. A-97-47) for this rule.

The three voluntary consensus standards described below were identified as acceptable alternatives to

EPA test methods for the purposes of this rule.

The voluntary consensus standard ASME PTC 19-10-1981-Part 10, "Flue and Exhaust Gas Analyses," is cited in this rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. This part of ASME PTC 19-10-1981-Part 10 is an acceptable alternative to Method 3B.

The two voluntary consensus standards, 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 this rule as acceptable alternatives to EPA Method 24 to determine the volume solids content of coatings. Currently, EPA Method 24 does not have a procedure for determining the volume of solids in coatings. These standards augment the procedures in Method 24, which currently states that volume solids content be calculated from the coating manufacturer's formulation.

Six voluntary consensus standards: 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 in EPA Method 24. Five voluntary consensus standards: ASTM D1979-91, ASTM D3432-89, ASTM D4747-87, ASTM D4827-93, and ASTM PS9-94 are incorporated by reference in EPA Method 311.

In addition to the voluntary consensus standards EPA proposes to use in this rule, the search for emissions measurement procedures identified 11 other voluntary consensus standards. The EPA determined that nine of these 11 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in this rule were impractical alternatives to EPA test methods for the purposes of this rule. Therefore, EPA does not intend to adopt these standards for this purpose. The reasons for this determination for the nine methods are discussed below.

The voluntary consensus standard 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 this 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 been 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 voluntary consensus standard 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 this 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 these areas.

The voluntary consensus standard 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 this 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.

Two voluntary consensus standards, 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 this 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 this low are too limited to be useful in measuring source emissions, which are expected to be much higher.

The voluntary consensus standard, 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 requires 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 this rulemaking because they lack in detail and quality assurance/quality control requirements. Specifically, these 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 voluntary consensus standard 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. This 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 3-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 these quality control features are required by the ISO standard.

Two of the 11 voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of this rule because they are under development by a voluntary consensus body: ASME/BSR

MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); and ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2.

Section 63.5160 to subpart SSSS of this standard list the EPA testing methods included in the regulation. Under § 63.7(f) of Subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods in place of any of the EPA testing methods.

#### *J. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801, *et seq.* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

#### **List of Subjects in 40 CFR Part 63**

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: May 15, 2002.

**Christine Todd Whitman,**  
*Administrator.*

For reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is 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. Section 63.14 is amended by revising paragraph (b) introductory text and adding new paragraphs (b)(24) and (25) and (j) to read as follows:

#### **§ 63.14 Incorporations by reference.**

\* \* \* \* \*

(b) The following materials are available for purchase from at least one of the following addresses: American

Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

\* \* \* \* \*

(24) ASTM D2697-86(1998) (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for § 63.5160(c).

(25) ASTM D6093-97, Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for § 63.5160(c).

\* \* \* \* \*

(j) The following material is available for purchase from at least one of the following addresses: ASME International, Orders/Inquiries, P.O. Box 2300, Fairfield, NJ 07007-2300; or Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112; ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, IBR approved for § 63.5160(d)(1)(iii).

3. Part 63 is amended by adding subpart SSSS to read as follows:

**Subpart SSSS—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil**

Sec.

**What This Subpart Covers**

- 63.5080 What is in this subpart?
- 63.5090 Does this subpart apply to me?
- 63.5100 Which of my emissions sources are affected by this subpart?
- 63.5110 What special definitions are used in this subpart?

**Emission Standards and Compliance Dates**

- 63.5120 What emission standards must I meet?
- 63.5121 What operating limits must I meet?
- 63.5130 When must I comply?

**General Requirements for Compliance with the Emission Standards and for Monitoring and Performance Tests**

- 63.5140 What general requirements must I meet to comply with the standards?
- 63.5150 If I use a control device to comply with the emission standards, what monitoring must I do?
- 63.5160 What performance tests must I complete?

**Requirements for Showing Compliance**

- 63.5170 How do I demonstrate compliance with the standards?

**Reporting and Recordkeeping**

- 63.5180 What reports must I submit?
- 63.5190 What records must I maintain?

**Delegation of Authority**

- 63.5200 What authorities may be delegated to the States?
- 63.5201-63.5209 [Reserved]

**Tables to Subpart SSSS of Part 63**

Table 1 to Subpart SSSS of Part 63. Operating Limits if Using Add-on Control Devices and Capture System

Table 2 to Subpart SSSS of Part 63.

Applicability of General Provisions to Subpart SSSS

**What This Subpart Covers**

**§ 63.5080 What is in this subpart?**

This subpart describes the actions you must take to reduce emissions of hazardous air pollutants (HAP) if you own or operate a facility that performs metal coil surface coating operations and is a major source of HAP. This subpart establishes emission standards and states what you must do to comply. Certain requirements apply to all who must comply with the subpart; others depend on the means you use to comply with an emission standard.

**§ 63.5090 Does this subpart apply to me?**

(a) The provisions of this subpart apply to each facility that is a major source of HAP, as defined in § 63.2, at which a coil coating line is operated, except as provided in paragraph (b) of this section.

(b) This subpart does not apply to any coil coating line that meets the criteria of paragraph (b)(1) or (2) of this section.

(1) A coil coating line that is part of research or laboratory equipment.

(2) A coil coating line on which at least 85 percent of the metal coil coated, based on surface area, is less than 0.15 millimeter (0.006 inch) thick, except as provided in paragraph (c) of this section.

(c) If you operate a coating line subject to subpart JJJJ of this part that also meets the criteria in either paragraph (c)(1) or (2) of this section, and you choose to comply with the requirements of this subpart, then such compliance constitutes compliance with subpart JJJJ. The coating line for which you choose this option is, therefore, included in the affected source for this subpart as defined in § 63.5110 and shall not be included in the affected source for subpart JJJJ as defined in § 63.3300.

(1) The coating line is used to coat metal coil of thicknesses both less than and greater than or equal to 0.15 millimeter (0.006 inch) thick, regardless of the percentage of surface area of each thickness coated.

(2) The coating line is used to coat only metal coil that is less than 0.15 millimeter (0.006 inch) thick and the coating line is controlled by a common control device that also receives organic HAP emissions from a coil coating line that is subject to the requirements of this subpart.

(d) Each coil coating line that does not comply with the provisions of this subpart because it meets the criteria in paragraph (b)(2) of this section, that for any rolling 12-month period fails to meet the criteria in paragraph (b)(2) would from that point forward become subject to the provisions of this subpart. After becoming subject to the provisions of this subpart, the coil coating line would no longer be eligible to use the criteria of paragraph (b)(2) of this section, even if in subsequent 12-month periods at least 85 percent of the metal coil coated, based on surface area, is less than 0.15 millimeter (0.006 inch) thick.

**§ 63.5100 Which of my emissions sources are affected by this subpart?**

The affected source subject to this subpart is the collection of all of the coil coating lines at your facility.

**§ 63.5110 What special definitions are used in this subpart?**

All terms used in this subpart that are not defined in this section have the meaning given to them in the Clean Air Act (CAA) and in subpart A of this part.

*Always-controlled work station* means a work station associated with a curing oven from which the curing oven exhaust is delivered to a control device with no provision for the oven exhaust to bypass the control device. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

*Capture efficiency* means the fraction of all organic HAP emissions generated by a process that is delivered to a control device, expressed as a percentage.

*Capture system* means a hood, enclosed room, or other means of collecting organic HAP emissions and conveying them to a control device.

*Car-seal* means a seal that is placed on a device that is used to change the position of a valve or damper (e.g., from open to closed) in such a way that the position of the valve or damper cannot be changed without breaking the seal.

*Coating* means material applied onto or impregnated into a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealants, inks, adhesives, maskants, and temporary coatings. Decorative, protective, or functional materials that consist only of solvents, protective oils, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

*Coating material* means the coating and other products (e.g., a catalyst and resin in multi-component coatings) combined to make a single material at

the coating facility that is applied to metal coil. For the purposes of this subpart, an organic solvent that is used to thin a coating prior to application to the metal coil is considered a coating material.

*Coil coating line* means a process and the collection of equipment used to apply an organic coating to the surface of metal coil. A coil coating line includes a web unwind or feed section, a series of one or more work stations, any associated curing oven, wet section, and quench station. A coil coating line does not include ancillary operations such as mixing/thinning, cleaning, wastewater treatment, and storage of coating material.

*Control device* means a device such as a solvent recovery device or oxidizer which reduces the organic HAP in an exhaust gas by recovery or by destruction.

*Control device efficiency* means the ratio of organic HAP emissions recovered or destroyed by a control device to the total organic HAP emissions that are introduced into the control device, expressed as a percentage.

*Curing oven* means the device that uses heat or radiation to dry or cure the coating material applied to the metal coil.

*Day* means a 24-consecutive-hour period.

*Deviation* means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during start-up, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

*Existing affected source* means an affected source the construction of which commenced on or before July 18, 2000, and it has not subsequently undergone reconstruction as defined in § 63.2.

*Facility* means all contiguous or adjoining property that is under common ownership or control, including properties that are separated

only by a road or other public right-of-way.

*Flexible packaging* means any package or part of a package the shape of which can be readily changed. Flexible packaging includes but is not limited to bags, pouches, labels, liners and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.

*HAP applied* means the organic HAP content of all coating materials applied to a substrate by a coil coating line.

*Intermittently-controllable work station* means a work station associated with a curing oven with provisions for the curing oven exhaust to be delivered to a control device or diverted from a control device through a bypass line, depending on the position of a valve or damper. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

*Metal coil* means a continuous metal strip that is at least 0.15 millimeter (0.006 inch) thick, which is packaged in a roll or coil prior to coating. After coating, it may or may not be rewound into a roll or coil. Metal coil does not include metal webs that are coated for use in flexible packaging.

*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.

*Never-controlled work station* means a work station which is not equipped with provisions by which any emissions, including those in the exhaust from any associated curing oven, may be delivered to a control device.

*New affected source* means an affected source the construction or reconstruction of which commenced after July 18, 2000.

*Overall organic HAP control efficiency* means the total efficiency of a control system, determined either by:

(1) The product of the capture efficiency as determined in accordance with the requirements of § 63.5160(e) and the control device efficiency as determined in accordance with the requirements of § 63.5160(a)(1)(i) and (ii) or § 63.5160(d); or

(2) A liquid-liquid material balance in accordance with the requirements of § 63.5170(e)(1).

*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 a 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 equipment* means any equipment for which the primary purpose is to conduct research and development into new processes and products, where such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

*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 40 CFR part 51, appendix M.

*Work station* means a unit on a coil coating line where coating material is deposited onto the metal coil substrate.

## Emission Standards and Compliance Dates

### § 63.5120 What emission standards must I meet?

(a) Each coil coating affected source must limit organic HAP emissions to the level specified in paragraph (a)(1), (2), or (3) of this section:

(1) No more than 2 percent of the organic HAP applied for each month during each 12-month compliance period (98 percent reduction); or

(2) No more than 0.046 kilogram (kg) of organic HAP per liter of solids applied during each 12-month compliance period; or

(3) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) on a dry basis is achieved and the efficiency of the capture system is 100 percent.

(b) You must demonstrate compliance with one of these standards by following the applicable procedures in § 63.5170.

### § 63.5121 What operating limits must I meet?

(a) Except as provided in paragraph (b) of this section, for any coil coating line for which you use an add-on control device, unless you use a solvent recovery system and conduct a liquid-liquid material balance according to § 63.5170(e)(1), you must meet the applicable operating limits specified in Table 1 to this subpart. You must establish the operating limits during the

performance test according to the requirements in § 63.5160(d)(3). You must meet the operating limits at all times after you establish them.

(b) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under § 63.8(f).

**§ 63.5130 When must I comply?**

(a) For an existing affected source, the compliance date is 3 years after June 10, 2002.

(b) If you own or operate a new affected source subject to the provisions of this subpart, you must comply immediately upon start-up of the affected source, or by June 10, 2002, whichever is later.

(c) Affected sources which have undergone reconstruction are subject to the requirements for new affected sources.

(d) The initial compliance period begins on the applicable compliance date specified in paragraph (a) or (b) of this section and ends on the last day of the 12th month following the compliance date. If the compliance date falls on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months.

(e) For the purpose of demonstrating continuous compliance, a compliance period consists of 12 months. Each month after the end of the initial compliance period described in paragraph (d) of this section is the end of a compliance period consisting of that month and the preceding 11 months.

**General Requirements for Compliance with the Emission Standards and for Monitoring and Performance Tests**

**§ 63.5140 What general requirements must I meet to comply with the standards?**

(a) You must be in compliance with the standards in this subpart at all times, except during periods of start-up, shutdown, and malfunction of any capture system and control device used to comply with this subpart. If you are complying with the emission standards of this subpart without the use of a capture system and control device, you must be in compliance with the standards at all times, including periods of start-up, shutdown, and malfunction.

(b) Table 2 of this subpart provides cross references to subpart A of this part, indicating the applicability of the General Provisions requirements to this subpart.

**§ 63.5150 If I use a control device to comply with the emission standards, what monitoring must I do?**

TABLE 1 TO § 63.5150.—CONTROL DEVICE MONITORING REQUIREMENTS INDEX

If you operate a coil coating line and have the following:	Then you must:
1. Control device .....	Monitor control device operating parameters (§ 63.5150(a)(3)).
2. Capture system .....	Monitor capture system operating parameters (§ 63.5150(a)(4)).
3. Intermittently controllable work station .....	Monitor parameters related to possible exhaust flow through any bypass to a control device (§ 63.5150(a)(1)).
4. Continuous emission monitors .....	Operate continuous emission monitors and perform a quarterly audit (§ 63.5150(a)(2)).

(a) To demonstrate continuing compliance with the standards, you must monitor and inspect each capture system and each control device required to comply with § 63.5120 following the date on which the initial performance test of the capture system and control device is completed. You must install and operate the monitoring equipment as specified in paragraphs (a)(1) through (4) of this section.

(1) *Bypass monitoring.* If you operate coil coating lines with intermittently-controllable work stations, you must follow at least one of the procedures in paragraphs (a)(1)(i) through (iv) of this section for each curing oven associated with these work stations to monitor for potential bypass of the control device:

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the curing oven is directed to the control device or is diverted from the control device. The time and flow control position must be recorded at least once per hour, 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 exhaust stream away from the 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 when the control device is in operation; a visual inspection of the seal or closure mechanism will be performed at least once every month to ensure that the valve or damper is maintained in the closed position, and the exhaust stream is not diverted through the bypass line.

(iii) *Valve closure continuous monitoring.* Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position when the control device is in operation. The monitoring system must be inspected 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 coil coating line is stopped when flow is diverted away from the control

device to any bypass line when the control device is in operation. The automatic shutdown system must be inspected at least once every month to verify that it will detect diversions of flow and shut down operations.

(2) *Continuous emission monitoring system (CEMS).* If you are demonstrating continuous compliance with the standards in § 63.5120(a)(1) or (2) through continuous emission monitoring of a control device, you must install, calibrate, operate, and maintain continuous emission monitors to measure the total organic volatile matter concentration at both the control device inlet and outlet, and you must continuously monitor flow rate. If you are demonstrating continuous compliance with the outlet organic HAP concentration limit in § 63.5120(a)(3), you must install, calibrate, operate, and maintain a continuous emission monitor to measure the total organic volatile matter concentration at the control device outlet.

(i) All CEMS must comply with performance specification 8 or 9 of 40 CFR part 60, appendix B, as appropriate for the detection principle you choose.

The requirements of 40 CFR part 60, procedure 1, appendix F must also be followed. In conducting the quarterly audits of the monitors as required by procedure 1, appendix F, you must use compounds representative of the gaseous emission stream being controlled.

(ii) As specified in § 63.8(c)(4)(ii), each CEMS and each flow rate monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Information which must be determined for recordkeeping purposes, as required by § 63.5190(a)(1)(i) includes:

(A) The hourly average of all recorded readings;

(B) The daily average of all recorded readings for each operating day; and

(C) The monthly average for each month during the semiannual reporting period.

(3) *Temperature monitoring of oxidizers.* If you are complying with the requirements of the standards in § 63.5120 through the use of an oxidizer and demonstrating continuous compliance through monitoring of an oxidizer operating parameter, you must comply with paragraphs (a)(3)(i) through (iii) of this section.

(i) Install, calibrate, maintain, and operate temperature monitoring equipment according to manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months; or the chart recorder, data logger, or temperature indicator

must be replaced. You must replace the equipment either if you choose not to perform the calibration, or if the equipment cannot be calibrated properly. Each temperature monitoring device must be equipped with a continuous recorder. The device must have an accuracy of ±1 percent of the temperature being monitored in degrees Celsius, or ±1° Celsius, whichever is greater.

(ii) For an oxidizer other than a catalytic oxidizer, to demonstrate continuous compliance with the operating limit established according to § 63.5160(d)(3)(i), you must install the thermocouple or temperature sensor in the combustion chamber at a location in the combustion zone.

(iii) For a catalytic oxidizer, if you are demonstrating continuous compliance with the operating limit established according to § 63.5160(d)(3)(ii)(A) and (B), then you must install the thermocouples or temperature sensors in the vent stream at the nearest feasible point to the inlet and outlet of the catalyst bed. Calculate the temperature difference across the catalyst. If you are demonstrating continuous compliance with the operating limit established according to § 63.5160(d)(3)(ii)(C) and (D), then you must install the thermocouple or temperature sensor in the vent stream at the nearest feasible point to the inlet of the catalyst bed.

(4) *Capture system monitoring.* If you are complying with the requirements of the standards in § 63.5120 through the use of a capture system and control

device, you must develop a capture system monitoring plan containing the information specified in paragraphs (a)(4)(i) and (ii) of this section. You must monitor the capture system in accordance with paragraph (a)(4)(iii) of this section. You must make the monitoring plan available for inspection by the permitting authority upon request.

(i) The monitoring plan must identify the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained, explain why this parameter is appropriate for demonstrating ongoing compliance, and identify the specific monitoring procedures.

(ii) The plan also must specify operating limits at the capture system operating parameter value, or range of values, that demonstrates compliance with the standards in § 63.5120. The operating limits must represent the conditions indicative of proper operation and maintenance of the capture system.

(iii) You must conduct monitoring in accordance with the plan.

(b) Any deviation from the required operating parameters which are monitored in accordance with paragraphs (a)(3) and (4) of this section, unless otherwise excused, will be considered a deviation from the operating limit.

**§ 63.5160 What performance tests must I complete?**

TABLE 1 TO § 63.5160.—REQUIRED PERFORMANCE TESTING SUMMARY

If you control HAP on your coil coating line by:	You must:
1. Limiting HAP or Volatile matter content of coatings .....	Determine the HAP or volatile matter and solids content of coating materials according to the procedures in § 63.5160(b) and (c).
2. Using a capture system and add-on control device .....	Conduct a performance test for each capture and control system to determine: (1) the destruction or removal efficiency of each control device according to § 63.5160(d), and (2) the capture efficiency of each capture system according to § 63.5160(e).

(a) If you use a control device to comply with the requirements of § 63.5120, you are not required to conduct a performance test to demonstrate compliance if one or more of the criteria in paragraphs (a)(1) through (3) of this section are met:

(1) The control device is equipped with continuous emission monitors for determining total organic volatile matter concentration, and capture efficiency has been determined in accordance with the requirements of this subpart; and the continuous emission monitors are used to demonstrate continuous compliance in accordance with § 63.5150(a)(2); or

(2) You have received a waiver of performance testing under § 63.7(h); or

(3) The control device is a solvent recovery system and you choose to comply by means of a monthly liquid-liquid material balance.

(b) *Organic HAP content.* You must determine the organic HAP weight fraction of each coating material applied by following one of the procedures in paragraphs (b)(1) through (4) of this section:

(1) *Method 311.* You may test the material in accordance with Method 311 of appendix A of this part. The Method 311 determination may be performed by

the manufacturer of the material and the results provided to you. The organic HAP content must be calculated according to the criteria and procedures in paragraphs (b)(1)(i) through (iii) of this section.

(i) Count only those organic HAP that are measured to be present at greater than or equal to 0.1 weight percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 weight percent for other organic HAP compounds.



(ii) Express the weight fraction of each organic HAP you count according to paragraph (b)(1)(i) of this section as a value truncated to four places after the decimal point (for example, 0.3791).

(iii) Calculate the total weight fraction of organic HAP in the tested material by summing the counted individual organic HAP weight fractions and truncating the result to three places after the decimal point (for example, 0.763).

(2) *Method 24.* For coatings, you may determine the total volatile matter content as weight fraction of nonaqueous volatile matter and use it as a substitute for organic HAP, using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to you.

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

(4) *Formulation data.* You may use formulation data provided that the information represents each organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used, weighted by the mass fraction of each raw material used in the material. Formulation data may be provided to you by the manufacturer of the coating material. In the event of any inconsistency between test data obtained with the test methods specified in paragraphs (b)(1) through (3) of this section and formulation data, the test data will govern.

(c) *Solids content.* You must determine the solids content of each coating material applied. You may determine the volume solids content using ASTM D2697-86 (Reapproved 1998) or ASTM D6093-97 (incorporated by reference, see § 63.14), or an EPA approved alternative method. The ASTM D2697-86 (Reapproved 1998) or ASTM D6093-97 determination may be performed by the manufacturer of the material and the results provided to you. Alternatively, you may rely on formulation data provided by material providers to determine the volume solids.

(d) *Control device destruction or removal efficiency.* If you are using an add-on control device, such as an oxidizer, to comply with the standard in § 63.5120, you must conduct a performance test to establish the destruction or removal efficiency of the

control device or the outlet HAP concentration achieved by the oxidizer, according to the methods and procedures in paragraphs (d)(1) and (2) of this section. During the performance test, you must establish the operating limits required by § 63.5121 according to paragraph (d)(3) of this section.

(1) An initial performance test to establish the destruction or removal efficiency of the control device must be conducted such that control device inlet and outlet testing is conducted simultaneously. To establish the outlet organic HAP concentration achieved by the oxidizer, only oxidizer outlet testing must be conducted. The data must be reduced in accordance with the test methods and procedures in paragraphs (d)(1)(i) through (ix).

(i) Method 1 or 1A of 40 CFR part 60, appendix A, is used for sample and velocity traverses to determine sampling locations.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, is used to determine gas volumetric flow rate.

(iii) Method 3, 3A, or 3B of 40 CFR part 60, appendix A, used 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, ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses" (incorporated by reference, see § 63.14).

(iv) Method 4 of 40 CFR part 60, appendix A, is used to determine stack gas moisture.

(v) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run, as specified in paragraph (d)(1)(vii) of this section.

(vi) Method 25 or 25A of 40 CFR part 60, appendix A, is used to determine total gaseous non-methane organic matter concentration. Use the same test method for both the inlet and outlet measurements, which must be conducted simultaneously. You must submit notification of the intended test method to the Administrator for approval along with notification of the performance test required under § 63.7 (b). You must use Method 25A if any of the conditions described in paragraphs (d)(1)(vi)(A) through (D) of this section apply to the control device.

(A) The control device is not an oxidizer.

(B) The control device is an oxidizer, but an exhaust gas volatile organic matter concentration of 50 ppmv or less is required to comply with the standards in § 63.5120; or

(C) The control device is an oxidizer, but the volatile organic matter concentration at the inlet to the control system and the required level of control are such that they result in exhaust gas volatile organic matter concentrations of 50 ppmv or less; or

(D) The control device is an oxidizer, but because of the high efficiency of the control device, the anticipated volatile organic matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.

(vii) Each performance test must consist of three separate runs, except as provided by § 63.7(e)(3); each run must be conducted for at least 1 hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining volatile organic matter concentrations and mass flow rates, the average of the results of all runs will apply. If you are demonstrating initial compliance with the outlet organic HAP concentration limit in § 63.5120(a)(3), only the average outlet volatile organic matter concentration must be determined.

(viii) If you are determining the control device destruction or removal efficiency, for each run, determine the volatile organic matter mass flow rates using Equation 1 of this section:

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

Where:

$M_f$ =total organic volatile matter mass flow rate, kg/per hour (h).

$C_c$ =concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmv, dry basis.

$Q_{sd}$ =volumetric flow rate of gases entering or exiting the control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters (dscm)/h.

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

(ix) For each run, determine the control device destruction or removal efficiency, DRE, using Equation 2 of this section:

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

Where:

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

$M_{fi}$ =organic volatile matter mass flow rate at the inlet to the control device, kg/h.

$M_{fo}$ =organic volatile matter mass flow rate at the outlet of the control device, kg/h.

(x) The control device destruction or removal efficiency is determined as the



average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

(2) You must record such process information as may be necessary to determine the conditions in existence at the time of the performance test.

Operations during periods of start-up, shutdown, and malfunction will not constitute representative conditions for the purpose of a performance test.

(3) Operating limits. If you are using a capture system and add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance to comply with the requirements in § 63.5120, you must establish the applicable operating limits required by § 63.5121. These operating limits apply to each capture system and to each add-on emission control device that is not monitored by CEMS, and you must establish the operating limits during the performance test required by paragraph (d) of this section according to the requirements in paragraphs (d)(3)(i) through (iii) of this section.

(i) *Thermal oxidizer.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (d)(3)(i)(A) and (B) of this section.

(A) 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.

(B) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(ii) *Catalytic oxidizer.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (d)(3)(ii)(A) and (B) or paragraphs (d)(3)(ii)(C) and (D) of this section.

(A) 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.

(B) 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.

(C) 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 (d)(3)(ii)(D) 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.

(D) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (d)(3)(ii)(C) of this section. The plan must address, at a minimum, the elements specified in paragraphs (d)(3)(ii)(D)(1) (3) of this section.

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

(2) Monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems and,

(3) 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 § 63.5160.

(iii) *Other types of control devices.* If you use a control device other than an oxidizer or a solvent recovery system for which you choose to comply by means of a monthly liquid-liquid material balance, 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).

(e) *Capture efficiency.* If you are required to determine capture efficiency to meet the requirements of § 63.5170(e)(2), (f)(1) through (2), (h)(2) through (4), or (i)(2) through (3), you

must determine capture efficiency using the procedures in paragraph (e)(1), (2), or (3) of this section, as applicable.

(1) For an enclosure that meets the criteria for a PTE, you may assume it achieves 100 percent capture efficiency. You must confirm that your capture system is a PTE by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR part 51, appendix M (or an EPA approved alternative method), and that all exhaust gases from the enclosure are delivered to a control device.

(2) You may determine capture efficiency, CE, according to the protocols for testing with temporary total enclosures that are specified in Method 204A through F of 40 CFR part 51, appendix M. You may exclude never-controlled work stations from such capture efficiency determinations.

(3) As an alternative to the procedures specified in paragraphs (e)(1) and (2) of this section, if you are required to conduct a capture efficiency test, you may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A to subpart KK of this part. You may exclude never-controlled work stations from such capture efficiency determinations.

#### Requirements for Showing Compliance

##### § 63.5170 How do I demonstrate compliance with the standards?

You must include all coating materials (as defined in § 63.5110) used in the affected source when determining compliance with the applicable emission limit in § 63.5120. To make this determination, you must use at least one of the four compliance options listed in Table 1 of this section. You may apply any of the compliance options to an individual coil coating line, or to multiple lines as a group, or to the entire affected source. You may use different compliance options for different coil coating lines, or at different times on the same line. However, you may not use different compliance options at the same time on the same coil coating line. If you switch between compliance options for any coil coating line or group of lines, you must document this switch as required by § 63.5190(a), and you must report it in the next semiannual compliance report required in § 63.5180.

TABLE 1 TO § 63.5170.—COMPLIANCE DEMONSTRATION REQUIREMENTS INDEX

If you choose to demonstrate compliance by:	Then you must demonstrate that:
1. Use of “as purchased” compliant coatings ....	a. Each coating material used during the 12-month compliance period does not exceed 0.046 kg HAP per liter solids, as purchased. Paragraph (a) of this section.
2. Use of “as applied” compliant coatings .....	a. Each coating material used does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly. Paragraphs (b)(1) of this section; or
	b. Average of all coating materials used does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly. Paragraph (b)(2) of this section.
3. Use of a capture system and control device ..	Overall organic HAP control efficiency is at least 98 percent on a monthly basis for individual or groups of coil coating lines; or overall organic HAP control efficiency is at least 98 percent during initial performance test and operating limits are achieved continuously for individual coil coating lines; or oxidizer outlet HAP concentration is no greater than 20 ppmv and there is 100 percent capture efficiency during initial performance test and operating limits are achieved continuously for individual coil coating lines. Paragraph (c) of this section.
	Average equivalent emission rate does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly. Paragraph (d) of this section.
4. Use of a combination of compliant coatings and control devices and maintaining an acceptable equivalent emission rate.	

(a) *As-purchased compliant coatings.*  
If you elect to use coatings that individually meet the organic HAP emission limit in § 63.5120(a)(2) as-purchased, to which you will not add HAP during distribution or application, you must demonstrate that each coating material applied during the 12-month compliance period contains no more than 0.046 kg HAP per liter of solids on an as-purchased basis.

(1) Determine the organic HAP content for each coating material in accordance with § 63.5160(b) and the volume solids content in accordance with § 63.5160(c).

(2) Combine these results using Equation 1 of this section and compare the result to the organic HAP emission

limit in § 63.5120(a)(2) to demonstrate that each coating material contains no more organic HAP than the limit.

$$H_{siap} = \frac{C_{hi} D_i}{V_{si}} \quad (\text{Eq. 1})$$

Where:

$H_{siap}$  = as-purchased, organic HAP to solids ratio of coating material, i, kg organic HAP/liter solids applied.

$C_{hi}$  = organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg.

$D_i$  = density of coating material, i, kg/l.

$V_{si}$  = volume fraction of solids in coating, i, l/l.

(b) *As-applied compliant coatings.* If you choose to use “as-applied” compliant coatings, you must

demonstrate that the average of each coating material applied during the 12-month compliance period contains no more than 0.046 kg of organic HAP per liter of solids applied in accordance with (b)(1) of this section, or demonstrate that the average of all coating materials applied during the 12-month compliance period contain no more than 0.046 kg of organic HAP per liter of solids applied in accordance with paragraph (b)(2) of this section.

(1) To demonstrate that the average organic HAP content on the basis of solids applied for each coating material applied,  $H_{si\ yr}$ , is less than 0.046 kg HAP per liter solids applied for the 12-month compliance period, use Equation 2 of this section:

$$H_{si\ yr} = \frac{\sum_{y=1}^{12} \left[ V_i D_i C_{ahi} + \sum_{i=1}^q V_j D_j C_{hij} \right]}{\sum_{y=1}^{12} V_i V_{si}} \quad (\text{Eq. 2})$$

Where:

$H_{si\ yr}$  = average for the 12-month compliance period, as-applied, organic HAP to solids ratio of material, i, kg organic HAP/liter solids applied.

$V_i$  = volume of coating material, i, l.

$D_i$  = density of coating material, i, kg/l.

$C_{ahi}$  = monthly average, as-applied, organic HAP content of solids-containing coating material, i, expressed as a weight fraction, kilogram (kg)/kg.

$V_j$  = volume of solvent, j, l.

$D_j$  = density of solvent, j, kg/l.

$C_{hij}$  = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.

$V_{si}$  = volume fraction of solids in coating, i, l/l.

y = identifier for months.

q = number of different solvents, thinners, reducers, diluents, or other non-solids-

containing coating materials applied in a month.

(2) To demonstrate that the average organic HAP content on the basis of solids applied,  $H_{S\ yr}$ , of all coating materials applied is less than 0.046 kg HAP per liter solids applied for the 12-month compliance period, use Equation 3 of this section:

$$H_{S\ yr} = \frac{\sum_{y=1}^{12} \left[ \sum_{i=1}^p V_i D_i C_{ahi} + \sum_{j=1}^q V_j D_j C_{hij} \right]}{\sum_{y=1}^{12} \left[ \sum_{i=1}^p V_i V_{si} \right]} \quad (\text{Eq. 3})$$

Where:

$H_{S\text{ yr}}$  = average for the 12-month compliance period, as-applied, organic HAP to solids ratio of all materials applied, kg organic HAP/liter solids applied.

$V_i$  = volume of coating material, i, l.

$D_i$  = density of coating material, i, kg/l.

$C_{\text{ahi}}$  = monthly average, as-applied, organic HAP content of solids-containing coating material, i, expressed as a weight fraction, kilogram (kg)/kg.

$V_j$  = volume of solvent, j, l.

$D_j$  = density of solvent, j, kg/l.

$C_{\text{hij}}$  = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.

$V_{\text{si}}$  = volume fraction of solids in coating, i, l/l.

$p$  = number of different coating materials applied in a month.

$q$  = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

$y$  = identifier for months.

(c) *Capture and control to reduce emissions to no more than the allowable limit.* If you use one or more capture systems and one or more control devices and demonstrate an average overall organic HAP control efficiency of at least 98 percent for each month to comply with § 63.5120(a)(1); or operate a capture system and oxidizer so that the capture efficiency is 100 percent and the oxidizer outlet HAP concentration is no greater than 20 ppmv on a dry basis to comply with § 63.5120(a)(3), you must follow one of the procedures in paragraphs (c)(1) through (4) of this section. Alternatively, you may demonstrate compliance for an individual coil coating line by operating its capture system and control device and continuous parameter monitoring system according to the procedures in paragraph (i) of this section.

(1) If the affected source uses one compliance procedure to limit organic HAP emissions to the level specified in § 63.5120(a)(1) or (2) and has only always-controlled work stations, then you must demonstrate compliance with the provisions of paragraph (e) of this section when emissions from the affected source are controlled by one or more solvent recovery devices.

(2) If the affected source uses one compliance procedure to limit organic HAP emissions to the level specified in § 63.5120(a)(1) or (2) and has only always-controlled work stations, then you must demonstrate compliance with the provisions of paragraph (f) of this section when emissions are controlled by one or more oxidizers.

(3) If the affected source operates both solvent recovery and oxidizer control devices, one or more never-controlled work stations, or one or more intermittently-controllable work

stations, or uses more than one compliance procedure, then you must demonstrate compliance with the provisions of paragraph (g) of this section.

(4) The method of limiting organic HAP emissions to the level specified in § 63.5120(a)(3) is the installation and operation of a PTE around each work station and associated curing oven in the coating line and the ventilation of all organic HAP emissions from each PTE to an oxidizer with an outlet organic HAP concentration of no greater than 20 ppmv on a dry basis. An enclosure that meets the requirements in § 63.5160(e)(1) is considered a PTE. Initial compliance of the oxidizer with the outlet organic HAP concentration limit is demonstrated either through continuous emission monitoring according to paragraph (c)(4)(ii) of this section or through performance tests using the procedure in § 63.5160(d). If this method is selected, you must meet the requirements of paragraph (c)(4)(i) of this section to demonstrate capturing achievement of 100 percent capture of organic HAP emissions and either paragraph (c)(4)(ii) or paragraph (c)(4)(iii) of this section, respectively, to demonstrate continuous compliance with the oxidizer outlet organic HAP concentration limit through continuous emission monitoring or continuous operating parameter monitoring:

(i) Whenever a work station is operated, continuously monitor the capture system operating parameter established in accordance with § 63.5150(a)(4).

(ii) To demonstrate that the value of the exhaust gas organic HAP concentration at the outlet of the oxidizer is no greater than 20 ppmv, on a dry basis, install, calibrate, operate, and maintain CEMS according to the requirements of § 63.5150(a)(2).

(iii) To demonstrate continuous compliance with operating limits established in accordance with § 63.5150(a)(3), whenever a work station is operated, continuously monitor the applicable oxidizer operating parameter.

(d) *Capture and control to achieve the emission rate limit.* If you use one or more capture systems and one or more control devices and limit the organic HAP emission rate to no more than 0.046 kg organic HAP emitted per liter of solids applied on a 12-month average as-applied basis, then you must follow one of the procedures in paragraphs (d)(1) through (3) of this section.

(1) If you use one or more solvent recovery devices, you must demonstrate compliance with the provisions in paragraph (e) of this section.

(2) If you use one or more oxidizers, you must demonstrate compliance with the provisions in paragraph (f) of this section.

(3) If you use both solvent recovery devices and oxidizers, or operate one or more never-controlled work stations or one or more intermittently controllable work stations, you must demonstrate compliance with the provisions in paragraph (g) of this section.

(e) *Use of solvent recovery to demonstrate compliance.* If you use one or more solvent recovery devices to control emissions from always-controlled work stations, you must show compliance by following the procedures in either paragraph (e)(1) or (2) of this section:

(1) *Liquid-liquid material balance.* Perform a liquid-liquid material balance for each month as specified in paragraphs (e)(1)(i) through (vi) of this section and use Equations 4 through 6 of this section to convert the data to units of this standard. All determinations of quantity of coating and composition of coating must be made at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or appropriate adjustments must be made to account for any ingredients added after the amount of coating has been determined.

(i) Measure the mass of each coating material applied on the work station or group of work stations controlled by one or more solvent recovery devices during the month.

(ii) If demonstrating compliance with the organic HAP emission rate based on solids applied, determine the organic HAP content of each coating material applied during the month following the procedure in § 63.5160(b).

(iii) Determine the volatile matter content of each coating material applied during the month following the procedure in § 63.5160(c).

(iv) If demonstrating compliance with the organic HAP emission rate based on solids applied, determine the solids content of each coating material applied during the month following the procedure in § 63.5160(c).

(v) For each solvent recovery device used to comply with § 63.5120(a), install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device must be initially certified by the manufacturer to be accurate to within  $\pm 2.0$  percent.

(vi) For each solvent recovery device used to comply with § 63.5120(a),

measure the amount of volatile matter recovered for the month.

(vii) *Recovery efficiency,  $R_v$* . Calculate the volatile organic matter collection and recovery efficiency,  $R_v$ , using Equation 4 of this section:

$$R_v = 100 \frac{\sum_{k=1}^s M_{kvr}}{\sum_{i=1}^p M_i C_{vi} + \sum_{j=1}^q M_j} \quad (\text{Eq. 4})$$

Where:

$R_v$  = organic volatile matter collection and recovery efficiency, percent.

$M_{kvr}$  = mass of volatile matter recovered in a month by solvent recovery device, k, kg.

$M_i$  = mass of coating material, i, applied in a month, kg.

$C_{vi}$  = volatile matter content of coating material, i, expressed as a weight fraction, kg/kg.

$M_j$  = mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material (excluding  $H_2O$ ), j, applied in a month, kg.

p = number of different coating materials applied in a month.

q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

s = number of solvent recovery devices used to comply with the standard of § 63.5120 of this part, in the facility.

(viii) *Organic HAP emitted,  $H_e$* .

Calculate the mass of organic HAP emitted during the month,  $H_e$ , using Equation 5 of this section:

$$H_e = \left[ 1 - \frac{R_v}{100} \right] \left[ \sum_{i=1}^p \left( C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} \right) \right] \quad (\text{Eq. 5})$$

Where:

$H_e$  = total monthly organic HAP emitted, kg.

$R_v$  = organic volatile matter collection and recovery efficiency, percent.

$C_{hi}$  = organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg.

$M_i$  = mass of coating material, i, applied in a month, kg.

$C_{hij}$  = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.

$M_{ij}$  = mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material, j, added to solids-containing coating material, i, in a month, kg.

p = number of different coating materials applied in a month.

q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

(ix) *Organic HAP emission rate based on solids applied for the 12-month compliance period,  $L_{\text{ANNUAL}}$* . Calculate the organic HAP emission rate based on solids applied for the 12-month compliance period,  $L_{\text{ANNUAL}}$ , using Equation 6 of this section:

$$L_{\text{ANNUAL}} = \frac{\sum_{y=1}^{12} H_e}{\sum_{y=1}^{12} \left[ \sum_{i=1}^p C_{si} M_i \right]} \quad (\text{Eq. 6})$$

Where:

$L_{\text{ANNUAL}}$  = mass organic HAP emitted per volume of solids applied for the 12-month compliance period, kg/liter.

$H_e$  = total monthly organic HAP emitted, kg.

$C_{si}$  = solids content of coating material, i, expressed as liter of solids/kg of material.

$M_i$  = mass of coating material, i, applied in a month, kg.

y = identifier for months.

p = number of different coating materials applied in a month.

(x) *Compare actual performance to performance required by compliance option*. The affected source is in compliance with § 63.5120(a) if it meets the requirement in either paragraph (e)(1)(x)(A) or (B) of this section:

(A) The average volatile organic matter collection and recovery efficiency,  $R_v$ , is 98 percent or greater each month of the 12-month compliance period; or

(B) The organic HAP emission rate based on solids applied for the 12-month compliance period,  $L_{\text{ANNUAL}}$ , is 0.046 kg organic HAP per liter solids applied or less.

(2) *Continuous emission monitoring of control device performance*. Use continuous emission monitors to demonstrate recovery efficiency, conduct an initial performance test of capture efficiency and volumetric flow rate, and continuously monitor a site

specific operating parameter to ensure that capture efficiency and volumetric flow rate are maintained following the procedures in paragraphs (e)(2)(i) through (xi) of this section:

(i) *Control device destruction or removal efficiency, DRE*. For each control device used to comply with § 63.5120(a), continuously monitor the gas stream entering and exiting the control device to determine the total volatile organic matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter and the volumetric flow rate in cubic meters per second, such that the total volatile organic matter mass flow rate in grams per second can be calculated using Equation 1 of § 63.5160, and the percent destruction or removal efficiency, DRE, of the control device can be calculated for each month using Equation 2 of § 63.5160.

(ii) Determine the percent capture efficiency, CE, for each work station in accordance with § 63.5160(e).

(iii) *Capture efficiency monitoring*. Whenever a work station is operated, continuously monitor the operating parameter established in accordance with § 63.5150(a)(4).

(iv) *Control efficiency, R*. Calculate the overall organic HAP control efficiency, R, achieved for each month using Equation 7 of this section:

$$R = 100 \frac{\sum_{A=1}^w \left[ (\text{DRE}_K \text{CE}_A) \left( \sum_{i=1}^p M_{Ai} C_{vi} + \sum_{j=1}^q M_{Aj} \right) \right]}{\sum_{i=1}^p M_i C_{vi} + \sum_{j=1}^q M_j} \quad (\text{Eq. 7})$$

Where:

R=overall organic HAP control efficiency, percent.

DRE<sub>k</sub>=organic volatile matter destruction or removal efficiency of control device, k, percent.

CE<sub>A</sub>=organic volatile matter capture efficiency of the capture system for work station, A, percent.

M<sub>Ai</sub>=mass of coating material, i, applied on work station, A, in a month, kg.

C<sub>vi</sub>=volatile matter content of coating material, i, expressed as a weight fraction, kg/kg.

M<sub>Aj</sub>=mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material (including H<sub>2</sub>O), j, applied on work station, A, in a month, kg.

M<sub>i</sub>=mass of coating material, i, applied in a month, kg.

M<sub>j</sub>=mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material (excluding H<sub>2</sub>O), j, applied in a month, kg.

w=number of always-controlled work stations in the facility.

p=number of different coating materials applied in a month.

q=number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

(v) If demonstrating compliance with the organic HAP emission rate based on solids applied, measure the mass of each coating material applied on each work station during the month.

(vi) If demonstrating compliance with the organic HAP emission rate based on solids applied, determine the organic HAP content of each coating material applied during the month in accordance with § 63.5160(b).

(vii) If demonstrating compliance with the organic HAP emission rate based on solids applied, determine the solids content of each coating material applied during the month in accordance with § 63.5160(c).

(viii) If demonstrating compliance with the organic HAP emission rate based on solids applied, calculate the organic HAP emitted during the month, H<sub>e</sub>, for each month using Equation 8 of this section:

$$H_e = \sum_{A=1}^w \left[ 1 - (DRE_K CE_A) \left( \sum_{i=1}^p C_{hi} M_{Ai} + \sum_{j=1}^q C_{hij} M_{Aij} \right) \right] \quad (\text{Eq. 8})$$

Where:

H<sub>e</sub>=total monthly organic HAP emitted, kg.

DRE<sub>k</sub>=organic volatile matter destruction or removal efficiency of control device, k, percent.

CE<sub>A</sub>=organic volatile matter capture efficiency of the capture system for work station, A, percent.

C<sub>hi</sub>=organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg.

M<sub>Ai</sub>=mass of coating material, i, applied on work station, A, in a month, kg.

C<sub>hij</sub>=organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.

M<sub>Aij</sub>=mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material, j, added to solids-containing coating material, i, applied on work station, A, in a month, kg.

w=number of always-controlled work stations in the facility.

p=number of different coating materials applied in a month.

q=number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

(ix) *Organic HAP emission rate based on solids applied for the 12-month compliance period, L<sub>ANNUAL</sub>.* Calculate the organic HAP emission rate based on solids applied for the 12-month compliance period, L<sub>ANNUAL</sub>, using Equation 6 of this section.

(x) *Compare actual performance to performance required by compliance option.* The affected source is in compliance with § 63.5120(a) if each capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.5150 for each 3-hour period; and

(A) The overall organic HAP control efficiency, R, is 98 percent or greater for each; or

(B) The organic HAP emission rate based on solids applied for the 12-month compliance period, L<sub>ANNUAL</sub>, is 0.046 kg organic HAP per liter solids applied or less.

(f) *Use of oxidation to demonstrate compliance.* If you use one or more oxidizers to control emissions from always controlled work stations, you must follow the procedures in either paragraph (f)(1) or (2) of this section:

(1) *Continuous monitoring of capture system and control device operating parameters.* Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (f)(1)(i) through (xi) of this section:

(i) For each oxidizer used to comply with § 63.5120(a), determine the oxidizer destruction or removal efficiency, DRE, using the procedure in § 63.5160(d).

(ii) Whenever a work station is operated, continuously monitor the operating parameter established in accordance with § 63.5150(a)(3).

(iii) Determine the capture system capture efficiency, CE, for each work station in accordance with § 63.5160(e).

(iv) Whenever a work station is operated, continuously monitor the operating parameter established in accordance with § 63.5150(a)(4).

(v) Calculate the overall organic HAP control efficiency, R, achieved using Equation 7 of this section.

(vi) If demonstrating compliance with the organic HAP emission rate based on solids applied, measure the mass of each coating material applied on each work station during the month.

(vii) If demonstrating compliance with the organic HAP emission rate based on solids applied, determine the organic HAP content of each coating material applied during the month following the procedure in § 63.5160(b).

(viii) If demonstrating compliance with the organic HAP emission rate based on solids applied, determine the solids content of each coating material applied during the month following the procedure in § 63.5160(c).

(ix) Calculate the organic HAP emitted during the month, H<sub>e</sub>, for each month:

(A) For each work station and its associated oxidizer, use Equation 8 of this section.

(B) For periods when the oxidizer has not operated within its established operating limit, the control device efficiency is determined to be zero.

(x) *Organic HAP emission rate based on solids applied for the 12-month compliance period, L<sub>ANNUAL</sub>.* If demonstrating compliance with the organic HAP emission rate based on solids applied for the 12-month compliance period, calculate the organic HAP emission rate based on solids applied, L<sub>ANNUAL</sub>, for the 12-month compliance period using Equation 6 of this section.

(xi) *Compare actual performance to performance required by compliance*

option. The affected source is in compliance with § 63.5120(a) if each oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in § 63.5150(a)(3) for each 3-hour period, and each capture system operating parameter average value is greater than or less than (as appropriate) the operating parameter value established in § 63.5150(a)(4) for each 3-hour period; and the requirement in either paragraph (f)(1)(xi)(A) or (B) of this section is met.

(A) The overall organic HAP control efficiency, R, is 98 percent or greater for each; or

(B) The organic HAP emission rate based on solids applied,  $L_{ANNUAL}$ , is 0.046 kg organic HAP per liter solids applied or less for the 12-month compliance period.

(2) *Continuous emission monitoring of control device performance.* Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to ensure that capture efficiency is maintained. Compliance must be demonstrated in accordance with paragraph (e)(2) of this section.

(g) *Combination of capture and control.* You must demonstrate compliance according to the procedures in paragraphs (g)(1) through (8) of this section if both solvent recovery and oxidizer control devices, one or more never controlled coil coating stations, or one or more intermittently controllable coil coating stations are operated; or more than one compliance procedure is used.

(1) *Solvent recovery system using liquid/liquid material balance compliance demonstration.* For each solvent recovery system used to control one or more work stations for which you choose to comply by means of a liquid-liquid material balance, you must determine the organic HAP emissions each month of the 12-month compliance period for those work stations controlled by that solvent recovery system according to either paragraph (g)(1)(i) or (ii) of this section:

(i) In accordance with paragraphs (e)(1)(i) through (iii) and (e)(1)(v) through (viii) of this section if the work stations controlled by that solvent recovery system are only always-controlled work stations; or

(ii) In accordance with paragraphs (e)(1)(ii) through (iii), (e)(1)(v) through (vi), and (h) of this section if the work stations controlled by that solvent recovery system include one or more

never-controlled or intermittently-controllable work stations.

(2) *Solvent recovery system using performance test and continuous monitoring compliance demonstration.* For each solvent recovery system used to control one or more coil coating stations for which you choose to comply by means of an initial test of capture efficiency, continuous emission monitoring of the control device, and continuous monitoring of a capture system operating parameter, each month of the 12-month compliance period you must meet the requirements of paragraphs (g)(2)(i) and (ii) of this section:

(i) For each capture system delivering emissions to that solvent recovery system, monitor an operating parameter established in § 63.5150(a)(4) to ensure that capture system efficiency is maintained; and

(ii) Determine the organic HAP emissions for those work stations served by each capture system delivering emissions to that solvent recovery system according to either paragraph (g)(2)(ii)(A) or (B) of this section:

(A) In accordance with paragraphs (e)(2)(i) through (iii) and (e)(2)(v) through (viii) of this section if the work stations served by that capture system are only always-controlled coil coating stations; or

(B) In accordance with paragraphs (e)(2)(i) through (iii), (e)(2)(v) through (vii), and (h) of this section if the work stations served by that capture system include one or more never-controlled or intermittently-controllable work stations.

(3) *Oxidizer using performance test and continuous monitoring of operating parameters compliance demonstration.* For each oxidizer used to control emissions from one or more work stations for which you choose to demonstrate compliance through performance tests of capture efficiency, control device efficiency, and continuing compliance through continuous monitoring of capture system and control device operating parameters, each month of the 12-month compliance period you must meet the requirements of paragraphs (g)(3)(i) through (iii) of this section:

(i) Monitor an operating parameter established in § 63.5150(a)(3) to ensure that control device destruction or removal efficiency is maintained; and

(ii) For each capture system delivering emissions to that oxidizer, monitor an operating parameter established in § 63.5150(a)(4) to ensure capture efficiency; and

(iii) Determine the organic HAP emissions for those work stations served by each capture system delivering emissions to that oxidizer according to either paragraph (g)(3)(iii)(A) or (B) of this section:

(A) In accordance with paragraphs (f)(1)(i) through (v) and (ix) of this section if the work stations served by that capture system are only always-controlled work stations; or

(B) In accordance with paragraphs (f)(1)(i) through (v), (ix), and (h) of this section if the work stations served by that capture system include one or more never-controlled or intermittently-controllable work stations.

(4) *Oxidizer using continuous emission monitoring compliance demonstration.* For each oxidizer used to control emissions from one or more work stations for which you choose to demonstrate compliance through an initial capture efficiency test, continuous emission monitoring of the control device, and continuous monitoring of a capture system operating parameter, each month of the 12-month compliance period you must meet the requirements in paragraphs (g)(4)(i) and (ii) of this section:

(i) For each capture system delivering emissions to that oxidizer, monitor an operating parameter established in § 63.5150(a)(4) to ensure capture efficiency; and

(ii) Determine the organic HAP emissions for those work stations served by each capture system delivering emissions to that oxidizer according to either paragraph (g)(4)(ii)(A) or (B) of this section:

(A) In accordance with paragraphs (e)(2)(i) through (iii) and (e)(2)(v) through (viii) of this section if the work stations served by that capture system are only always-controlled work stations; or

(B) In accordance with paragraphs (e)(2)(i) through (iii), (e)(2)(v) through (vii), and (h) of this section if the work stations served by that capture system include one or more never-controlled or intermittently-controllable work stations.

(5) *Uncontrolled work stations.* For uncontrolled work stations, each month of the 12-month compliance period you must determine the organic HAP applied on those work stations using Equation 9 of this section. The organic HAP emitted from an uncontrolled work station is equal to the organic HAP applied on that work station:

$$H_m = \sum_{A=1}^x \left( \sum_{i=1}^p C_{hi} M_{Ai} + \sum_{j=1}^q C_{hij} M_{Aij} \right) \quad (\text{Eq. 9})$$

Where:

$H_m$  = facility total monthly organic HAP applied on uncontrolled coil coating stations, kg.

$C_{hi}$  = organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg.

$M_{Ai}$  = mass of coating material, i, applied on work station, A, in a month, kg.

$C_{hij}$  = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.

$M_{Aij}$  = mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material, j, added to solids-containing coating material, i, applied on work station, A, in a month, kg.

x = number of uncontrolled work stations in the facility.

p = number of different coating materials applied in a month.

q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

(6) If demonstrating compliance with the organic HAP emission rate based on solids applied, each month of the 12-month compliance period you must determine the solids content of each coating material applied during the month following the procedure in § 63.5160(c).

(7) *Organic HAP emitted.* You must determine the organic HAP emissions for the affected source for each 12-month compliance period by summing all monthly organic HAP emissions calculated according to paragraphs (g)(1), (g)(2)(ii), (g)(3)(iii), (g)(4)(ii), and (g)(5) of this section.

(8) *Compare actual performance to performance required by compliance option.* The affected source is in compliance with § 63.5120(a) for the 12-month compliance period if all

operating parameters required to be monitored under paragraphs (g)(2) through (4) of this section were maintained at the values established in § 63.5150; and it meets the requirement in either paragraph (g)(8)(i) or (ii) of this section.

(i) The total mass of organic HAP emitted by the affected source was not more than 0.046 kg HAP per liter of solids applied for the 12-month compliance period; or

(ii) The total mass of organic HAP emitted by the affected source was not more than 2 percent of the total mass of organic HAP applied by the affected source each month. You must determine the total mass of organic HAP applied by the affected source in each month of the 12-month compliance period using Equation 9 of this section.

(h) *Organic HAP emissions from intermittently-controllable or never-controlled coil coating stations.* If you have been expressly referenced to this paragraph by paragraphs (g)(1)(ii), (g)(2)(ii)(B), (g)(3)(iii)(B), or (g)(4)(ii)(B) of this section for calculation procedures to determine organic HAP emissions, you must for your intermittently-controllable or never-controlled work stations meet the requirements of paragraphs (h)(1) through (6) of this section:

(1) Determine the sum of the mass of all solids-containing coating materials which are applied on intermittently-controllable work stations in bypass mode, and the mass of all solids-containing coating materials which are applied on never-controlled coil coating stations during each month of the 12-month compliance period,  $M_{Bi}$ .

(2) Determine the sum of the mass of all solvents, thinners, reducers, diluents, and other nonsolids-containing coating materials which are applied on intermittently-controllable work stations in bypass mode, and the mass of all solvents, thinners, reducers, diluents and other nonsolids-containing coating materials which are applied on never-controlled work stations during each month of the 12-month compliance period,  $M_{Bj}$ .

(3) Determine the sum of the mass of all solids-containing coating materials which are applied on intermittently-controllable work stations in controlled mode, and the mass of all solids-containing coating materials which are applied on always-controlled work stations during each month of the 12-month compliance period,  $M_{Ci}$ .

(4) Determine the sum of the mass of all solvents, thinners, reducers, diluents, and other nonsolids-containing coating materials which are applied on intermittently-controllable work stations in controlled mode, and the mass of all solvents, thinners, reducers, diluents, and other nonsolids-containing coating materials which are applied on always-controlled work stations during each month of the 12-month compliance period,  $M_{Cj}$ .

(5) *Liquid-liquid material balance calculation of HAP emitted.* For each work station or group of work stations for which you use the provisions of paragraph (g)(1)(ii) of this section, you must calculate the organic HAP emitted during the month using Equation 10 of this section:

$$H_e = \left[ \sum_{i=1}^p M_{Ci} C_{hi} + \sum_{j=1}^q M_{Cj} C_{hj} \right] \left[ 1 - \frac{\sum_{k=1}^s M_{kvr}}{\sum_{i=1}^p M_{Ci} C_{vi} + \sum_{j=1}^q M_{Cj}} \right] + \left[ \sum_{i=1}^p M_{Bi} C_{hi} + \sum_{j=1}^q M_{Bj} C_{hj} \right] \quad (\text{Eq. 10})$$

Where:

$H_e$  = total monthly organic HAP emitted, kg.

$M_{Ci}$  = sum of the mass of solids-containing coating material, i, applied on intermittently-controllable work stations operating in controlled mode and the mass of solids-containing coating material, i, applied on always-controlled work stations, in a month, kg.

$C_{hi}$  = organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg.

$M_{Cj}$  = sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material, j, applied on intermittently-controllable work stations operating in controlled mode and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing

coating material, j, applied on always-controlled work stations in a month, kg.

$C_{hj}$  = organic HAP content of solvent, j, expressed as a weight fraction, kg/kg.

$M_{kvr}$  = mass of volatile matter recovered in a month by solvent recovery device, k, kg.

$C_{vi}$  = volatile matter content of coating material, i, expressed as a weight fraction, kg/kg.

$M_{Bi}$  = sum of the mass of solids-containing coating material,  $i$ , applied on intermittently-controllable work stations operating in bypass mode and the mass of solids-containing coating material,  $i$ , applied on never-controlled work stations, in a month, kg.

$M_{Bj}$  = sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material,  $j$ , applied on intermittently-controllable work stations operating in bypass mode and the mass

of solvent, thinner, reducer, diluent, or other non-solids-containing coating material,  $j$ , applied on never-controlled work stations, in a month, kg.

$p$  = number of different coating materials applied in a month.

$q$  = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

$s$  = number of solvent recovery devices used to comply with the standard of § 63.5120 of this subpart, in the facility.

(6) *Control efficiency calculation of HAP emitted.* For each work station or group of work stations for which you use the provisions of paragraphs (g)(2)(ii)(B), (g)(3)(iii)(B), or (g)(4)(ii)(B) of this section, you must calculate the organic HAP emitted during the month,  $H_e$ , using Equation 11 of this section:

$$e = \sum_{A=1}^{w_i} \left[ \left( \sum_{i=1}^p M_{Ci} C_{hi} + \sum_{j=1}^q M_{Cj} C_{hj} \right) (1 - DRE_k CE_A) \right] + \left[ \sum_{i=1}^p M_{Bi} C_{hi} + \sum_{j=1}^q M_{Bj} C_{hj} \right] \quad (\text{Eq. 11})$$

Where:

$H_e$  = total monthly organic HAP emitted, kg.

$M_{Ci}$  = sum of the mass of solids-containing coating material,  $i$ , applied on intermittently-controllable work stations operating in controlled mode and the mass of solids-containing coating material,  $i$ , applied on always-controlled work stations, in a month, kg.

$C_{hi}$  = organic HAP content of coating material,  $i$ , expressed as a weight-fraction, kg/kg.

$M_{Cj}$  = sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material,  $j$ , applied on intermittently-controllable work stations operating in controlled mode and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material,  $j$ , applied on always-controlled work stations in a month, kg.

$C_{hj}$  = organic HAP content of solvent,  $j$ , expressed as a weight fraction, kg/kg.

$DRE_k$  = organic volatile matter destruction or removal efficiency of control device,  $k$ , percent.

$CE_A$  = organic volatile matter capture efficiency of the capture system for work station,  $A$ , percent.

$M_{Bi}$  = sum of the mass of solids-containing coating material,  $i$ , applied on intermittently-controllable work stations operating in bypass mode and the mass of solids-containing coating material,  $i$ , applied on never-controlled work stations, in a month, kg.

$M_{Bj}$  = sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material,  $j$ , applied on intermittently-controllable work stations operating in bypass mode and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material,  $j$ , applied on never-controlled work stations, in a month, kg.

$w_i$  = number of intermittently-controllable work stations in the facility.

$p$  = number of different coating materials applied in a month.

$q$  = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

(i) *Capture and control system compliance demonstration procedures*

using a CPMS for a coil coating line. If you use an add-on control device, to demonstrate initial compliance for each capture system and each control device through performance tests and continuing compliance through continuous monitoring of capture system and control device operating parameters, you must meet the requirements in paragraphs (i)(1) through (3) of this section.

(1) Conduct an initial performance test to determine the control device destruction or removal efficiency, DRE, using the applicable test methods and procedures in § 63.5160(d).

(2) Determine the emission capture efficiency, CE, in accordance with § 63.5160(e).

(3) Whenever a coil coating line is operated, continuously monitor the operating parameters established according to § 63.5150(a)(3) and (4) to ensure capture and control efficiency.

### Reporting and Recordkeeping

#### § 63.5180 What reports must I submit?

(a) Submit the reports specified in paragraphs (b) through (i) of this section to the EPA Regional Office that serves the State or territory in which the affected source is located and to the delegated State agency:

(b) You must submit an initial notification required in § 63.9(b).

(1) Submit an initial notification for an existing source no later than 2 years after June 10, 2002.

(2) Submit an initial notification for a new or reconstructed source as required by § 63.9(b).

(3) For the purpose of this subpart, a title V permit application may be used in lieu of the initial notification required under § 63.9(b), provided the same information is contained in the permit application as required by § 63.9(b), and the State to which the permit application has been submitted has an approved operating permit

program under part 70 of this chapter and has received delegation of authority from the EPA.

(4) Submit a title V permit application used in lieu of the initial notification required under § 63.9(b) by the same due dates as those specified in paragraphs (b)(1) and (2) of this section for the initial notifications.

(c) You must submit a Notification of Performance Test as specified in §§ 63.7 and 63.9(e) if you are complying with the emission standard using a control device. This notification and the site-specific test plan required under § 63.7(c)(2) must identify the operating parameter to be monitored to ensure that the capture efficiency measured during the performance test is maintained. You may consider the operating parameter identified in the site-specific test plan to be approved unless explicitly disapproved, or unless comments received from the Administrator require monitoring of an alternate parameter.

(d) You must submit a Notification of Compliance Status as specified in § 63.9(h). You must submit the Notification of Compliance Status no later than 30 calendar days following the end of the initial 12-month compliance period described in § 63.5130.

(e) You must submit performance test reports as specified in § 63.10(d)(2) if you are using a control device to comply with the emission standards and you have not obtained a waiver from the performance test requirement.

(f) You must submit start-up, shutdown, and malfunction reports as specified in § 63.10(d)(5) if you use a control device to comply with this subpart.

(1) If your actions during a start-up, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not completely consistent with the



procedures specified in the source's start-up, shutdown, and malfunction plan specified in § 63.6(e)(3), you must state such information in the report. The start-up, shutdown, or malfunction report will consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy, that will be submitted to the Administrator.

(2) Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report specified in paragraph (g) of this section.

(g) You must submit semi-annual compliance reports containing the information specified in paragraphs (g)(1) and (2) of this section.

(1) Compliance report dates.

(i) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.5130(a) and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.5130(a).

(ii) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.5130(a).

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

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

(v) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or part 71, and the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (g)(1)(i) through (iv) of this section.

(2) The semi-annual compliance report must contain the following information:

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy 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 Table 1 to § 63.5170 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 dates you used each option.

(v) A statement that there were no deviations from the standards during the reporting period, and that no CEMS were inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

(h) You must submit, for each deviation occurring at an affected source where you are not using CEMS to comply with the standards in this subpart, the semi-annual compliance report containing the information in paragraphs (g)(2)(i) through (iv) of this section and the information in paragraphs (h)(1) through (3) of this section:

(1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable, and the corrective action taken.

(3) Information on the number, duration, and cause of monitor downtime incidents (including unknown cause other than downtime associated with zero and span and other daily calibration checks, if applicable).

(i) You must submit, for each deviation occurring at an affected source where you are using CEMS to comply with the standards in this subpart, the semi-annual compliance report containing the information in paragraphs (g)(2)(i) through (iv) of this section, and the information in paragraphs (i)(1) through (12) of this section:

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

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

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

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during

a period of start-up, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to start-up, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CEMS downtime during the reporting period, and the total duration of CEMS downtime as a percent of the total source operating time during that reporting period.

(8) A breakdown of the total duration of CEMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(9) A brief description of the metal coil coating line.

(10) The monitoring equipment manufacturer(s) and model number(s).

(11) The date of the latest CEMS certification or audit.

(12) A description of any changes in CEMS, processes, or controls since the last reporting period.

#### **§ 63.5190 What records must I maintain?**

(a) You must maintain the records specified in paragraphs (a) and (b) of this section in accordance with § 63.10(b)(1):

(1) Records of the coating lines on which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.

(2) Records specified in § 63.10(b)(2) of all measurements needed to demonstrate compliance with this subpart, including:

(i) Continuous emission monitor data in accordance with § 63.5150(a)(2);

(ii) Control device and capture system operating parameter data in accordance with § 63.5150(a)(1), (3), and (4);

(iii) Organic HAP content data for the purpose of demonstrating compliance in accordance with § 63.5160(b);

(iv) Volatile matter and solids content data for the purpose of demonstrating compliance in accordance with § 63.5160(c);

(v) Overall control efficiency determination or alternative outlet HAP concentration using capture efficiency tests and control device destruction or removal efficiency tests in accordance with § 63.5160(d), (e), and (f); and

(vi) Material usage, HAP usage, volatile matter usage, and solids usage and compliance demonstrations using these data in accordance with § 63.5170(a), (b), and (d);

(3) Records specified in § 63.10(b)(3); and

(4) Additional records specified in § 63.10(c) for each continuous monitoring system operated by the owner or operator in accordance with § 63.5150(a)(2).

(b) Maintain records of all liquid-liquid material balances that are performed in accordance with the requirements of § 63.5170.

**Delegation of Authority**

**§ 63.5200 What authorities may be delegated to the States?**

(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 EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and not transferred to the State, local, or tribal agency.

(c) Authority which will not be delegated to States, local, or tribal agencies:

(1) Approval of alternatives to the emission limitations in § 63.5120;

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.5160;

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.5150; and

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in §§ 63.5180 and 63.5190.

**§§ 63.5201—63.5209 [Reserved]**

**Tables to Subpart SSSS of Part 63**

If you are required to comply with operating limits by § 63.5121, you must comply with the applicable operating limits in the following table:

**TABLE 1 TO SUBPART SSSS OF PART 63. OPERATING LIMITS IF USING ADD-ON CONTROL DEVICES AND CAPTURE SYSTEM**

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 § 63.5160(d)(3)(i).	i. collecting the combustion temperature data according to § 63.5150(a)(3); 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 § 63.5160(d)(3)(ii); and either  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 § 63.5160(d)(3)(ii); or  c. develop and implement an inspection and maintenance plan according to § 63.5160(d)(3)(ii).	i. collecting the temperature data according to § 63.5150(a)(3); 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.  i. collecting the temperature data according to § 63.5150(a)(3); 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.  maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.5160(d)(3)(ii), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. emission capture system .....	develop a monitoring plan that identifies operating parameter to be monitored and specifies operating limits according to § 63.5150(a)(4).	conducting monitoring according to the plan § 63.5150(a)(4).

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

**TABLE 2 TO SUBPART SSSS OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART SSSS**

General provisions reference	Applicable to subpart SSSS	Explanation
§ 63.1(a)(1)–(4) .....	Yes.	
§ 63.1(a)(5) .....	No .....	Reserved.
§ 63.1(a)(6)–(8) .....	Yes.	
§ 63.1(a)(9) .....	No .....	Reserved.

TABLE 2 TO SUBPART SSSS OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART SSSS—Continued

General provisions reference	Applicable to subpart SSSS	Explanation
§ 63.1(a)(10)–(14)	Yes.	
§ 63.1(b)(1)	No	Subpart SSSS specifies applicability.
§ 63.1(b)(2)–(3)	Yes.	
§ 63.1(c)(1)	Yes.	
§ 63.1(c)(2)	Yes.	
§ 63.1(c)(3)	No	Reserved.
§ 63.1(c)(4)	Yes.	
§ 63.1(c)(5)	Yes.	
§ 63.1(d)	No	Reserved.
§ 63.1(e)	Yes.	
§ 63.2	Yes	Additional definitions in subpart SSSS.
§ 63.3(a)–(c)	Yes.	
§ 63.4(a)(1)–(3)	Yes.	
§ 63.4(a)(4)	No	Reserved.
§ 63.4(a)(5)	Yes.	
§ 63.4(b)–(c)	Yes.	
§ 63.5(a)(1)–(2)	Yes.	
§ 63.5(b)(1)	Yes.	
§ 63.5(b)(2)	No	Reserved.
§ 63.5(b)(3)–(6)	Yes.	
§ 63.5(c)	No	Reserved.
§ 63.5(d)	Yes	Only total HAP emissions in terms of tons per year are required for § 63.5(d)(1)(ii)(H).
§ 63.5(e)	Yes.	
§ 63.5(f)	Yes.	
§ 63.6(a)	Yes.	
§ 63.6(b)(1)–(5)	Yes.	
§ 63.6(b)(6)	No	Reserved.
§ 63.6(b)(7)	Yes.	
§ 63.6(c)(1)–(2)	Yes.	
§ 63.6(c)(3)–(4)	No	Reserved.
§ 63.6(c)(5)	Yes.	
§ 63.6(d)	No	Reserved.
§ 63.6(e)	Yes	Provisions in § 63.6(e)(3) pertaining to startups, shutdowns, malfunctions, and CEMS only apply if an add-on control system is used.
§ 63.6(f)	Yes.	
§ 63.6(g)	Yes.	
§ 63.6(h)	No	Subpart SSSS does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(14)	Yes.	
§ 63.6(i)(15)	No	Reserved.
§ 63.6(i)(16)	Yes.	
§ 63.6(j)	Yes.	
§ 63.7	Yes	With the exception of § 63.7(a)(2)(vii) and (viii), which are reserved.
§ 63.8(a)(1)–(2)	Yes.	
§ 63.8(a)(3)	No	Reserved.
§ 63.8(a)(4)	Yes.	
§ 63.8(b)	Yes.	
§ 63.8(c)(1)–(3)	Yes	Provisions only apply if an add-on control system is used.
§ 63.8(c)(4)	No.	
§ 63.8(c)(5)	No	Subpart SSSS does not require COMS.
§ 63.8(c)(6)	Yes	Provisions only apply if CEMS are used.
§ 63.8(c)(7)–(8)	Yes.	
§ 63.8(d)–(e)	Yes	Provisions only apply if CEMS are used.
§ 63.8(f)(1)–(5)	Yes.	
§ 63.8(f)(6)	No	Section 63.8(f)(6) provisions are not applicable because subpart SSSS does not require CEMS.
§ 63.8(g)(1)–(4)	Yes.	
§ 63.8(g)(5)	No.	
§ 63.9(a)	Yes.	
§ 63.9(b)(1)	Yes.	
§ 63.9(b)(2)	Yes	With the exception that § 63.5180(b)(1) provides 2 years after the proposal date for submittal of the initial notification.
§ 63.9(b)(3)–(5)	Yes.	
§ 63.9(c)–(e)	Yes.	
§ 63.9(f)	No	Subpart SSSS does not require opacity and visible emissions observations.
§ 63.9(g)	No	Provisions for COMS are not applicable.
§ 63.9(h)(1)–(3)	Yes.	

TABLE 2 TO SUBPART SSSS OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART SSSS—Continued

General provisions reference	Applicable to subpart SSSS	Explanation
§ 63.9(h)(4) .....	No .....	Reserved.
§ 63.9(h)(5)–(6) .....	Yes.	
§ 63.9(i) .....	Yes.	
§ 63.9(j) .....	Yes.	
§ 63.10(a) .....	Yes.	
§ 63.10(b)(1)–(3) .....	Yes .....	Provisions pertaining to startups, shutdowns, malfunctions, and maintenance of air pollution control equipment and to CEMS do not apply unless an add-on control system is used. Also, paragraphs (b)(2)(vi), (x), (xi), and (xiii) do not apply.
§ 63.10(c)(1) .....	No.	
§ 63.10(c)(2)–(4) .....	No .....	Reserved.
§ 63.10(c)(5)–(8) .....	No.	
§ 63.10(c)(9) .....	No .....	Reserved.
§ 63.10(c)(10)–(15) .....	No.	
§ 63.10(d)(1)–(2) .....	Yes.	
§ 63.10(d)(3) .....	No .....	Subpart SSSS does not require opacity and visible emissions observations.
§ 63.10(d)(4)–(5) .....	Yes.	
§ 63.10(e) .....	No.	
§ 63.10(f) .....	Yes.	
§ 63.11 .....	Yes.	
§ 63.12 .....	Yes.	
§ 63.13 .....	Yes.	
§ 63.14 .....	Yes .....	Subpart SSSS includes provisions for alternative ASTM and ASME test methods that are incorporated by reference.
§ 63.15 .....	Yes.	

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