

**ENVIRONMENTAL PROTECTION  
AGENCY**
**40 CFR Part 63**

[EPA-HQ-OAR-2017-0668, EPA-HQ-OAR-2017-0669, EPA-HQ-OAR-2017-0670; FRL-9982-40-OAR]

RIN 2060-AT72

**National Emission Standards for  
Hazardous Air Pollutants: Surface  
Coating of Large Appliances; Printing,  
Coating, and Dyeing of Fabrics and  
Other Textiles; and Surface Coating of  
Metal Furniture Residual Risk and  
Technology Reviews**

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

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing the results of the residual risk and technology reviews (RTR) for three rules—the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Surface Coating of Large Appliances; the NESHAP for the Printing, Coating, and Dyeing of Fabrics and Other Textiles; and the NESHAP for the Surface Coating of Metal Furniture. The EPA is proposing to find the risks due to emissions of air toxics from these source categories under the current standards to be acceptable and that the standards provide an ample margin of safety to protect public health. We are proposing no revisions to the numerical emission limits based on these risk analyses or technology reviews. The EPA is proposing no new requirements based on the technology review of the NESHAP for the Printing, Coating, and Dyeing of Fabrics and Other Textiles. The EPA is proposing to require the use of high efficiency spray application equipment under the technology review for the two rules that employ the use of coating spray application, the NESHAP for the Surface Coating of Large Appliances and the NESHAP for the Surface Coating of Metal Furniture, if the source is not using the emission rate with add-on control compliance option. The EPA is also requesting comment on whether the high efficiency spray equipment technology requirement under the technology review is necessary in light of the risk analyses indicating that there are ample margins of safety. The EPA also is proposing to amend provisions addressing emissions during periods of startup, shutdown, and malfunction; to amend provisions regarding electronic reporting of performance test results; and to make miscellaneous clarifying and technical corrections.

**DATES:**

*Comments.* Comments must be received on or before October 29, 2018. Under the Paperwork Reduction Act (PRA), comments on the information collection provisions are best assured of consideration if the Office of Management and Budget (OMB) receives a copy of your comments on or before October 12, 2018.

*Public Hearing.* If a public hearing is requested by September 17, 2018, we will hold a hearing. Additional information about the hearing, if requested, will be published in a subsequent **Federal Register** document and posted at <https://www.epa.gov/stationary-sources-air-pollution/printing-coating-and-dyeing-fabrics-and-other-textiles-national>, <https://www.epa.gov/stationary-sources-air-pollution/surface-coating-large-appliances-national-emission-standards>, and <https://www.epa.gov/stationary-sources-air-pollution/surface-coating-metal-furniture-national-emission-standards>. See **SUPPLEMENTARY INFORMATION** for information on requesting and registering for a public hearing.

**ADDRESSES:**

*Comments.* Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2017-0668 for 40 Code of Federal Regulations (CFR) part 63, subpart OOOO, Printing, Coating, and Dyeing of Fabrics and Other Textiles; Docket ID No. EPA-HQ-OAR-2017-0669 for 40 CFR part 63, subpart RRRR, Surface Coating of Metal Furniture; or Docket ID No. EPA-HQ-OAR-2017-0670 for 40 CFR part 63, subpart NNNN, Surface Coating of Large Appliances, as applicable, at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. *Regulations.gov* is our preferred method of receiving comments. However, other submission methods are accepted. To ship or send mail via the United States Postal Service, use the following address: U.S. Environmental Protection Agency, EPA Docket Center, Docket ID Nos. EPA-HQ-OAR-2017-0668, EPA-HQ-OAR-2017-0669, or EPA-HQ-OAR-2017-0670 (specify the applicable docket number), Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460. Use the following Docket Center address if you are using express mail, commercial delivery, hand delivery, or courier: EPA Docket Center, EPA WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. Delivery

verification signatures will be available only during regular business hours.

Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. See section I.C of this preamble for instructions on submitting CBI. The EPA may publish any comment received to its public docket. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

*Public Hearing.* Please contact Ms. Nancy Perry at (919) 541-5628 or by email at [perry.nancy@epa.gov](mailto:perry.nancy@epa.gov) to request a public hearing, to register to speak at the public hearing, or to inquire as to whether a public hearing will be held.

**FOR FURTHER INFORMATION CONTACT:** For questions about this proposed action for the Surface Coating of Large Appliances source category, contact Ms. Kim Teal, Minerals and Manufacturing Group, Sector Policies and Programs Division (Mail Code D243-04), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Dr., Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5580; fax number: (919) 541-4991; and email address: [teal.kim@epa.gov](mailto:teal.kim@epa.gov).

For questions about this proposed action for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, contact Ms. Paula Hirtz, Minerals and Manufacturing Group, Sector Policies and Programs Division (Mail Code D243-04), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Dr., Research Triangle Park, North Carolina 27711; telephone number: (919) 541-2618; fax number: (919) 541-4991; and email address: [hirtz.paula@epa.gov](mailto:hirtz.paula@epa.gov).

For questions about this proposed action for the Surface Coating of Metal Furniture source category, contact Ms. J. Kaye Whitfield, Minerals and Manufacturing Group, Sector Policies and Programs Division (Mail Code D243-04), Office of Air Quality

Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Dr., Research Triangle Park, North Carolina 27711; telephone number: (919) 541-2509; fax number: (919) 541-4991; and email address: [whitfield.kaye@epa.gov](mailto:whitfield.kaye@epa.gov).

For specific information regarding the risk modeling methodology, contact Mr. Chris Sarsony, Health and Environmental Impacts Division (Mail Code C539-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-4843; fax number: (919) 541-0840; and email address: [sarsony.chris@epa.gov](mailto:sarsony.chris@epa.gov).

For information about the applicability of any of these NESHAP to a particular entity, contact Mr. John Cox, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, EPA WJC South Building (Mail Code 2227A), 1200 Pennsylvania Avenue NW, Washington DC 20460; telephone number: (202) 564-1395; and email address: [cox.john@epa.gov](mailto:cox.john@epa.gov).

#### SUPPLEMENTARY INFORMATION:

**Docket.** The EPA has established three separate dockets for this rulemaking. Docket ID No. EPA-HQ-OAR-2017-0668 has been established for 40 CFR part 63, subpart OOOO, Printing, Coating, and Dyeing of Fabrics and Other Textiles (hereafter referred to as the Fabrics and Other Textiles Docket). Docket ID No. EPA-HQ-OAR-2017-0669 has been established for 40 CFR part 63, subpart RRRR, Surface Coating of Metal Furniture (hereafter referred to as the Metal Furniture Docket). Docket ID No. EPA-HQ-OAR-2017-0670 has been established for 40 CFR part 63, subpart NNNN, Surface Coating of Large Appliances (hereafter referred to as the Large Appliances Docket). All documents in the dockets are listed in *Regulations.gov*. Although listed, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *Regulations.gov* or in hard copy at the EPA Docket Center, Room 3334, EPA WJC West Building, 1301 Constitution Avenue NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone

number for the EPA Docket Center is (202) 566-1742.

**Instructions.** Direct your comments to Docket ID No. EPA-HQ-OAR-2017-0668 for 40 CFR part 63, subpart OOOO, Printing, Coating, and Dyeing of Fabrics and Other Textiles; Docket ID No. EPA-HQ-OAR-2017-0669 for 40 CFR part 63, subpart RRRR, Surface Coating of Metal Furniture; or Docket ID No. EPA-HQ-OAR-2017-0670 for 40 CFR part 63, subpart NNNN, Surface Coating of Large Appliances, as applicable to your comments. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <https://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be CBI or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through <https://www.regulations.gov> or email. This type of information should be submitted by mail as discussed in the **ADDRESSES** section and section I.C of this preamble. The <https://www.regulations.gov> website allows you to submit your comments anonymously, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through <https://www.regulations.gov>, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and be free of any defects or viruses. For additional information about the EPA's public docket, visit the EPA Docket Center homepage at <https://www.epa.gov/dockets>.

**Preamble Acronyms and Abbreviations.** We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ACA American Coatings Association  
 AEGL acute exposure guideline level  
 AERMOD air dispersion model used by the HEM-3 model

BACT best available control technology  
 CAA Clean Air Act  
 CalEPA California EPA  
 CBI Confidential Business Information  
 CFR Code of Federal Regulations  
 ECHO Enforcement and Compliance History Online  
 EPA Environmental Protection Agency  
 ERPG Emergency Response Planning Guideline  
 ERT Electronic Reporting Tool  
 GACT generally available control technology  
 gal gallon  
 HAP hazardous air pollutant(s)  
 HCl hydrochloric acid  
 HEM-3 Human Exposure Model, Version 1.1.0  
 HF hydrogen fluoride  
 HI hazard index  
 HQ hazard quotient  
 IBR incorporation by reference  
 ICAC Institute of Clean Air Companies  
 IRIS Integrated Risk Information System  
 kg kilogram  
 km kilometer  
 LAER lowest achievable emission rate  
 lb pound  
 MACT maximum achievable control technology  
 mg/kg-day milligrams per kilogram per day  
 mg/m<sup>3</sup> milligrams per cubic meter  
 MIR maximum individual risk  
 NAAQS National Ambient Air Quality Standards  
 NAICS North American Industry Classification System  
 NEI National Emission Inventory  
 NESHAP national emission standards for hazardous air pollutants  
 NSR New Source Review  
 NTTAA National Technology Transfer and Advancement Act  
 OAQPS Office of Air Quality Planning and Standards  
 OMB Office of Management and Budget  
 OSHA Occupational Safety and Health Administration  
 PB-HAP hazardous air pollutants known to be persistent and bio-accumulative in the environment  
 PDF portable document format  
 ppmv parts per million by volume  
 ppmw parts per million by weight  
 PTE permanent total enclosure  
 RACT reasonably available control technology  
 REL reference exposure level  
 RFA Regulatory Flexibility Act  
 RfC reference concentration  
 RfD reference dose  
 RTO regenerative thermal oxidizer  
 RTR residual risk and technology review  
 SAB Science Advisory Board  
 SSM startup, shutdown, and malfunction  
 TOSHI target organ-specific hazard index  
 tpy tons per year  
 UF uncertainty factor  
 UMRA Unfunded Mandates Reform Act  
 URE unit risk estimate  
 VCS voluntary consensus standards

**Organization of this Document.** The information in this preamble is organized as follows:

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- J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51
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**I. General Information**

*A. Does this action apply to me?*

Table 1 of this preamble lists the NESHAP and associated regulated industrial source categories that are the subject of this proposal. Table 1 is not intended to be exhaustive, but rather provides a guide for readers regarding the entities that this proposed action is likely to affect. The proposed standards, once promulgated, will be directly applicable to the affected sources. Federal, state, local, and tribal government entities would not be affected by this proposed action. As defined in the *Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990* (see 57 FR 31576, July 16, 1992) and *Documentation for Developing the Initial Source Category List, Final Report* (see EPA-450/3-91-030, July 1992), which provides broad descriptions of the categories of major sources included on the initial list, the Surface Coating of Large Appliances source category includes any facility engaged in the surface coating of any

large appliance part or product. The category includes, but is not limited to, coating of the following large, metal appliance parts or products: ranges, conventional ovens, microwave ovens, refrigerators, freezers, washers, dryers, dishwashers, water heaters or trash compactors manufactured for household, commercial, or recreational use. Facilities in this source category are also major sources of HAP emissions. We estimate that 10 major source facilities engaged in large appliance surface coating would be subject to this proposal. The Printing, Coating, and Dyeing of Fabrics and Other Textiles source category includes any facility engaged in those operations. In fabric printing, a decorative pattern or design is applied to fabric by methods such as roller, flat screen, or rotary screen. Fabric coating is an operation that imparts to a textile substrate, additional properties such as strength, stability, water or acid repellency, or other specific characteristics of appearance. Fabric dyeing is the process in which color is added to a substrate. This category includes, but is not limited to, coating of industrial and electrical tapes, tire cord, utility meter seals, imitation leathers, tarpaulins, shoe material, and upholstery fabrics. We estimate that 43 major source facilities engaged in the printing, coating, and dyeing of fabrics and other textiles would be subject to this proposal. The Surface Coating of Metal Furniture source category includes any facility engaged in the surface coating and manufacture of metal furniture parts or products. Such products may include chairs, tables, cabinets and bookcases. We estimate that 16 major source facilities engaged in metal furniture surface coating would be subject to this proposal.

**TABLE 1—NESHAP AND INDUSTRIAL AND GOVERNMENT SOURCE CATEGORIES AFFECTED BY THIS PROPOSED ACTION**

NESHAP and source category	NAICS code <sup>1</sup>	Regulated entities <sup>2</sup>
Surface Coating of Large Appliances .....	335221	Household cooking equipment.
	335222	Household refrigerators and freezers.
	335224	Household laundry equipment.
	335228	Other major household appliances.
	333312	Commercial laundry, dry cleaning, and pressing equipment.
	333415	Air-conditioners (except motor vehicle), comfort furnaces, and industrial refrigeration units and freezers (except heat transfer coils and large commercial and industrial chillers).
Printing, Coating, and Dyeing of Fabrics and Other Textiles.	<sup>3</sup> 333319	Other commercial/service industry machinery, e.g., commercial dishwashers, ovens, and ranges, etc.
	31321	Broadwoven fabric mills.
	31322	Narrow fabric mills and Schiffli machine embroidery.
	313241	Weft knit fabric mills.
	313311	Broadwoven fabric finishing mills.
	313312	Textile and fabric finishing (except broadwoven fabric) mills.
	313320	Fabric coating mills.

TABLE 1—NESHAP AND INDUSTRIAL AND GOVERNMENT SOURCE CATEGORIES AFFECTED BY THIS PROPOSED ACTION—Continued

NESHAP and source category	NAICS code <sup>1</sup>	Regulated entities <sup>2</sup>
Surface Coating of Metal Furniture .....	314110	Carpet and rug mills.
	326220	Rubber and plastics hoses and belting and manufacturing.
	339991	Gasket, packing, and sealing device manufacturing.
	337124	Metal Household Furniture Manufacturing.
	337214	Nonwood Office Furniture Manufacturing.
	337127	Institutional Furniture Manufacturing.
	337215	Showcase, Partition, Shelving, and Locker Manufacturing.
	337127	Institutional Furniture Manufacturing.
	332951	Hardware Manufacturing.
	332116	Metal Stamping.
	332612	Wire Spring Manufacturing.
	337215	Showcase, Partition, Shelving, and Locker Manufacturing.
	335121	Residential Electric Lighting Fixture Manufacturing.
	335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing.
	339111	Laboratory Furniture Manufacturing.
339114	Dental Equipment Manufacturing.	
337127	Institutional Furniture Manufacturing.	
	81142	Reupholstery and Furniture Repair
	922140	State correctional institutions that apply coatings to metal furniture.

<sup>1</sup> North American Industry Classification System.

<sup>2</sup> Regulated entities means major source facilities that apply surface coatings to these parts or products.

<sup>3</sup> Excluding special industry machinery, industrial and commercial machinery and equipment, and electrical machinery equipment and supplies not elsewhere classified.

*B. Where can I get a copy of this document and other related information?*

In addition to being available in the dockets for this action, an electronic copy of this proposed action is available on the internet. Following signature by the EPA Administrator, the EPA will post a copy of this proposed action at <https://www.epa.gov/stationary-sources-air-pollution/printing-coating-and-dyeing-fabrics-and-other-textiles-national#rule-summary>, <https://www.epa.gov/stationary-sources-air-pollution/surface-coating-large-appliances-national-emission-standards>, and <https://www.epa.gov/stationary-sources-air-pollution/surface-coating-metal-furniture-national-emission-standards>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the proposal and key technical documents at these same websites. Information on the overall RTR program is available at <https://www3.epa.gov/ttn/atw/rrisk/rtrpg.html>.

A redline version of the regulatory language that incorporates the proposed changes in this action is available in the Fabrics and Other Textiles Docket, Metal Furniture Docket, and Large Appliances Docket.

*C. What should I consider as I prepare my comments for the EPA?*

**Submitting CBI.** Do not submit information containing CBI to the EPA through <https://www.regulations.gov> or email. Clearly mark the part or all of the

information that you claim to be CBI. For CBI information on any digital storage media that you mail to the EPA, mark the outside of the digital storage media as CBI and then identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete version of the comments that includes information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI directly to the public docket through the procedures outlined *Instructions* above. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and the EPA’s electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Send or deliver information identified as CBI only to the following address: OAQPS Document Control Officer (Mail Code C404–02), OAQPS, U.S. Environmental Protection Agency, 109 T. W. Alexander Dr., Research Triangle Park, North Carolina 27711, Attention Docket ID No. EPA–HQ–OAR–2017–0668 for Printing, Coating, and Dyeing of Fabrics and Other Textiles; Docket ID No. EPA–HQ–OAR–2017–0669 for Surface Coating of Metal Furniture; or Docket ID No. EPA–HQ–OAR–2017–0670 for Surface

Coating of Large Appliances, as applicable.

**II. Background**

*A. What is the statutory authority for this action?*

The statutory authority for this action is provided by sections 112 and 301 of the Clean Air Act (CAA), as amended (42 U.S.C. 7401 *et seq.*).<sup>1</sup> Section 112 of the CAA establishes a two-stage regulatory process to develop standards for emissions of hazardous air pollutants (HAP) from stationary sources. Generally, the first stage involves establishing technology-based standards and the second stage involves evaluating those standards that are based on maximum achievable control technology (MACT) to determine whether additional standards are needed to further address any remaining risk associated with HAP emissions. This second stage is commonly referred to as the “residual risk review.” In addition to the residual risk review, the CAA also requires the EPA to review standards set under CAA section 112 every eight years to determine if there are “developments in practices, processes, or control technologies” that may be appropriate to incorporate into the standards. This review is commonly referred to as the “technology review.” When the two reviews are combined into a single rulemaking, it is commonly

<sup>1</sup> In addition, section 301 of the CAA provides general authority for the Administrator to “prescribe such regulations as are necessary to carry out his functions” under the Act.

referred to as the “risk and technology review.” The discussion that follows identifies the most relevant statutory sections and briefly explains the contours of the methodology used to implement these statutory requirements. A more comprehensive discussion appears in the document titled *CAA Section 112 Risk and Technology Reviews: Statutory Authority and Methodology* in the dockets for each subpart in this rulemaking.

In the first stage of the CAA section 112 standard setting process, the EPA promulgates technology-based standards under CAA section 112(d) for categories of sources identified as emitting one or more of the HAP listed in CAA section 112(b). Sources of HAP emissions are either major sources or area sources, and CAA section 112 establishes different requirements for major source standards and area source standards. “Major sources” are those that emit or have the potential to emit 10 tons per year (tpy) or more of a single HAP or 25 tpy or more of any combination of HAP. All other sources are “area sources.” For major sources, CAA section 112(d) provides that the technology-based NESHAP must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). These standards are commonly referred to as MACT standards. CAA section 112(d)(3) also establishes a minimum control level for MACT standards, known as the MACT “floor.” The EPA must also consider control options that are more stringent than the floor. Standards more stringent than the floor are commonly referred to as beyond-the-floor standards. In certain instances, as provided in CAA section 112(h), the EPA may set work practice standards where it is not feasible to prescribe or enforce a numerical emission standard. For area sources, CAA section 112(d)(5) gives the EPA discretion to set standards based on generally available control technologies or management practices (GACT standards) in lieu of MACT standards.

The second stage in standard-setting focuses on identifying and addressing any remaining (*i.e.*, “residual”) risk according to CAA section 112(f). Section 112(f)(2) of the CAA requires the EPA to determine for source categories subject to MACT standards whether promulgation of additional standards is needed to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect. Section 112(d)(5) of the CAA provides that this residual risk review is not required for categories of area

sources subject to GACT standards. Section 112(f)(2)(B) of the CAA further expressly preserves the EPA’s use of the two-step approach for developing standards to address any residual risk and the Agency’s interpretation of “ample margin of safety” developed in the *National Emissions Standards for Hazardous Air Pollutants: Benzene Emissions from Maleic Anhydride Plants, Ethylbenzene/Styrene Plants, Benzene Storage Vessels, Benzene Equipment Leaks, and Coke By-Product Recovery Plants* (Benzene NESHAP) (54 FR 38044, September 14, 1989). The EPA notified Congress in the Risk Report that the Agency intended to use the Benzene NESHAP approach in making CAA section 112(f) residual risk determinations (EPA-453/R-99-001, p. ES-11). The EPA subsequently adopted this approach in its residual risk determinations and the United States Court of Appeals for the District of Columbia Circuit (the Court) upheld the EPA’s interpretation that CAA section 112(f)(2) incorporates the approach established in the Benzene NESHAP. See *NRDC v. EPA*, 529 F.3d 1077, 1083 (DC Cir. 2008).

The approach incorporated into the CAA and used by the EPA to evaluate residual risk and to develop standards under CAA section 112(f)(2) is a two-step approach. In the first step, the EPA determines whether risks are acceptable. This determination “considers all health information, including risk estimation uncertainty, and includes a presumptive limit on maximum individual lifetime [cancer] risk (MIR)<sup>2</sup> of approximately [1-in-10 thousand] [*i.e.*, 100-in-1 million].” 54 FR 38045, September 14, 1989. If risks are unacceptable, the EPA must determine the emissions standards necessary to bring risks to an acceptable level without considering costs. In the second step of the approach, the EPA considers whether the emissions standards provide an ample margin of safety “in consideration of all health information, including the number of persons at risk levels higher than approximately [1-in-1 million], as well as other relevant factors, including costs and economic impacts, technological feasibility, and other factors relevant to each particular decision.” *Id.* The EPA must promulgate emission standards necessary to provide an ample margin of safety to protect public health. After conducting the ample margin of safety analysis, we consider whether a more

<sup>2</sup> Although defined as “maximum individual risk,” MIR refers only to cancer risk. MIR, one metric for assessing cancer risk, is the estimated risk if an individual were exposed to the maximum level of a pollutant for a lifetime.

stringent standard is necessary to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.

CAA section 112(d)(6) separately requires the EPA to review standards promulgated under CAA section 112 and revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less frequently than every eight years. In conducting this review, which we call the “technology review,” the EPA is not required to recalculate the MACT floor. *Natural Resources Defense Council (NRDC) v. EPA*, 529 F.3d 1077, 1084 (D.C. Cir. 2008). *Association of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667 (D.C. Cir. 2013). The EPA may consider cost in deciding whether to revise the standards pursuant to CAA section 112(d)(6).

*B. What are the source categories and how do the current NESHAP regulate their HAP emissions?*

1. What is the Surface Coating of Large Appliances source category and how does the current NESHAP regulate its HAP emissions?

a. Source Category Description

The NESHAP for the Surface Coating of Large Appliances source category was promulgated on July 23, 2002 (67 FR 48254), and codified at 40 CFR part 63, subpart NNNN. As promulgated in 2002, the Surface Coating of Large Appliances NESHAP applies to the surface coating and related operations at each new and existing affected source of HAP emissions at facilities that are major sources and are engaged in the surface coating of a large appliance part or product. The Surface Coating of Large Appliances NESHAP (40 CFR 63.4081) defines a “large appliance part or product” as “a component of a large appliance product manufactured for household, recreational, institutional, commercial, or industrial use” including, but not limited to, “cooking equipment; refrigerators, freezers, and refrigerated cabinets and cases; laundry equipment; dishwashers, trash compactors, and water heaters; and heating, ventilation, and air-conditioning (HVAC) units, air-conditioning (except motor vehicle) units, air-conditioning and heating combination units, comfort furnaces, and electric heat pumps. Specifically excluded are heat transfer coils and large commercial and industrial chillers.”

Based on our search of the National Emission Inventory (NEI) ([www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei](http://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei)) and the EPA’s

Enforcement and Compliance History Online (ECHO) database ([www.echo.epa.gov](http://www.echo.epa.gov)) and a review of active air emissions permits, we estimate that ten facilities are subject to the Surface Coating of Large Appliances NESHAP. A complete list of facilities subject to the Surface Coating of Large Appliances NESHAP is available in Table 1 of Appendix 10 to the memorandum titled *Residual Risk Assessment for the Surface Coating of Large Appliances Source Category in Support of the May 2018 Risk and Technology Review Proposed Rule* (hereafter referred to as the *Large Appliances Risk Assessment Report*) in the Large Appliances Docket (Docket ID No. EPA-HQ-OAR-2017-0670). The Surface Coating of Large Appliances NESHAP also defines a coating as a “material that is applied to a substrate for decorative, protective or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.”

#### b. HAP Emission Sources

The primary HAP emitted from large appliance surface coating operations are organic HAP and include xylene, glycol ethers, toluene, methanol, ethyl benzene, methylene chloride, and methyl isobutyl ether. Approximately 80 percent of the HAP emissions from the Surface Coating of Large Appliances source category occur from the coating operations and from the mixing and storage areas. At the time of the original rule promulgation in 2002, most large appliance coating was applied either by using a spray gun in a spray booth or by dipping the substrate in a tank. Inorganic HAP emissions were considered in the development of the Surface Coating of Large Appliances NESHAP. Inorganic HAP, including chromium, cobalt, lead, and manganese compounds, are components of some specialty coatings used by this source category. However, most of the inorganic HAP components remain as solids in the dry coating film on the parts being coated or are deposited onto the walls, floor, and grates of the spray booths in which they are applied. The remaining inorganic HAP particles are entrained in the spray booth exhaust air. Spray booths in the large appliance industry typically have either water curtains or dry filters to remove overspray particles from the exhaust air. No inorganic HAP were reported in the

cleaning materials in the data collected to develop the Surface Coating of Large Appliances NESHAP. No inorganic HAP were reported in the NEI data used for this RTR for surface coating operations at major source large appliance manufacturing facilities.

#### c. NESHAP Requirements for Control of HAP

We estimated that the Surface Coating of Large Appliances NESHAP requirements would reduce the emissions of organic HAP from the source category by 45 percent or 1,191 tons per year (67 FR 48259, July 23, 2002). The NESHAP specifies numerical emission limits for organic HAP emissions from surface coating application operations. The organic HAP emission limit for existing sources is 0.13 kilogram (kg) organic HAP/liter (1.1 pound/gallon (lb/gal)) of coating solids and for new or reconstructed sources is 0.022 kg organic HAP/liter (0.18 lb/gal) of coating solids.

The Surface Coating of Large Appliances NESHAP provides existing sources three compliance options: (1) Compliant coatings *i.e.*, all coatings have less than or equal to 0.13 kg organic HAP/liter (1.1 pound/gallon (lb/gal)) of coating solids; (2) emission rate without add-on controls; or (3) emission rate with add-on controls.

For any coating operation(s) on which the facility uses the compliant material option or the emission rate without add-on controls option, the facility is not required to meet any work practice standards.

If the facility uses the emission rate with add-on controls option, the facility must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation(s) using that option. The plan must specify practices and procedures to ensure that a set of minimum work practices specified in the NESHAP are implemented. The facility must also comply with site-specific operating limits for the emission capture and control system.

2. What is the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category and how does the current NESHAP regulate its HAP emissions?

#### a. Source Category Description

The NESHAP for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category was promulgated on May 29, 2003 (68 FR

32172), and codified at 40 CFR part 63, subpart OOOO. As promulgated in 2003, the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP applies to the printing, coating, slashing, dyeing, or finishing of fabrics and other textiles and related operations at each new and existing affected source of HAP emissions at facilities that are major sources and are engaged in the printing, coating, slashing, dyeing, or finishing of fabrics and other textiles. The Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP (40 CFR 63.4371) defines a fabric as any woven, knitted, plaited, braided, felted, or non-woven material made of filaments, fibers, or yarns including thread. This term includes material made of fiberglass, natural fibers, synthetic fibers, or composite. The NESHAP defines textile as any one of the following: (1) Staple fibers and filaments suitable for conversion to or use as yarns, or for the preparation of woven, knit, or nonwoven fabrics; (2) Yarns made from natural or manufactured fibers; (3) Fabrics and other manufactured products made from staple fibers and filaments and from yarn; and (4) Garments and other articles fabricated from fibers, yarns, or fabrics.

Based on our search of the NEI and EPA's ECHO database and a review of active air emission permits, we estimate that 43 facilities are subject to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. A complete list of facilities we identified as subject to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP is available in Table 1 of Appendix 10 to the memorandum titled *Residual Risk Assessment for the Printing, Coating, and Dyeing of Fabrics and Other Textiles Source Category in Support of the May 2018 Risk and Technology Review Proposed Rule* (hereafter referred to as the *Fabrics and Other Textiles Risk Assessment Report*), in the Fabrics and Other Textiles Docket (Docket ID No. EPA-HQ-OAR-2017-0668).

The Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP also defines a coating material as an elastomer, polymer, or prepolymer material applied as a thin layer to a textile web. Such materials include, but are not limited to, coatings, sealants, inks, and adhesives. Decorative, protective, or functional materials that consist only of acids, bases, or any combination of these substances are not considered coating materials for the purposes of this subpart. Thinning materials also are not included in this

definition of coating materials but are accounted for separately.

#### b. HAP Emission Sources

The primary HAP emitted from printing, coating, and dyeing operations are organic HAP and include toluene, phenol, methanol, and N,N-dimethylformamide. The majority of organic HAP emissions (greater than 95 percent) come from the coating and printing subcategories, with the remainder coming from dyeing and finishing.

Inorganic HAP emissions were considered in the development of the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. Based on information reported in survey responses during the development of the 2002 proposed NESHAP, inorganic HAP, including chromium, cobalt, hydrogen chloride (HCl), lead, manganese compounds, and nickel were components of some coatings, dyes, and finishes used by this source category. However, we concluded that inorganic HAP are not likely to be emitted from these sources because of the application techniques used (67 FR 46032, July 11, 2002). No inorganic HAP were reported in the NEI data used for this RTR for printing, coating, and dyeing of fabrics and other textiles operations at major source facilities.

#### c. NESHAP Requirements for Control of HAP

We estimated that the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP requirements would reduce the emissions of organic HAP from the source category by 60 percent or 4,100 tpy (68 FR 32172, May 29, 2003). The NESHAP specifies numerical emission limits for organic HAP emissions from three subcategories of surface coating application operations: Printing and coating; dyeing and finishing; and slashing. The organic HAP emission limit for existing printing or coating affected sources is 0.12 kg organic HAP/kg (lb/lb) of coating solids applied and for new or reconstructed affected sources is 0.08 kg organic HAP/kg (lb/lb) of coating solids applied. Printing or coating affected sources may also demonstrate compliance by achieving at least a 98-percent HAP reduction for new affected sources or a 97-percent HAP reduction for existing sources. New and existing sources using a thermal oxidizer may also comply by achieving a HAP concentration at the oxidizer outlet of no greater than 20 parts per million by volume (ppmv) on a dry basis and having an emission capture system with 100-percent efficiency.

For new, reconstructed, or existing dyeing and finishing operations, the emission limit for conducting dyeing operations is 0.016 kg organic HAP/kg (lb/lb) dyeing materials applied; the limit for conducting finishing operations is 0.0003 kg organic HAP/kg (lb/lb) finishing materials applied; and the limit for conducting both dyeing and finishing operations is 0.016 kg organic HAP/kg (lb/lb) dyeing and finishing materials applied. For new, reconstructed, or existing slashing operations, the slashing materials must contain no organic HAP (each organic HAP that is not an Occupational Safety and Health Administration (OSHA)-defined carcinogen that is measured to be present at less than one percent by weight is counted as zero).

For any coating, printing, or dyeing operation(s) on which the facility uses the compliant material option or the emission rate without add-on controls option, the facility is not required to meet any work practice standards.

If the facility uses an add-on control device to demonstrate compliance, the facility must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation(s) using that option. The plan must specify practices and procedures to ensure that a set of minimum work practices specified in the NESHAP are implemented. The facility must also comply with site-specific operating limits for the emission capture and control system.

### 3. What is the Surface Coating of Metal Furniture source category and how does the current NESHAP regulate its HAP emissions?

#### a. Source Category Description

The NESHAP for the Surface Coating of Metal Furniture source category was promulgated on May 23, 2003 (68 FR 28606), and codified at 40 CFR part 63, subpart RRRR. As promulgated in 2003, the Surface Coating of Metal Furniture NESHAP applies to the surface coating and related operations at each new and existing affected source of HAP emissions at facilities that are major sources and are engaged, either in part or in whole, in the surface coating of metal furniture. The Surface Coating of Metal Furniture NESHAP (40 CFR 63.4881) defines metal furniture as furniture or components of furniture constructed either entirely or partially from metal. Metal furniture includes, but is not limited to, components of the following types of products as well as

the products themselves: Household, office, institutional, laboratory, hospital, public building, restaurant, barber and beauty shop, and dental furniture; office and store fixtures; partitions; shelving; lockers; lamps and lighting fixtures; and wastebaskets.

Based on our search of the NEI and the EPA's ECHO database and a review of active air emission permits, we estimate that 16 facilities are subject to the Surface Coating of Metal Furniture NESHAP. A complete list of facilities subject to the Surface Coating of Metal Furniture NESHAP is available in Table 1 of Appendix 10 to the memorandum titled *Residual Risk Assessment for the Surface Coating of Metal Furniture Source Category in Support of the May 2018 Risk and Technology Review Proposed Rule* (hereafter referred to as the *Metal Furniture Risk Assessment Report*), in the Metal Furniture Docket (Docket ID No. EPA-HQ-OAR-2017-0669). The Surface Coating of Metal Furniture NESHAP defines a coating as a "material that is applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, and maskants."

#### b. HAP Emission Sources

Most of the organic HAP emissions from metal furniture surface coating operations occur from the coating application operations and the drying and curing ovens. In most cases, HAP emissions from surface preparation, storage, and handling are relatively small for this source category. The primary organic HAP emitted from metal furniture surface coating operations are xylene, glycol ethers, ethylbenzene, toluene, and cumene. These compounds account for more than 95 percent of this category's nationwide organic HAP emissions from major sources.

Inorganic HAP emissions, such as chromium, lead, and manganese compounds, were considered in the development of the Surface Coating of Metal Furniture NESHAP, and the EPA determined that inorganic HAP emissions would be very low (67 FR 20206, April 24, 2002). At that time, approximately 680 coatings were reported in the survey responses from the metal furniture industry, and only two coatings were reported as containing inorganic HAP. In the NEI data used for this risk and technology review, only one facility reported inorganic HAP emissions (antimony, 0.015 tpy, and nickel, 0.003 tpy) from metal furniture surface coating operations. According to the reporting facility, the reported emissions in the

NEI were conservatively over-estimated by an approximate factor of 10.<sup>3</sup>

#### c. NESHAP Requirements for Control of HAP

We estimated the Surface Coating of Metal Furniture NESHAP requirements would reduce the emissions of organic HAP from the source category by 73 percent or 16,300 tpy (68 FR 28606, May 23, 2003). The NESHAP specifies numerical emission limits for organic HAP emissions from surface coating application operations. The organic HAP emission rate for existing sources is no more than 0.10 kg organic HAP/liter (0.83 lb/gal) of coating solids used during each compliance period. A new or reconstructed affected source can emit no organic HAP during any compliance period unless a source requests approval from the Administrator to use an alternative new source emission limit for specific metal furniture components or types of components.

The Surface Coating of Metal Furniture NESHAP provides existing sources three compliance options: (1) Use only compliant coatings *i.e.*, all coatings have less than or equal to 0.10 kg organic HAP/liter (0.83 lb/gal) of coating solids used; (2) collectively manage the coatings such that the monthly emission rate of organic HAP is less than or equal to 0.10 kg organic HAP/liter (0.83 lb/gal) coating solids used; or (3) use emission capture systems and control devices to achieve an organic HAP emission rate of less than or equal to 0.10 kg organic HAP/liter (0.83 lb/gal) coating solids used.

For any metal furniture coating operation(s) on which the facility uses the compliant material option or the emission rate without add-on controls option, the facility is not required to meet any work practice standards.

If the facility uses an add-on control device to demonstrate compliance, the facility must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation(s) using that option. The plan must specify practices and procedures to ensure that a set of minimum work practices specified in the NESHAP are implemented. The facility must also comply with site-specific operating limits for the emission capture and control system.

#### C. What data collection activities were conducted to support this action?

For the risk modeling portion of these RTRs, the EPA used data from the 2011 and 2014 NEI. The NEI is a database that contains information about sources that emit criteria air pollutants, their precursors, and HAP. The database includes estimates of annual air pollutant emissions from point, nonpoint, and mobile sources in the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. The EPA collects this information and releases an updated version of the NEI database every three years. The NEI includes data necessary for conducting risk modeling, including annual HAP emissions estimates from individual emission points at facilities and the related emissions release parameters. We used NEI emissions and supporting data as the primary data to develop the model input files for the risk assessments for each of these three source categories. Additional information on the development of the modeling file for each source category can be found in Appendix 1 to the *Large Appliances Risk Assessment Report* in the Large Appliances Docket (Docket ID No. EPA-HQ-OAR-2017-0670), Appendix 1 to the *Fabrics and Other Textiles Risk Assessment Report* in the Fabrics and Other Textiles Docket (Docket ID No. EPA-HQ-OAR-2017-0668), and Appendix 1 to the *Metal Furniture Risk Assessment Report* in the Metal Furniture Docket (Docket ID No. EPA-HQ-OAR-2017-0669).

For both the risk modeling and technology review portion of these RTRs, we also gathered data from facility construction and operating permits, regarding emission points, air pollution control devices, and process operations. We collected permits and supporting documentation from state permitting authorities through state-maintained online databases. The facility permits were also used to confirm that the facilities were major sources of HAP and were subject to the NESHAP that are the subject of these risk assessments. In certain cases, we contacted facility owners or operators to confirm and clarify the sources of emissions that were reported in the NEI. No formal information collection request was performed.

For the technology review portion of these RTRs, we also used information from the EPA's ECHO database as a tool to identify which facilities were potentially subject to the NESHAP. The ECHO database provides integrated compliance and enforcement information for approximately 800,000

regulated facilities nationwide. Using the search feature in ECHO, the EPA identified facilities that could potentially be subject to each of these three NESHAP. We then reviewed operating permits for these facilities, when available, to confirm that they were major sources of HAP with emission sources subject to these NESHAP.

Also for the technology reviews, we collected information from the Reasonably Available Control Technology (RACT), Best Available Control Technology (BACT), and Lowest Achievable Emission Rate (LAER) determinations in the EPA's RACT/BACT/LAER Clearinghouse (RBLC).<sup>4</sup> This is a database that contains case-specific information on air pollution technologies that have been required to reduce the emissions of air pollutants from stationary sources. Under the EPA's New Source Review (NSR) program, if a facility is planning new construction or a modification that will increase the air emissions by a large amount, an NSR permit must be obtained. This central database promotes the sharing of information among permitting agencies and aids in case-by-case determinations for NSR permits. We examined information contained in the RBLC to determine what technologies are currently used for these surface coating operations to reduce air emissions.

Additional information about these data collection activities for the technology reviews is contained in the technology review memoranda titled *Technology Review for Surface Coating Operations in the Large Appliance Category, August 2017* (hereafter referred to as the *Large Appliances Technology Review Memo*), *Technology Review for Printing, Coating, and Dyeing Category, August 2017* (hereafter referred to as the *Fabrics and Other Textiles Technology Review Memo*), and *Technology Review for Surface Coating Operations in the Metal Furniture Category, September 2017* (hereafter referred to as the *Metal Furniture Technology Review Memo*), available respectively in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket.

#### D. What other relevant background information and data are available?

For the technology review for each source category, we reviewed the NESHAP for various industries that were promulgated since the MACT standards being reviewed in this action.

<sup>4</sup> <https://www.epa.gov/catc/ractbactlaer-clearinghouse-rblc-basic-information>.

<sup>3</sup> Telephone communication between Kaye Whitfield, U.S. EPA and Marley Ayres, Pinnacle Engineering, February 7, 2018.



We reviewed the regulatory requirements and/or technical analyses associated with these later regulatory actions to identify any practices, processes, and control technologies considered in those rulemakings that could be applied to emission sources in each of these three source categories, as well as the costs, non-air impacts, and energy implications associated with the use of those technologies. We also reviewed information available in the American Coatings Association's (ACA) *Industry Market Analysis*, 9th Edition (2014–2019),<sup>5</sup> for the Surface Coating of Metal Furniture and Surface Coating of Large Appliances source categories. The *ACA Industry Market Analysis* provided information on trends in coatings technology that can affect emissions from the metal furniture and large appliance source categories, but did not address the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category. Additional details regarding our review of these information sources are contained in the *Large Appliances Technology Review Memo*, the *Fabrics and Other Textiles Technology Review Memo*, and the *Metal Furniture Technology Review Memo*, available in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket, respectively.

### III. Analytical Procedures

In this section, we describe the analyses performed to support the proposed decisions for the RTRs and other issues addressed in this proposal.

#### A. How do we consider risk in our decision-making?

As discussed in section II.A of this preamble and in the Benzene NESHAP, in evaluating and developing standards under CAA section 112(f)(2), we apply a two-step approach to determine whether or not risks are acceptable and to determine if the standards provide an ample margin of safety to protect public health. As explained in the Benzene NESHAP, “the first step judgment on acceptability cannot be reduced to any single factor” and, thus, “[t]he Administrator believes that the acceptability of risk under section 112 is best judged on the basis of a broad set of health risk measures and information.” 54 FR 38046, September 14, 1989. Similarly, with regard to the ample margin of safety determination, “the Agency again considers all of the health risk and other health information

considered in the first step. Beyond that information, additional factors relating to the appropriate level of control will also be considered, including cost and economic impacts of controls, technological feasibility, uncertainties, and any other relevant factors.” *Id.*

The Benzene NESHAP approach provides flexibility regarding factors the EPA may consider in making determinations and how the EPA may weigh those factors for each source category. The EPA conducts a risk assessment that provides estimates of the MIR posed by the HAP emissions from each source in the source category, the hazard index (HI) for chronic exposures to HAP with the potential to cause noncancer health effects, and the hazard quotient (HQ) for acute exposures to HAP with the potential to cause noncancer health effects.<sup>6</sup> The assessment also provides estimates of the distribution of cancer risks within the exposed populations, cancer incidence, and an evaluation of the potential for adverse environmental effects. The scope of EPA's risk analysis is consistent with EPA's response to comments on our policy under the Benzene NESHAP where the EPA explained that:

“[t]he policy chosen by the Administrator permits consideration of multiple measures of health risk. Not only can the MIR figure be considered, but also incidence, the presence of noncancer health effects, and the uncertainties of the risk estimates. In this way, the effect on the most exposed individuals can be reviewed as well as the impact on the general public. These factors can then be weighed in each individual case. This approach complies with the Vinyl Chloride mandate that the Administrator ascertain an acceptable level of risk to the public by employing his expertise to assess available data. It also complies with the Congressional intent behind the CAA, which did not exclude the use of any particular measure of public health risk from the EPA's consideration with respect to CAA section 112 regulations, and thereby implicitly permits consideration of any and all measures of health risk which the Administrator, in his judgment, believes are appropriate to determining what will ‘protect the public health’.” See 54 FR 38057, September 14, 1989.

<sup>6</sup>The MIR is defined as the cancer risk associated with a lifetime of exposure at the highest concentration of HAP where people are likely to live. The HQ is the ratio of the potential exposure to the HAP to the level at or below which no adverse chronic noncancer effects are expected; the HI is the sum of HQs for HAP that affect the same target organ or organ system.

Thus, the level of the MIR is only one factor to be weighed in determining acceptability of risks. The Benzene NESHAP explained that “an MIR of approximately one in ten thousand should ordinarily be the upper end of the range of acceptability. As risks increase above this benchmark, they become presumptively less acceptable under CAA section 112, and would be weighed with the other health risk measures and information in making an overall judgment on acceptability. Or, the Agency may find, in a particular case, that a risk that includes MIR less than the presumptively acceptable level is unacceptable in the light of other health risk factors.” *Id.* at 38045. Similarly, with regard to the ample margin of safety analysis, the EPA stated in the Benzene NESHAP that: “EPA believes the relative weight of the many factors that can be considered in selecting an ample margin of safety can only be determined for each specific source category. This occurs mainly because technological and economic factors (along with the health-related factors) vary from source category to source category.” *Id.* at 38061. We also consider the uncertainties associated with the various risk analyses, as discussed earlier in this preamble, in our determinations of acceptability and ample margin of safety.

The EPA notes that it has not considered certain health information to date in making residual risk determinations. At this time, we do not attempt to quantify those HAP risks that may be associated with emissions from other facilities that do not include the source categories under review, mobile source emissions, natural source emissions, persistent environmental pollution, or atmospheric transformation in the vicinity of the sources in the categories.

The EPA understands the potential importance of considering an individual's total exposure to HAP in addition to considering exposure to HAP emissions from the source category and facility. We recognize that such consideration may be particularly important when assessing noncancer risks, where pollutant-specific exposure health reference levels (*e.g.*, reference concentrations (RfCs)) are based on the assumption that thresholds exist for adverse health effects. For example, the EPA recognizes that, although exposures attributable to emissions from a source category or facility alone may not indicate the potential for increased risk of adverse noncancer health effects in a population, the exposures resulting from emissions from the facility in combination with emissions from all of

<sup>5</sup>Prepared for the American Coatings Association, Washington, DC, by The ChemQuest Group, Inc., Cincinnati, Ohio. 2015.

the other sources (e.g., other facilities) to which an individual is exposed may be sufficient to result in increased risk of adverse noncancer health effects. In May 2010, the Science Advisory Board (SAB) advised the EPA “that RTR assessments will be most useful to decision makers and communities if results are presented in the broader context of aggregate and cumulative risks, including background concentrations and contributions from other sources in the area.”<sup>7</sup>

In response to the SAB recommendations, the EPA is incorporating certain cumulative risk analyses into its RTR risk assessments, including those reflected in this proposal. Specifically, the Agency is (1) conducting facility-wide assessments, which include source category emission points, as well as other emission points within the facilities; (2) combining exposures from multiple sources in the same category that could affect the same individuals; and (3) for some persistent and bioaccumulative pollutants, analyzing the ingestion route of exposure. In addition, the RTR risk assessments have always considered aggregate cancer risk from all carcinogens and aggregate noncancer HI from all noncarcinogens affecting the same target organ system.

Although we look at the cumulative risks from all sources at facilities within the category, we do not assess the cumulative risks from facilities outside the category that may be in the vicinity. We are interested in placing source category and facility-wide HAP risks in the context of total HAP risks from all sources of HAP in the vicinity of each source. However, because of the contribution to total HAP risk from emission sources other than those that we have studied, in depth, during this RTR review, such estimates of total HAP risks would have significantly greater associated uncertainties than the source category or facility-wide estimates. Such aggregate or cumulative assessments would compound those uncertainties, making the assessments too unreliable.

#### B. How do we perform the technology review?

Our technology reviews focus on the identification and evaluation of developments in practices, processes,

and control technologies that have occurred since the MACT standards were promulgated. Where we identify such developments, in order to inform our decision of whether it is “necessary” to revise the emissions standards, we analyze the technical feasibility of applying these developments and the estimated costs, energy implications, and non-air environmental impacts, and we also consider the emission reductions. In addition, we consider the appropriateness of applying controls to future affected sources versus retrofitting affected sources currently subject to the NESHAP.

For this exercise, we consider any of the following to be a “development”:

- Any add-on control technology or other equipment that was not identified and considered during development of the original MACT standards;
- Any improvements in add-on control technology or other equipment (that were identified and considered during development of the original MACT standards) that could result in additional emissions reduction;
- Any work practice or operational procedure that was not identified or considered during development of the original MACT standards;
- Any process change or pollution prevention alternative that could be broadly applied to the industry and that was not identified or considered during development of the original MACT standards; and
- Any significant changes in the cost (including cost effectiveness) of applying controls (including controls the EPA considered during the development of the original MACT standards).

In addition to reviewing the practices, processes, and control technologies that were considered at the time we originally developed the NESHAP (i.e., the 2002 Surface Coating of Large Appliances NESHAP; the 2003 Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP; and the 2003 Surface Coating of Metal Furniture NESHAP), we reviewed a variety of data sources in our investigation of potential practices, processes, or controls that were not considered for each of the three source categories during development of the NESHAP. Among the sources we reviewed were the NESHAP for various industries that were promulgated since the MACT standards being reviewed in this action (e.g., NESHAP for Miscellaneous Metal Parts and Products (40 CFR part 63, subpart MMMM)). We also reviewed the results of other technology reviews for other surface coating source categories

since the promulgation of the NESHAP (e.g., the technology reviews conducted for the Shipbuilding and Ship Repair (Surface Coating) NESHAP (40 CFR part 63, subpart II) and the Wood Furniture Manufacturing Operations NESHAP (40 CFR part 63, subpart J)). We reviewed the regulatory requirements and/or technical analyses associated with these regulatory actions to identify any practices, processes, and control technologies considered in these efforts that could be applied to emission sources in the Surface Coating of Large Appliances source category, the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, and the Surface Coating of Metal Furniture source category, as well as the costs, non-air impacts, and energy implications associated with the use of these technologies. Finally, we reviewed information from other sources, such as state and/or local permitting agency databases and industry-sponsored market analyses and trade journals, searching for advancements in add-on controls, advancements in lower HAP technology for coatings and solvents. For a more detailed discussion of our methods for performing these technology reviews, refer to the *Large Appliances Technology Review Memo*, the *Fabrics and Other Textiles Technology Review Memo*, and the *Metal Furniture Technology Review Memo*, available respectively in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket.

#### C. How did we estimate post-MACT risks posed by these source categories?

The EPA conducted risk assessments that provide estimates of the MIR for cancer posed by the HAP emissions from each source in each source category, the HI for chronic exposures to HAP with the potential to cause noncancer health effects, and the HQ for acute exposures to HAP with the potential to cause noncancer health effects. The assessments also provide estimates of the distribution of cancer risks within the exposed populations, cancer incidence, and an evaluation of the potential for adverse environmental effects. The seven sections that follow this paragraph describe how we estimated emissions and conducted the risk assessments. The Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket contain, respectively, the *Large Appliances Risk Assessment Report*, the *Fabrics and Other Textiles Risk Assessment Report*, and the *Metal Furniture Risk Assessment Report*, which provide more information on the

<sup>7</sup> The EPA’s responses to this and all other key recommendations of the SAB’s advisory on RTR risk assessment methodologies (which is available at: [https://yosemite.epa.gov/sab/sabproduct.nsf/4AB3966E263D943A8525771F00668381/\\$File/EPA-SAB-10-007-unsigned.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/4AB3966E263D943A8525771F00668381/$File/EPA-SAB-10-007-unsigned.pdf)) are outlined in a memorandum to this rulemaking docket from David Guinnup titled *EPA’s Actions in Response to the Key Recommendations of the SAB Review of RTR Risk Assessment Methodologies*.

risk assessment inputs and models. The methods used to assess risks (as described in the seven primary steps below) are consistent with those peer-reviewed by a panel of the EPA's SAB in 2009 and described in their peer review report issued in 2010;<sup>8</sup> they are also consistent with the key recommendations contained in that report.

1. How did we estimate actual emissions and identify the emissions release characteristics?

The actual emissions and the emission release characteristics for each facility were obtained primarily from either the 2011 NEI or the 2014 NEI. Most data were obtained from the 2011 NEI, unless the 2014 NEI included HAP data for emission units or processes for which the 2011 NEI included only volatile organic compounds (VOC) or particulate matter. In some cases, the facilities were contacted to confirm emissions that appeared to be outliers, that were otherwise inconsistent with our understanding of the industry, or that were associated with high risk values in our initial risk screening analyses. When appropriate, emission values and release characteristics were corrected based on these facility contacts, and these changes were documented. Additional information on the development of the modeling file for each source category, including the development of the actual emissions and emissions release characteristics, can be found in Appendix 1 to the *Large Appliances Risk Assessment Report* in the Large Appliances Docket, Appendix 1 to the *Fabrics and Other Textiles Risk Assessment Report* in the Fabrics and Other Textiles Docket, and Appendix 1 to the *Metal Furniture Risk Assessment Report* in the Metal Furniture Docket.

2. How did we estimate MACT-allowable emissions?

The available emissions data in the RTR emissions dataset include estimates of the mass of HAP emitted during a specified annual time period. These "actual" emission levels are often lower than the emission levels allowed under the requirements of the current MACT standards. The emissions level allowed to be emitted under the MACT standards is referred to as the "MACT-allowable" emissions level. We discussed the use of both MACT-allowable and actual emissions in the final Coke Oven Batteries RTR (70 FR

19998–19999, April 15, 2005) and in the proposed and final Hazardous Organic NESHAP RTRs (71 FR 34428, June 14, 2006, and 71 FR 76609, December 21, 2006, respectively). In those actions, we noted that assessing the risks at the MACT-allowable level is inherently reasonable since these risks reflect the maximum level facilities could emit and still comply with national emission standards. We also explained that it is reasonable to consider actual emissions, where such data are available, in both steps of the risk analysis, in accordance with the Benzene NESHAP approach. (54 FR 38044, September 14, 1989.)

For the Surface Coating of Large Appliances source category, the EPA calculated allowable emissions by developing a source category-specific multiplier of 1.2 that was applied to the current emissions to estimate allowable emissions. The multiplier was calculated using annual coating sales volumes provided in the *ACA Industry Market Analysis* for appliance finishes in the years 2005 to 2014. For more information on how the EPA calculated the MACT-allowable emissions for the Surface Coating of Large Appliances source category, please see Appendix 1 to the *Large Appliances Risk Assessment Report* in the Large Appliances Docket (Docket ID No. EPA-HQ-OAR-2017-0670).

For the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, the EPA calculated allowable emissions by developing a source category-specific multiplier of 1.1 that was applied to the current emissions to estimate allowable emissions. We gathered current and historical publicly available category-specific production data from U.S. Census and based the calculation on plant capacity utilization rates for six different NAICS codes related to fabric and textile production for the years 2008 to 2016. We assumed the annual plant capacity utilization rates represented industry annual production rates. The multiplier of 1.1, or the ratio of the peak annual utilization rate in 2013 to the average annual utilization rate for the years 2008 to 2016, was applied to the actual emissions to estimate allowable emissions. For more details on how the EPA calculated the MACT-allowable emissions for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, please see Appendix 1 to the *Fabrics and Other Textiles Risk Assessment Report* in the Fabrics and Other Textiles Docket (Docket ID No. EPA-HQ-OAR-2017-0668).

For the Surface Coating of Metal Furniture source category, the EPA calculated allowable emissions by

developing a source category-specific multiplier of 1.8 that was applied to the current emissions to estimate allowable emissions. The multiplier was calculated using annual coating sales volumes from the *ACA Industry Market Analysis* for non-wood furniture, fixture, and business equipment coatings from 2005 to 2014. For more details on how the EPA calculated the MACT-allowable emissions for the Surface Coating of Metal Furniture source category, please see Appendix 1 to the *Metal Furniture Risk Assessment Report* in the Metal Furniture Docket (Docket ID No. EPA-HQ-OAR-2017-0669).

3. How did we conduct dispersion modeling, determine inhalation exposures, and estimate individual and population inhalation risks?

Both long-term and short-term inhalation exposure concentrations and health risks from the source categories addressed in this proposal were estimated using the Human Exposure Model (HEM-3). The HEM-3 performs three primary risk assessment activities: (1) Conducting dispersion modeling to estimate the concentrations of HAP in ambient air, (2) estimating long-term and short-term inhalation exposures to individuals residing within 50 kilometers (km) of the modeled sources, and (3) estimating individual and population-level inhalation risks using the exposure estimates and quantitative dose-response information.

a. Dispersion Modeling

The air dispersion model AERMOD, used by the HEM-3 model, is one of the EPA's preferred models for assessing air pollutant concentrations from industrial facilities.<sup>9</sup> To perform the dispersion modeling and to develop the preliminary risk estimates, HEM-3 draws on three data libraries. The first is a library of meteorological data, which is used for dispersion calculations. This library includes one year (2016) of hourly surface and upper air observations from 824 meteorological stations, selected to provide coverage of the U.S. and Puerto Rico. A second library of U.S. Census Bureau census block<sup>10</sup> internal point locations and populations provides the basis of human exposure calculations (U.S. Census, 2010). In addition, for each census block, the census library

<sup>9</sup> U.S. EPA. Revision to the *Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions* (70 FR 68218, November 9, 2005).

<sup>10</sup> A census block is the smallest geographic area for which census statistics are tabulated.

<sup>8</sup> U.S. EPA SAB. *Risk and Technology Review (RTR) Risk Assessment Methodologies: For Review by the EPA's Science Advisory Board with Case Studies—MACT I Petroleum Refining Sources and Portland Cement Manufacturing*, May 2010.

includes the elevation and controlling hill height, which are also used in dispersion calculations. A third library of pollutant-specific dose-response values is used to estimate health risks. These dose-response values are the latest values recommended by the EPA for HAP. They are available at <https://www.epa.gov/fera/dose-response-assessment-assessing-health-risks-associated-exposure-hazardous-air-pollutants> and are discussed in more detail later in this section.

#### b. Risk From Chronic Exposure to HAP That May Cause Cancer

In developing the risk assessment for chronic exposures, we used the estimated annual average ambient air concentrations of each HAP emitted by each source for which we have emissions data in the source categories. The air concentrations at each nearby census block centroid were used as a surrogate for the chronic inhalation exposure concentration for all the people who reside in that census block. We calculated the MIR for each facility as the cancer risk associated with a continuous lifetime (24 hours per day, seven days per week, 52 weeks per year, for a 70-year period) exposure to the maximum concentration at the centroid of inhabited census blocks. Individual cancer risks were calculated by multiplying the estimated lifetime exposure to the ambient concentration of each HAP (in micrograms per cubic meter) by its unit risk estimate (URE). The URE is an upper bound estimate of an individual's probability of contracting cancer over a lifetime of exposure to a concentration of one microgram of the pollutant per cubic meter of air. For residual risk assessments, we generally use UREs from the EPA's Integrated Risk Information System (IRIS). For carcinogenic pollutants without IRIS values, we look to other reputable sources of cancer dose-response values, often using California EPA (CalEPA) UREs, where available. In cases where new, scientifically credible dose-response values have been developed in a manner consistent with the EPA guidelines and have undergone a peer review process similar to that used by the EPA, we may use such dose-response values in place of, or in addition to, other values, if appropriate.

To estimate incremental individual lifetime cancer risks associated with emissions from the facilities in the source categories, the EPA summed the risks for each of the carcinogenic HAP <sup>11</sup>

<sup>11</sup> The EPA classifies carcinogens as: Carcinogenic to humans, likely to be carcinogenic

emitted by the modeled sources. Cancer incidence and the distribution of individual cancer risks for the population within 50 km of the sources were also estimated for the source category by summing individual risks. A distance of 50 km is consistent with both the analysis supporting the 1989 Benzene NESHAP (54 FR 38044, September 14, 1989) and the limitations of Gaussian dispersion models, including AERMOD.

#### c. Risk From Chronic Exposure to HAP That May Cause Health Effects Other Than Cancer

To assess the risk of noncancer health effects from chronic exposure to HAP, we calculate either an HQ or a target organ-specific hazard index (TOSHI). We calculate an HQ when a single noncancer HAP is emitted. Where more than one noncancer HAP is emitted, we sum the HQ for each of the HAP that affects a common target organ system to obtain a TOSHI. The HQ is the estimated exposure divided by the chronic noncancer dose-response value, which is a value selected from one of several sources. The preferred chronic noncancer dose-response value is the EPA RfC ([https://iaspub.epa.gov/sor\\_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=IRIS%20Glossary](https://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=IRIS%20Glossary)), defined as "an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime." In cases where an RfC from the EPA's IRIS database is not available or where the EPA determines that using a value other than the RfC is appropriate, the chronic noncancer dose-response value can be a value from the following prioritized sources, which

to humans, and suggestive evidence of carcinogenic potential. These classifications also coincide with the terms "known carcinogen, probable carcinogen, and possible carcinogen," respectively, which are the terms advocated in the EPA's *Guidelines for Carcinogen Risk Assessment*, published in 1986 (51 FR 33992, September 24, 1986). In August 2000, the document, *Supplemental Guidance for Conducting Health Risk Assessment of Chemical Mixtures* (EPA/630/R-00/002), was published as a supplement to the 1986 document. Copies of both documents can be obtained from <https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=20533&CFID=70315376&CFTOKEN=71597944>. Summing the risks of these individual compounds to obtain the cumulative cancer risks is an approach that was recommended by the EPA's SAB in their 2002 peer review of the EPA's National Air Toxics Assessment (NATA) titled *NATA—Evaluating the National-scale Air Toxics Assessment 1996 Data—an SAB Advisory*, available at [https://yosemite.epa.gov/sab/sabproduct.nsf/214C6E915BB04E14852570CA007A682C/\\$File/ecadv02001.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/214C6E915BB04E14852570CA007A682C/$File/ecadv02001.pdf).

define their dose-response values similarly to EPA: (1) The Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Level (<https://www.atsdr.cdc.gov/mrls/index.asp>); (2) the CalEPA Chronic Reference Exposure Level (REL) (<https://oehha.ca.gov/air/crnrr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>); or (3), as noted above, a scientifically credible dose-response value that has been developed in a manner consistent with the EPA guidelines and has undergone a peer review process similar to that used by the EPA.

#### d. Risk From Acute Exposure to HAP That May Cause Health Effects Other Than Cancer

For each HAP for which appropriate acute inhalation dose-response values are available, the EPA also assesses the potential health risks due to acute exposure. For these assessments, the EPA makes conservative assumptions about emission rates, meteorology, and exposure location. We use the peak hourly emission rate (when available),<sup>12</sup> worst-case dispersion conditions, and, in accordance with our mandate under section 112 of the CAA, the point of highest off-site exposure to assess the potential risk to the maximally exposed individual.

To characterize the potential health risks associated with estimated acute inhalation exposures to a HAP, we generally use multiple acute dose-response values, including acute RELs, acute exposure guideline levels (AEGs), and emergency response planning guidelines (ERPG) for 1-hour exposure durations, if available, to calculate acute HQs. The acute HQ is calculated by dividing the estimated acute exposure by the acute dose-response value. For each HAP for which acute dose-response values are available, the EPA calculates acute HQs.

An acute REL is defined as "the concentration level at or below which no adverse health effects are anticipated

<sup>12</sup> In the absence of hourly emission data, we develop estimates of maximum hourly emission rates by multiplying the average actual annual emissions rates by a factor (either a category-specific factor or a default factor of 10) and dividing by the total number of hours in a year (8,760 hours) to account for variability. This is documented in *Large Appliances Risk Assessment Report, Fabrics and Other Textiles Risk Assessment Report, and Metal Furniture Risk Assessment Report* and in Appendix 5 of the report: *Analysis of Data on Short-term Emission Rates Relative to Long-term Emission Rates*. These documents are available in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket.

for a specified exposure duration.”<sup>13</sup> Acute RELs are based on the most sensitive, relevant, adverse health effect reported in the peer-reviewed medical and toxicological literature. They are designed to protect the most sensitive individuals in the population through the inclusion of margins of safety. Because margins of safety are incorporated to address data gaps and uncertainties, exceeding the REL does not automatically indicate an adverse health impact. AEGLs represent threshold exposure limits for the general public and are applicable to emergency exposures ranging from ten minutes to eight hours.<sup>14</sup> They are guideline levels for “once-in-a-lifetime, short-term exposures to airborne concentrations of acutely toxic, high-priority chemicals.” *Id.* at 21. The AEGL-1 is specifically defined as “the airborne concentration (expressed as ppm (parts per million) or mg/m<sup>3</sup> (milligrams per cubic meter)) of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic nonsensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.” The document also notes that “Airborne concentrations below AEGL-1 represent exposure levels that can produce mild and progressively increasing but transient and non-disabling odor, taste, and sensory irritation or certain asymptomatic, nonsensory effects.” *Id.* AEGL-2 are defined as “the airborne concentration (expressed as parts per million or milligrams per cubic meter) of a substance above which it is predicted that the general population, including susceptible individuals, could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.” *Id.*

ERPGs are “developed for emergency planning and are intended as health-based guideline concentrations for

single exposures to chemicals.”<sup>15</sup> *Id.* at 1. The ERPG-1 is defined as “the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour without experiencing other than mild transient adverse health effects or without perceiving a clearly defined, objectionable odor.” *Id.* at 2. Similarly, the ERPG-2 is defined as “the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual’s ability to take protective action.” *Id.* at 1.

An acute REL for 1-hour exposure durations is typically lower than its corresponding AEGL-1 and ERPG-1. Even though their definitions are slightly different, AEGL-1s are often the same as the corresponding ERPG-1s, and AEGL-2s are often equal to ERPG-2s. The maximum HQs from our acute inhalation screening risk assessment typically result when we use the acute REL for a HAP. In cases where the maximum acute HQ exceeds 1, we also report the HQ based on the next highest acute dose-response value (usually the AEGL-1 and/or the ERPG-1).

For these source categories, we did not have short term emissions data; therefore, we developed source category-specific factors based on information about each industry. We request comment on our assumptions regarding hour-to-hour variation in emissions and our methods of calculating the multiplier for estimating the peak 1-hour emissions for each source category and any additional information that could help refine our approach.

For the Surface Coating of Large Appliances source category, we do not expect to see substantial hour-to-hour variation in emissions during routine operations because the industry employs the use of compliant low HAP coatings in a continuous (non-batch) coating process. Thus, applying the default emission factor of ten to estimate the worst-case hourly emission rate is not reasonable for this category. We expect that minimal variations in emissions could possibly occur due to cleaning of process equipment during

routine operations for coating operations using the emission rate without add-on controls compliance option. We calculated worst-case hourly emissions by developing a source category-specific multiplier of 1.2 that was applied to the annual emissions, which were then divided by the total number of hours in a year (8,760 hours). The multiplier was based on historical data on coating sales volumes from the *ACA Industry Market Analysis* for appliance finishes 2005 to 2014. The multiplier was the ratio of the peak coating sales volume (in gallons) in 2006 to the average sales volume for the years 2005 to 2014. The peak coating sales volume in 2006 was assumed to represent the maximum utilization of the current large appliance surface coating industry. A further discussion of why this factor was chosen can be found in Appendix 1 to the *Large Appliances Risk Assessment Report* in the Large Appliances Docket.

For the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, we do not expect to see substantial hour-to-hour variation in emissions during routine operations because the industry employs the use of various compliance options, including add-on controls, compliant low HAP coatings, or emission rate without add-on controls option, in a continuous (non-batch) coating process that achieve consistent emission rates. Thus, applying the default emission factor of ten to estimate the worst-case hourly emission rate is not reasonable for this category. We expect that minimal variations in emissions could possibly occur during routine operations due to cleaning of process equipment. We calculated acute emissions by developing a source category-specific multiplier of 1.4 that was applied to the annual emissions, which were then divided by the total number of hours in a year (8,760 hours). The multiplier was based on historical U.S. Census data on plant capacity utilization rates for six different NAICS codes related to fabric and textile production for the years 2008 to 2016. The multiplier was the ratio of the maximum utilization rate (100 percent) to the peak utilization rate of 71.7 percent for the years 2008 to 2016. A further discussion of why this factor was chosen can be found in Appendix 1 to the *Fabrics and Other Textiles Risk Assessment Report* in the Fabrics and Other Textiles Docket.

For the Surface Coating of Metal Furniture source category, we do not expect to see substantial hour-to-hour variation in emissions during routine operations because the industry employs the use of compliant low HAP

<sup>13</sup> CalEPA issues acute RELs as part of its Air Toxics Hot Spots Program, and the 1-hour and 8-hour values are documented in *Air Toxics Hot Spots Program Risk Assessment Guidelines, Part I, The Determination of Acute Reference Exposure Levels for Airborne Toxicants*, which is available at <https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary>.

<sup>14</sup> National Academy of Sciences, 2001. *Standing Operating Procedures for Developing Acute Exposure Levels for Hazardous Chemicals*, page 2. Available at [https://www.epa.gov/sites/production/files/2015-09/documents/sop\\_final\\_standing\\_operating\\_procedures\\_2001.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/sop_final_standing_operating_procedures_2001.pdf). Note that the National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances ended in October 2011, but the AEGL program continues to operate at the EPA and works with the National Academies to publish final AEGLs. (<https://www.epa.gov/aegl>).

<sup>15</sup> *ERPGS Procedures and Responsibilities*. March 2014. American Industrial Hygiene Association. Available at: <https://www.aiha.org/get-involved/AIHAGuidelineFoundation/EmergencyResponsePlanningGuidelines/Documents/ERPG%20Committee%20Standard%20Operating%20Procedures%2020-%20March%202014%20Revision%20%28Updated%2010-2-2014%29.pdf>.

coatings in a continuous (non-batch) coating process. Thus, applying the default emission factor of ten to estimate the worst-case hourly emission rate is not reasonable for this category. We expect that minimal variations in emissions could possibly occur due to cleaning of process equipment during routine operations for coating operations using the emission rate without add-on controls compliance option. We calculated worst-case hourly emissions by developing a source category-specific multiplier of 1.8 that was applied to the annual emissions, which were then divided by the total number of hours in a year (8,760 hours). The multiplier was based on historical data on coating sales volumes from the *ACA Industry Market Analysis* for non-wood furniture, fixture and business equipment coatings from 2005 to 2014. The multiplier was the ratio of the peak coating sales volume (in gallons) in 2005 to the average sales volume for the years 2005 to 2014. The peak sales volume in 2005 was assumed to represent maximum utilization of the current metal furniture surface coating industry. A further discussion of why this factor was chosen can be found in Appendix 1 to the *Metal Furniture Risk Assessment Report* in the Metal Furniture Docket.

In our acute inhalation screening risk assessment, acute impacts are deemed negligible for HAP where acute HQs are less than or equal to one (even under the conservative assumptions of the screening assessment), and no further analysis is performed for these HAP. In cases where an acute HQ from the screening step is greater than 1, we consider additional site-specific data to develop a more refined estimate of the potential for acute impacts of concern. For all three source categories, the acute data refinements employed consisted of plotting the HEM-3 polar grid results for each HAP with an acute HQ value greater than one on aerial photographs of the facilities. We then assessed whether the highest acute HQs were off-site and at locations that may be accessible to the public (e.g., roadways and public buildings). These refinements are discussed more fully in the *Large Appliances Risk Assessment Report*, the *Fabrics and Other Textiles Risk Assessment Report*, and the *Metal Furniture Risk Assessment Report*, available respectively in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket.

4. How did we conduct the multipathway exposure and risk screening assessment?

The EPA conducted a tiered screening assessment examining the potential for significant human health risks due to exposures via routes other than inhalation (i.e., ingestion). We first determined whether any sources in the source categories emitted any HAP known to be persistent and bioaccumulative in the environment (PB-HAP), as identified in the EPA's Air Toxics Risk Assessment Library (See Volume 1, Appendix D, at <https://www2.epa.gov/fera/risk-assessment-and-modeling-air-toxics-risk-assessment-reference-library>).

For the Surface Coating of Large Appliances; the Printing, Coating, and Dyeing of Fabrics and Other Textiles; and Surface Coating of Metal Furniture source categories, we did not identify emissions of any PB-HAP. Because we did not identify PB-HAP emissions, no further evaluation of multipathway risk was conducted for these source categories.

5. How did we conduct the environmental risk screening assessment?

a. Adverse Environmental Effects, Environmental HAP, and Ecological Benchmarks

The EPA conducts a screening assessment to examine the potential for adverse environmental effects as required under section 112(f)(2)(A) of the CAA. Section 112(a)(7) of the CAA defines "adverse environmental effect" as "any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas."

The EPA focuses on eight HAP, which are referred to as "environmental HAP," in its screening assessment: Six PB-HAP and two acid gases. The PB-HAP included in the screening assessment are arsenic compounds, cadmium compounds, dioxins/furans, polycyclic organic matter, mercury (both inorganic mercury and methyl mercury), and lead compounds. The acid gases included in the screening assessment are HCl and hydrogen fluoride (HF).

HAP that persist and bioaccumulate are of particular environmental concern because they accumulate in the soil, sediment, and water. The acid gases, HCl and HF, were included due to their well-documented potential to cause

direct damage to terrestrial plants. In the environmental risk screening assessment, we evaluate the following four exposure media: Terrestrial soils, surface water bodies (includes water-column and benthic sediments), fish consumed by wildlife, and air. Within these four exposure media, we evaluate nine ecological assessment endpoints, which are defined by the ecological entity and its attributes. For PB-HAP (other than lead), both community-level and population-level endpoints are included. For acid gases, the ecological assessment evaluated is terrestrial plant communities.

An ecological benchmark represents a concentration of HAP that has been linked to a particular environmental effect level. For each environmental HAP, we identified the available ecological benchmarks for each assessment endpoint. We identified, where possible, ecological benchmarks at the following effect levels: Probable effect levels, lowest-observed-adverse-effect level, and no-observed-adverse-effect level. In cases where multiple effect levels were available for a particular PB-HAP and assessment endpoint, we use all of the available effect levels to help us to determine whether ecological risks exist and, if so, whether the risks could be considered significant and widespread.

For further information on how the environmental risk screening assessment was conducted, including a discussion of the risk metrics used, how the environmental HAP were identified, and how the ecological benchmarks were selected, see Appendix 9 of the *Large Appliances Risk Assessment Report*, the *Fabrics and Other Textiles Risk Assessment Report*, and the *Metal Furniture Risk Assessment Report*, in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket, respectively.

b. Environmental Risk Screening Methodology

For the environmental risk screening assessment, the EPA first determined whether any facilities in the Surface Coating of Large Appliances; Printing, Coating, and Dyeing of Fabrics and Other Textiles; and Surface Coating of Metal Furniture source categories emitted any of the environmental HAP. For the Surface Coating of Large Appliances source category, we identified emissions of HCl and HF. No environmental HAP were emitted from the other two source categories.

Because one or more of the environmental HAP evaluated are emitted by at least one facility in the Surface Coating of Large Appliances

source category, we proceeded to the second step of the evaluation for that source category.

### c. Acid Gas Environmental Risk Methodology

The environmental screening assessment for acid gases evaluates the potential phytotoxicity and reduced productivity of plants due to chronic exposure to HCl and HF. The environmental risk screening methodology for acid gases is a single-tier screening assessment that compares modeled ambient air concentrations (from AERMOD) to the ecological benchmarks for each acid gas. To identify potential adverse environmental effects (as defined in section 112(a)(7) of the CAA) from emissions of HCl and HF, we evaluate the following metrics: The size of the modeled area around each facility that exceeds the ecological benchmark for each acid gas, in acres and km<sup>2</sup>; the percentage of the modeled area around each facility that exceeds the ecological benchmark for each acid gas; and the area-weighted average screening value around each facility (calculated by dividing the area-weighted average concentration over the 50-km modeling domain by the ecological benchmark for each acid gas). For further information on the environmental screening assessment approach, see Appendix 9 of the *Large Appliances Risk Assessment Report* in the Large Appliances Docket.

### 6. How did we conduct facility-wide assessments?

To put the source category risks in context, we typically examine the risks from the entire “facility,” where the facility includes all HAP-emitting operations within a contiguous area and under common control. In other words, we examine the HAP emissions not only from the source category emission points of interest, but also emissions of HAP from all other emission sources at the facility for which we have data. For this source category, we conducted the facility-wide assessment using a dataset compiled from the 2014 NEI. The source category records of that NEI dataset were removed, evaluated, and updated as described in section II.C of this preamble: “What data collection activities were conducted to support this action?” Once a quality assured source category dataset was available, it was placed back with the remaining records from the NEI for that facility. The facility-wide file was then used to analyze risks due to the inhalation of HAP that are emitted “facility-wide” for the populations residing within 50 km of each facility, consistent with the

methods used for the source category analysis described above. For these facility-wide risk analyses, the modeled source category risks were compared to the facility-wide risks to determine the portion of the facility-wide risks that could be attributed to the source categories addressed in this proposal. We also specifically examined the facility that was associated with the highest estimate of risk and determined the percentage of that risk attributable to the source category of interest. The *Large Appliances Risk Assessment Report*, the *Fabrics and Other Textiles Risk Assessment Report*, and the *Metal Furniture Risk Assessment Report*, available respectively in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket, provide the methodology and results of the facility-wide analyses, including all facility-wide risks and the percentage of source category contribution to facility-wide risks.

### 7. How did we consider uncertainties in risk assessment?

Uncertainty and the potential for bias are inherent in all risk assessments, including those performed for this proposal. Although uncertainty exists, we believe that our approach, which used conservative tools and assumptions, ensures that our decisions are health and environmentally protective. A brief discussion of the uncertainties in the RTR emissions datasets, dispersion modeling, inhalation exposure estimates, and dose-response relationships follows below. Also included are those uncertainties specific to our acute screening assessments, multipathway screening assessments, and our environmental risk screening assessments. A more thorough discussion of these uncertainties is included in the *Large Appliances Risk Assessment Report*, the *Fabrics and Other Textiles Risk Assessment Report*, and the *Metal Furniture Risk Assessment Report*, available respectively in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket. If a multipathway site-specific assessment was performed for this source category, a full discussion of the uncertainties associated with that assessment can be found in Appendix 11 of that document, *Site-Specific Human Health Multipathway Residual Risk Assessment Report*.

### a. Uncertainties in the RTR Emissions Datasets

Although the development of the RTR emissions datasets involved quality

assurance/quality control processes, the accuracy of emissions values will vary depending on the source of the data, the degree to which data are incomplete or missing, the degree to which assumptions made to complete the datasets are accurate, errors in emission estimates, and other factors. The emission estimates considered in this analysis generally are annual totals for certain years, and they do not reflect short-term fluctuations during the course of a year or variations from year to year. The estimates of peak hourly emission rates for the acute effects screening assessment were based on an emission adjustment factor applied to the average annual hourly emission rates, which are intended to account for emission fluctuations due to normal facility operations.

### b. Uncertainties in Dispersion Modeling

We recognize there is uncertainty in ambient concentration estimates associated with any model, including the EPA’s recommended regulatory dispersion model, AERMOD. In using a model to estimate ambient pollutant concentrations, the user chooses certain options to apply. For RTR assessments, we select some model options that have the potential to overestimate ambient air concentrations (e.g., not including plume depletion or pollutant transformation). We select other model options that have the potential to underestimate ambient impacts (e.g., not including building downwash). Other options that we select have the potential to either under- or overestimate ambient levels (e.g., meteorology and receptor locations). On balance, considering the directional nature of the uncertainties commonly present in ambient concentrations estimated by dispersion models, the approach we apply in the RTR assessments should yield unbiased estimates of ambient HAP concentrations. We also note that the selection of meteorology dataset location could have an impact on the risk estimates. As we continue to update and expand our library of meteorological station data used in our risk assessments, we expect to reduce this variability.

### c. Uncertainties in Inhalation Exposure Assessment

Although every effort is made to identify all of the relevant facilities and emission points, as well as to develop accurate estimates of the annual emission rates for all relevant HAP, the uncertainties in our emission inventory likely dominate the uncertainties in the exposure assessment. Some uncertainties in our exposure

assessment include human mobility, using the centroid of each census block, assuming lifetime exposure, and assuming only outdoor exposures. For most of these factors, there is neither an under nor overestimate when looking at the maximum individual risks or the incidence, but the shape of the distribution of risks may be affected. With respect to outdoor exposures, actual exposures may not be as high if people spend time indoors, especially for very reactive pollutants or larger particles. For all factors, we reduce uncertainty when possible. For example, with respect to census-block centroids, we analyze large blocks using aerial imagery and adjust locations of the block centroids to better represent the population in the blocks. We also add additional receptor locations where the population of a block is not well represented by a single location.

#### d. Uncertainties in Dose-Response Relationships

There are uncertainties inherent in the development of the dose-response values used in our risk assessments for cancer effects from chronic exposures and noncancer effects from both chronic and acute exposures. Some uncertainties are generally expressed quantitatively, and others are generally expressed in qualitative terms. We note, as a preface to this discussion, a point on dose-response uncertainty that is stated in the EPA's *2005 Cancer Guidelines*<sup>16</sup>; namely, that "the primary goal of EPA actions is protection of human health; accordingly, as an Agency policy, risk assessment procedures, including default options that are used in the absence of scientific data to the contrary, should be health protective" (EPA's *2005 Cancer Guidelines*, pages 1–7). This is the approach followed here as summarized in the next paragraphs.

Cancer UREs used in our risk assessments are those that have been developed to generally provide an upper bound estimate of risk. That is, they represent a "plausible upper limit to the true value of a quantity" (although this is usually not a true statistical confidence limit).<sup>17</sup> In some circumstances, the true risk could be as low as zero; however, in other circumstances the risk could be

greater.<sup>18</sup> Chronic noncancer RfC and reference dose (RfD) values represent chronic exposure levels that are intended to be health-protective levels. To derive dose-response values that are intended to be "without appreciable risk," the methodology relies upon an uncertainty factor (UF) approach<sup>19</sup> which considers uncertainty, variability, and gaps in the available data. The UFs are applied to derive dose-response values that are intended to protect against appreciable risk of deleterious effects.

Many of the UFs used to account for variability and uncertainty in the development of acute dose-response values are quite similar to those developed for chronic durations. Additional adjustments are often applied to account for uncertainty in extrapolation from observations at one exposure duration (e.g., 4 hours) to derive an acute dose-response value at another exposure duration (e.g., one hour). Not all acute dose-response values are developed for the same purpose, and care must be taken when interpreting the results of an acute assessment of human health effects relative to the dose-response value or values being exceeded. Where relevant to the estimated exposures, the lack of acute dose-response values at different levels of severity should be factored into the risk characterization as potential uncertainties.

Uncertainty also exists in the selection of ecological benchmarks for the environmental risk screening assessment. We established a hierarchy of preferred benchmark sources to allow selection of benchmarks for each environmental HAP at each ecological assessment endpoint. We searched for benchmarks for three effect levels (i.e., no-effects level, threshold-effect level, and probable-effect level) but not all combinations of ecological assessment/environmental HAP had benchmarks for all three effect levels. Where multiple effect levels were available for a particular HAP and assessment endpoint, we used all of the available effect levels to help us determine

whether risk exists and whether the risk could be considered significant and widespread.

Although every effort is made to identify appropriate human health effect dose-response values for all pollutants emitted by the sources in this risk assessment, some HAP emitted by this source category are lacking dose-response assessments. Accordingly, these pollutants cannot be included in the quantitative risk assessment, which could result in quantitative estimates understating HAP risk. To help to alleviate this potential underestimate, where we conclude similarity with a HAP for which a dose-response value is available, we use that value as a surrogate for the assessment of the HAP for which no value is available. To the extent use of surrogates indicates appreciable risk, we may identify a need to increase priority for an IRIS assessment for that substance. We additionally note that, generally speaking, HAP of greatest concern due to environmental exposures and hazard are those for which dose-response assessments have been performed, reducing the likelihood of understating risk. Further, HAP not included in the quantitative assessment are assessed qualitatively and considered in the risk characterization that informs the risk management decisions, including consideration of HAP reductions achieved by various control options.

For a group of compounds that are unspiciated (e.g., glycol ethers), we conservatively use the most protective dose-response value of an individual compound in that group to estimate risk. Similarly, for an individual compound in a group (e.g., ethylene glycol diethyl ether) that does not have a specified dose-response value, we also apply the most protective dose-response value from the other compounds in the group to estimate risk.

#### e. Uncertainties in Acute Inhalation Screening Assessments

In addition to the uncertainties highlighted above, there are several factors specific to the acute exposure assessment that the EPA conducts as part of the risk review under section 112 of the CAA. The accuracy of an acute inhalation exposure assessment depends on the simultaneous occurrence of independent factors that may vary greatly, such as hourly emissions rates, meteorology, and the presence of humans at the location of the maximum concentration. In the acute screening assessment that we conduct under the RTR program, we assume that peak emissions from the source category and worst-case

<sup>18</sup> An exception to this is the URE for benzene, which is considered to cover a range of values, each end of which is considered to be equally plausible, and which is based on maximum likelihood estimates.

<sup>19</sup> U.S. EPA, 1993. Reference Dose (RfC); Description and Use in Health Risk Assessments. (<https://www.epa.gov/iris/reference-dose-rfd-description-and-use-health-risk-assessments>). U.S. EPA, 1994b. Methods for Derivation of Inhalation Reference Concentrations and Application of Inhalation Dosimetry. (<https://www.epa.gov/risk/methods-derivation-inhalation-reference-concentrations-and-application-inhalation-dosimetry>).

<sup>16</sup> *Guidelines for Carcinogen Risk Assessment*, EPA/630/P-03/001F, March 2005. (<https://www.epa.gov/risk/guidelines-carcinogen-risk-assessment>).

<sup>17</sup> IRIS glossary ([https://ofmpub.epa.gov/sor\\_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&glossaryName=IRIS%20Glossary](https://ofmpub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&glossaryName=IRIS%20Glossary)).



meteorological conditions co-occur, thus resulting in maximum ambient concentrations. These two events are unlikely to occur at the same time, making these assumptions conservative. We then include the additional assumption that a person is located at this point during this same time period. For these source categories, these assumptions would tend to be worst-case actual exposures as it is unlikely that a person would be located at the point of maximum exposure during the time when peak emissions and worst-case meteorological conditions occur simultaneously.

f. Uncertainties in the Multipathway and Environmental Risk Screening Assessments

For each source category, we generally rely on site-specific levels of PB-HAP or environmental HAP emissions to determine whether a refined assessment of the impacts from multipathway exposures is necessary or whether it is necessary to perform an environmental screening assessment. None of the three source categories in this action emit PB-HAP, therefore, multipathway assessments were not conducted. Since no environmental HAP are emitted from the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category or the Surface Coating of Metal Furniture source category, an environmental risk screen was not conducted for these categories. Small amounts of the

environmental HAP, HCl, and HF are emitted from the Surface Coating of Large Appliances source category, therefore, an environmental risk screen was conducted.

The environmental screening assessment relies on the outputs from AERMOD—that estimates environmental pollutant concentrations for two acid gases (HCl and HF). Two important types of uncertainty associated with the use of these models in RTR risk assessments and inherent to any assessment that relies on environmental modeling are model uncertainty and input uncertainty.<sup>20</sup> Model uncertainty concerns whether the model adequately represents the actual processes (e.g., movement and accumulation) that might occur in the environment. For example, does the model adequately describe the movement of a pollutant through the soil? This type of uncertainty is difficult to quantify. However, based on feedback received from previous EPA SAB reviews and other reviews, we are confident that the models used in the screening assessments are appropriate and state-of-the-art for the environmental screening risk assessment conducted in support of RTR.

Input uncertainty is concerned with how accurately the models have been configured and parameterized for the assessment at hand. For the environmental screening assessment for acid gases, we employ a single-tiered

approach. We use the modeled air concentrations and compare those with ecological benchmarks.

IV. Analytical Results and Proposed Decisions

A. What are the analytical results and proposed decisions for the Surface Coating of Large Appliances source category?

1. What are the results of the risk assessment and analyses?

As described in section III of this preamble, for the Surface Coating of Large Appliances source category, we conducted a risk assessment for all HAP emitted. We present results of the risk assessment briefly below and in more detail in the *Large Appliances Risk Assessment Report* in the Large Appliances Docket (Docket ID No. EPA-HQ-OAR-2017-0670).

a. Inhalation Risk Assessment Results

Table 2 of this preamble provides a summary of the results of the inhalation risk assessment for the source category. As discussed in section III.C.2 of this preamble, we set MACT-allowable HAP emission levels at large appliance coating facilities equal to 1.2 times actual emissions. For more detail about the MACT-allowable emission levels, see Appendix 1 to the *Large Appliances Risk Assessment Report* in the Large Appliances Docket.

TABLE 2—SURFACE COATING OF LARGE APPLIANCES SOURCE CATEGORY INHALATION RISK ASSESSMENT RESULTS

Risk assessment	Maximum individual cancer risk (in 1 million)		Estimated population at increased risk of cancer ≥ 1-in-1 million		Estimated annual cancer incidence (cases per year)		Maximum chronic noncancer TOSHI <sup>1</sup>		Maximum screening acute noncancer HQ <sup>2</sup>
	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions
Source Category .....	0.9	1	0	50	0.0001	0.0002	0.07	0.08	HQREL = 2
Whole Facility .....	6	.....	600	.....	0.0002	.....	0.2	.....	

<sup>1</sup> The target organ specific hazard index (TOSHI) is the sum of the chronic noncancer hazard quotients for substances that affect the same target organ or organ system.

<sup>2</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop HQ values.

The results of the inhalation risk modeling using actual emissions data, as shown in Table 2 of this preamble, indicate that the maximum individual cancer risk based on actual emissions (lifetime) could be up to 0.9-in-1 million, the maximum chronic noncancer TOSHI value based on actual emissions could be up to 0.07, and the

maximum screening acute noncancer HQ value (off-facility site) could be up to 2. The total estimated annual cancer incidence (national) from these facilities based on actual emission levels is 0.0001 excess cancer cases per year, or one case in every 10,000 years.

b. Acute Risk Results

Table 2 of this preamble shows the acute risk results for the Surface Coating of Large Appliances source category. The screening analysis for acute impacts was based on an industry specific multiplier of 1.2, to estimate the peak emission rates from the average rates. For more detailed acute risk results,

<sup>20</sup> In the context of this discussion, the term “uncertainty” as it pertains to exposure and risk encompasses both *variability* in the range of

expected inputs and screening results due to existing spatial, temporal, and other factors, as well

as *uncertainty* in being able to accurately estimate the true result.

refer to the *Large Appliances Risk Assessment Report* in the Large Appliances Docket.

#### c. Multipathway Risk Screening Results

There are no PB-HAP emitted by facilities in the Surface Coating of Large Appliances source category. Therefore, we do not expect any human health multipathway risks as a result of emissions from this source category.

#### d. Environmental Risk Screening Results

The emissions data for the Surface Coating of Large Appliances source category indicate that two environmental HAP are emitted by sources within this source category: HCl and HF. Therefore, we conducted a screening-level evaluation of the potential adverse environmental risks associated with emissions of HCl and HF for the Surface Coating of Large Appliances source category. For both HCl and HF, each individual concentration (*i.e.*, each off-site data point in the modeling domain) was below the ecological benchmarks for all facilities. Therefore, we do not expect an adverse environmental effect as a result of HAP emissions from this source category.

#### e. Facility-Wide Risk Results

One facility has a facility-wide cancer MIR greater than or equal to 1-in-1 million. The maximum facility-wide cancer MIR is 6-in-1 million, driven by chromium (VI) compounds from a cleaning/pre-treatment operation. The total estimated cancer incidence from the whole facility is 0.0002 excess cancer cases per year, or one excess case in every 5,000 years. Approximately 600 people were estimated to have cancer risks above 1-in-1 million from exposure to HAP emitted from both MACT and non-MACT sources of the ten facilities in this source category. The maximum facility-wide TOSHI for the source category is estimated to be 0.2, driven by emissions of methylene diphenyl diisocyanate from foam produced as part of plastic products manufacturing.

#### f. What demographic groups might benefit from this regulation?

To examine the potential for any environmental justice issues that might be associated with the source category, we performed a demographic analysis, which is an assessment of risks to individual demographic groups of the populations living within 5 km and within 50 km of the facilities. In the analysis, we evaluated the distribution of HAP-related cancer and noncancer risks from the Surface Coating of Large

Appliances source category across different demographic groups within the populations living near facilities.<sup>21</sup>

Results of the demographic analysis indicate that, for two of the 11 demographic groups, “African American” and “Below the Poverty Level,” the percentage of the population living within 5 km of facilities in the source category is greater than the corresponding national percentage for the same demographic groups. When examining the risk levels of those exposed to emissions from large appliance coating facilities, we find that no one is exposed to a cancer risk at or above 1-in-1 million or to a chronic noncancer hazard index greater than one based on actual emissions from the source category.

The methodology and the results of the demographic analysis are presented in a technical report titled *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Surface Coating of Large Appliances Source Category Operations*, September 2017 (hereafter referred to as the *Large Appliances Demographic Analysis Report*) in the Large Appliances Docket.

2. What are our proposed decisions regarding risk acceptability, ample margin of safety, and adverse environmental effects?

#### a. Risk Acceptability

As noted in section III.A of this preamble, we weigh all health risk factors in our risk acceptability determination, including the cancer MIR, the number of persons in various cancer and noncancer risk ranges, cancer incidence, the maximum noncancer TOSHI, the maximum acute noncancer HQ, the extent of noncancer risks, the distribution of cancer and noncancer risks in the exposed population, and risk estimation uncertainties (54 FR 38044, September 14, 1989).

For the Surface Coating of Large Appliances source category, the risk analysis indicates that the cancer risks to the individual most exposed could be up to 0.9-in-1 million due to actual emissions and up to 1-in-1 million based on allowable emissions. These risks are considerably less than 100-in-1 million, which is the presumptive upper limit of acceptable risk. The risk

analysis also shows very low cancer incidence (0.0001 cases per year for actual emissions and 0.0002 cases per year for allowable emissions), and we did not identify potential for adverse chronic noncancer health effects. The acute noncancer risks based on actual emissions are low at an HQ of 2 for glycol ethers at one facility. Therefore, we find there is little potential concern of acute noncancer health impacts from actual emissions. In addition, the risk assessment indicates no significant potential for multipathway health effects.

Considering all of the health risk information and factors discussed above, including the uncertainties discussed in section III.C.7 of this preamble, we propose to find that the risks from the Surface Coating of Large Appliances source category are acceptable.

#### b. Ample Margin of Safety Analysis

Although we are proposing that the risks from the Surface Coating of Large Appliances source category are acceptable, risk estimates for approximately 50 individuals in the exposed population are above 1-in-1 million at the allowable emissions level. Consequently, we further considered whether the MACT standards for the Surface Coating of Large Appliances source category provide an ample margin of safety to protect public health. In this ample margin of safety analysis, we investigated available emissions control options that might reduce the risk from the source category. We considered this information along with all of the health risks and other health information considered in our determination of risk acceptability.

As described in section III.B of this preamble, our technology review focused on identifying developments in practices, processes, and control technologies for the Surface Coating of Large Appliances source category, and the EPA reviewed various information sources regarding emission sources that are currently regulated by the Surface Coating of Large Appliances NESHAP.

The only development identified in the technology review is the use of high-efficiency spray equipment. We estimated no costs or emissions reductions that would be achieved by switching to high efficiency application methods for this source category because we expect that large appliance surface coating facilities are already using high efficiency coating application methods due to state VOC rules and the economic incentives of using more efficient application methods. Because quantifiable

<sup>21</sup> Demographic groups included in the analysis are: White, African American, Native American, other races and multiracial, Hispanic or Latino, children 17 years of age and under, adults 18 to 64 years of age, adults 65 years of age and over, adults without a high school diploma, people living below the poverty level, people living above the poverty level, and linguistically isolated people.

reductions in risk are unlikely, we are proposing that the current standards provide an ample margin of safety. As discussed below, however, we are proposing to require this technology under the technology review. We request comment on this proposed requirement and whether any facilities in this source category do not currently use high efficiency coating application methods.

### c. Environmental Effects

The emissions data for the Surface Coating of Large Appliances source category indicate that two environmental HAP are emitted by sources within this source category: HCl and HF. The screening-level evaluation of the potential for adverse environmental risks associated with emissions of HCl and HF from the Surface Coating of Large Appliances source category indicated that each individual concentration (*i.e.*, each off-site data point in the modeling domain) was below the ecological benchmarks for all facilities. In addition, we are unaware of any adverse environmental effects caused by HAP emitted by this source category. Therefore, we do not expect there to be an adverse environmental effect as a result of HAP emissions from this source category and we are proposing that it is not necessary to set a more stringent standard to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.

### 3. What are the results and proposed decisions based on our technology review?

Our technology review focused on identifying developments in practices, processes, and control technologies for the Surface Coating of Large Appliances source category, and the EPA reviewed various information sources regarding emission sources that are currently regulated by the Surface Coating of Large Appliances NESHAP. These emission sources include coating mixing; coating application; coating curing; conveying coatings, thinners and cleaning materials; and waste storage and handling. Based on our review, we identified, as outlined below, one development in technology, the application of high-efficiency spray equipment, for the Surface Coating of Large Appliances source category. A brief summary of the EPA's findings in conducting the technology review of large appliance surface coating operations follows. For a detailed discussion of the EPA's findings, refer to the *Large Appliances Technology*

*Review Memorandum* in the Large Appliances Docket.

The technology basis for the original MACT standards for existing and new or reconstructed sources under the Surface Coating of Large Appliance NESHAP was the use of lower-HAP coatings, thinners, and cleaning materials. Add-on capture and control systems for organic HAP were rarely used by the industry at that time (65 FR 81142, December 22, 2000). During development of that rulemaking, we identified and considered three alternatives more stringent than the MACT floor level of control for organic HAP: (1) Conversion to powder coatings; (2) conversion to liquid coatings that have a very low, or no, organic HAP content; and (3) use of add-on capture systems and control devices (*i.e.*, an emission capture system such as a spray booth) used in conjunction with thermal recuperative oxidizers, regenerative thermal oxidizers (RTO), catalytic oxidizers, or activated carbon adsorbers). However, we did not adopt any of these alternatives because they were not applicable beyond a small subset of facilities or would not be cost-effective for the incremental emission reductions achieved beyond the MACT floor level of control (65 FR 81143).

Using the EPA's NEI and the ECHO databases, we identified ten large appliance surface coating facilities that are currently subject to the Surface Coating of Large Appliances NESHAP. We reviewed their state operating permits to determine whether any are using add-on control technologies to comply with the NESHAP. Two of the ten facilities have add-on controls, but the permits indicate that nine of the ten facilities are using the compliant materials option or the emission rate without add-on controls option to demonstrate compliance with the NESHAP. One facility with an add-on control is using the add-on control to comply with only a VOC emission limitation but not to comply with the NESHAP. The second facility with add-on controls does not have add-on controls on all coating operations, but a 2017 inspection report indicates that the facility is using the emission rate with add-on controls compliance option. This one facility differs from the others complying with subpart NNNN in that it is a contract coating operation that performs surface coating on parts of large appliances, but also performs surface coating on parts for a variety of industries. All of the other facilities are large appliance manufacturers. Therefore, the result from this one facility is not applicable to other facilities dedicated to manufacturing

just large appliances. Our search of the RBLC database did not identify any additional large appliance manufacturers using an add-on control device or subject to an emission limit more stringent than in subpart NNNN.

The use of a RTO and permanent total enclosure (PTE) was considered during development of the Large Appliances NESHAP as a control technology capable of achieving an efficiency of 95 percent, but was rejected as not cost effective for the incremental emission reductions that would be achieved relative to the MACT floor level of control. We found no information that any improvements in PTE and add-on control technology have occurred that would affect the cost-effectiveness of a PTE and add-on control or result in additional emission reductions. Therefore, EPA finds there have not been improvements in the RTO/PTE since we promulgated the NESHAP to support requiring this technology for the large appliance source category as part of the technology review.

We have not identified any process change or pollution prevention alternative that could be broadly applied to the large appliance coating industry. We reviewed the *ACA Industry Market Analysis* for recent trends in coating technology in the large appliance industry. The *ACA Industry Market Analysis* reports that the large appliance manufacturing industry has largely shifted from liquid coatings to powder coatings and pre-coated metal coil substrate. Specifically, the *ACA Industry Market Analysis* states that the volume of liquid finishes used in appliance finishes decreased by 67 percent between 2007 and 2014 as a result of the shift to powder coatings and pre-coated metal prepared by coil coating facilities. However, a substantial fraction of the coatings used (23 percent of coatings applied by large appliance coating facilities) are still liquid coatings, and the EPA is currently unable to determine whether all surface coating operations can be shifted to powder coatings or pre-coated metal coil substrate. The shift to the use of more powder coatings on specific parts has occurred as an expected industry response to comply with the original Surface Coating of Large Appliances NESHAP, but the shift was not category-wide, nor was it appropriate for all parts or segments of the industry. Since it is not a technology that can be adopted more broadly, we are not proposing to require use of powder coatings under the technology review. One area of development identified in the *ACA Industry Market Analysis* is the use of low-energy curing powders, such as

ultraviolet (UV)-cured powders, that can be used on plastic substrates. UV-cured powders are powder coatings that use ultraviolet light as the radiant energy source to initiate a photochemical reaction to generate a crosslinked network of polymer on the substrate surface. However, we were unable to find any information from our review of permits that UV-cured powder coating has been applied at large appliance surface coating facilities. For these reasons, EPA finds that there have not been developments in powder coatings and/or pre-coated metal coil substrates since we promulgated the NESHAP to support requiring this technology for all the sources in the large appliance source category as part of the technology review.

The technology review conducted for the Wood Furniture Manufacturing Operations NESHAP (40 CFR part 63, subpart JJ) identified air-assisted airless spraying, a more efficient coating application technology, as a development in process equipment, and adopted regulations preventing the use of conventional air-atomized coating spray guns. Several other surface coating NESHAP specify that high efficiency spray guns must be used for spray applied coatings (*i.e.*, 40 CFR part 63, subparts GG and JJ) or the compliance demonstration takes into account the transfer efficiency of the spray equipment, and the standards are based on high-efficiency spray application (*e.g.*, 40 CFR part 63, subpart IIII). Using high-efficiency spray equipment reduces the amount of coating applied compared to conventional spray equipment and, therefore, reduces emissions.

The Surface Coating of Large Appliances NESHAP does not contain any standards specifying the type of spray equipment that must be used when coatings are spray-applied. However, many facilities complying with the Surface Coating of Large Appliances NESHAP also are required by state VOC regulations in Indiana, Ohio, and Wisconsin to use high-efficiency spray guns for coatings that are spray applied. We expect that large appliance surface coating facilities in other states are also using high-efficiency application equipment for spray applied coatings as a cost saving measure to reduce coating and spray booth filter consumption and to reduce the amount of solid waste generated in the form of used spray booth filters. Although we expect that the high-efficiency application equipment would provide cost savings from an engineering perspective, we are uncertain of other factors that facilities

may need to consider if choosing to switch to high-efficiency application equipment. Due to the competitive marketplace and the number of units going through these surface coating facilities, there may be facility specific operational, coating adherence, coating drying time, material compatibility, or other reasons that a facility may not have chosen to switch to high-efficiency spray equipment. We request comment on these and other aspects of facility decision making, as the agency has limited information on the market penetration of this technology and these other factors.

Based on these findings, we are proposing to revise the Surface Coating of Large Appliances NESHAP for coating application operations pursuant to CAA section 112(d)(6) to require that, for each coating operation for which coatings are spray applied, high efficiency spray equipment must be used if the source is not using the emission rate with add-on control compliance option. Specifically, all spray-applied coating operations, where the source is not using the emission rate with add-on control compliance option, must be demonstrated to achieve transfer efficiency equivalent to or better than 65 percent. There are four types of high efficiency spray equipment technologies that have been applied in these applications that could achieve the transfer efficiency equivalent to or better than 65 percent including high volume, low pressure (HVLP) spray equipment, electrostatic application, airless spray equipment, and air assisted airless spray equipment. Alternative spray equipment technologies may also be used with documentation demonstrating at least 65 percent transfer efficiency. Spray application equipment sources not using the emission rate with add-on control compliance option, and/or using alternative spray application equipment technologies other than the four listed, must follow procedures in the California South Coast Air Quality Management District's, "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" to demonstrate that their spray application equipment is capable of achieving transfer efficiency equivalent to, or better than, 65 percent. Equivalency documentation may be certified by manufacturers of the spray equipment, on behalf of spray-applied coating operations sources, by following the aforementioned procedure in conjunction with California South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved

Transfer Efficient Spray Guns, September 26, 2002." When using these equivalency procedures and/or guidelines, facilities would not be required to submit an application with the test plan or protocol to the Administrator, conduct the test in the presence of an Administrator's representative, or submit test results to the Administrator for review or approval. Instead, they would be required to maintain records demonstrating the transfer efficiency achieved, including a description of the procedures and/or guidelines used. We are proposing that all spray equipment used for spray-applied coating operations would be required to be operated according to company procedures, local specified operating procedures, or the manufacturer's specifications, whichever is determined to meet the 65 percent transfer efficiency. Further, we are proposing related definitions for "airless and air-assisted airless spray," "electrostatic application," "high-volume, low-pressure (HVLP) spray equipment," "spray-applied coating operations," and "transfer efficiency."

Considering just the incremental cost of the high efficiency spray equipment and savings due to using less material consumption, we expect that all facilities have already switched to high efficiency application methods. However, if a large appliance surface coating facility not using the emission rate with add-on control compliance option replaced their existing coating spray guns with a high-efficiency spray gun required by this proposed rule, such as an air-assisted airless spray gun, an estimated cost to do so would be approximately \$700 per device, based on vendor information. See the memorandum titled *Impacts of Prohibiting the Use of Conventional Spray Guns in the Wood Manufacturing Operations Source Category* (Docket ID Number EPA-HQ-OAR-2010-0786 EPA). Any potential costs would be offset by savings in the cost of coatings, filters, and solid waste disposal fees for handling the liners used to capture coating overspray. EPA requests comment on this cost estimation, and whether other costs are associated with switching to high-efficiency spray equipment that the agency should consider in this technology review, such as operational efficiency changes, ancillary equipment changes, repair and maintenance costs, employee training or other factors

We have not estimated the emissions reductions achieved by switching to high efficiency application methods for this source category because we expect

that all large appliance surface coating facilities are using high efficiency coating application methods. However, if any facilities switch to high efficiency application equipment, there would likely be emission reductions. As an example, using the Wood Furniture Manufacturing Operations cost methodology, if a facility switched from conventional spray guns with 45 percent transfer efficiency to air-assisted airless spray guns with 65 percent transfer efficiency, to get one unit of solids on the part, an air-assisted airless spray gun needs 1.54 gallons of coating, compared to 2.22 gallons for a conventional spray gun. This increase transfer efficiency represents a 31 percent decrease in coating consumption, leading to a corresponding decrease in organic HAP emissions from coating application. For more information on the Wood Furniture Manufacturing Operations cost methodology, including the cost of spray gun equipment and calculation of potential HAP emission reductions, see the memorandum titled *Impacts of Prohibiting the Use of Conventional Spray Guns in the Wood Manufacturing Operations Source Category* (EPA Docket ID Number EPA-HQ-OAR-2010-0786 EPA). We request comment on whether facilities in the Large Appliances source category are not using high efficiency spray equipment and why it is not being used. Refer to section IV.A.5 of this preamble for a discussion of the compliance schedule for using high efficiency spray equipment

Finally, we identified no developments in work practices or procedures for the Surface Coating of Large Appliances source category, including work practices and procedures that are currently prescribed in the NESHP. The current Surface Coating of Large Appliances NESHP standards require that, if a facility uses add-on controls to comply with the emission limitations, the facility must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established. The current work practice requirements address the potential emission sources that are normally located outside of the emission sources that are routed to the control device, and no new measures have been identified to further reduce the emissions from these sources. For further discussion of the technology

review results, refer to the *Large Appliances Technology Review Memorandum* in the Large Appliances Docket.

In section III.B. above, we describe our typical approach for conducting technology reviews and the types of information we gather and evaluate as part of these reviews. In addition, we solicit comment on the relationship between the CAA section 112(d)(6) technology review and the CAA section 112(f) risk review. As we described in the preamble of the Coke Ovens RTR Final rule published on April 15, 2005 (70 FR 20009), we believe that the results of a CAA section 112(f) risk determination for a CAA section 112(d) standard should be key factors in any subsequent CAA section 112(d)(6) determination for that standard. In the Coke Ovens RTR final rule, the agency described potential scenarios where it may not be necessary to revise the standards based on developments in technologies, practices or processes if the remaining risks associated with air emissions from a source category have already been reduced to a level where we have determined further reductions under CAA section 112(f) are not necessary. Under one scenario, if the ample margin of safety analysis for the CAA section 112(f) determination was not based on the availability or cost of particular control technologies, then advances in air pollution control technology would not necessarily be a cause to revise the MACT standard pursuant to CAA section 112(d)(6), because the CAA section 112(f) standard (or a CAA section 112(d) standard evaluated pursuant to CAA section 112(f)) would continue to assure an adequate level of safety. Under another scenario, if the ample margin of safety analysis for a CAA section 112(f) standard (or a CAA section 112(d) standard evaluated pursuant to CAA section 112(f)) shows that lifetime excess cancer risks to the individual most exposed to emissions from a source in the category is less than 1-in-1 million, and the remaining risk associated with threshold pollutants falls below a similar threshold of safety, then no further revision under CAA section 112(d)(6) would be necessary, because an ample margin of safety has already been assured.

We solicit comment on whether revisions to the NESHP are “necessary”, as that term is used in CAA section 112(d)(6), in situations where EPA has determined that CAA section 112(d) standards evaluated pursuant to CAA section 112(f) provide an ample margin of safety to protect public health and prevent an adverse

environmental effect. In other words, we solicit comment on our conclusion that, if remaining risks associated with air emissions from a source category have already been reduced to levels where we have determined under CAA section 112(f) that further reductions are not necessary, then it is not “necessary” to revise the standards based on developments in technologies, practices or processes under CAA section 112(d)(6). See CAA s. 112(d)(6) (“The Administrator shall review, and revise as necessary . . .”). We also solicit comment on whether further revisions under CAA section 112(d)(6) would be necessary if the CAA section 112(f) ample margin of safety analysis shows lifetime excess cancer risks to the individual most exposed to emissions from a source in the category is less than 1-in-1 million or if other, either higher or lower, cancer risk levels would be appropriate to consider if they assured an ample margin of safety.

Though we believe the results of the ample margin of safety analysis may eliminate the need to revise the emissions standards as based on developments in technologies practices and processes, we conducted a technology review to determine if any developments to further reduce HAP emissions have occurred, and to consider whether the current standards should be revised to reflect any such developments. We believe that the use of high-efficiency spray equipment in the Surface Coating of Large Appliances source category is cost effective, presents minimal or no additional burden and achieves reductions in actual or potential HAP emissions. Therefore, based on our technology review, we are proposing to require the use of high-efficiency spray application equipment for the Surface Coating of Large Appliances source category. Note that the discussion directly above also applies to the Printing, Coating, and Dyeing of Fabrics and Other Textiles and Surface Coating of Metal Furniture source categories.

#### 4. What other actions are we proposing?

In the Surface Coating of Large Appliances source category, we are proposing to require electronic submittal of notifications, semi-annual reports and compliance reports (which include performance test reports). In addition, we are proposing revisions to the startup, shutdown, and malfunction (SSM) provisions of the MACT rule in order to ensure that they are consistent with the Court decision in *Sierra Club v. EPA*, 551 F. 3d 1019 (D.C. Cir. 2008), which vacated two provisions that exempted source owners and operators

from the requirement to comply with otherwise applicable CAA section 112(d) emission standards during periods of SSM. We also propose other changes, including addition of EPA Method 18, updating references to equivalent test methods, making technical and editorial revisions, and incorporation by reference (IBR) of alternative test methods. Our analyses and proposed changes related to these issues are discussed in the sections below.

Though we are not proposing to change reporting frequency currently in the rule, we are requesting comment on changing the reporting frequency for all reports to EPA from semi-annual to annual due to the potential redundancy of these reporting requirements. We recognize that Title V permits have a statutory requirement for semi-annual reports, which are generally reported to state regulatory agencies. However, we are not certain that changing the report frequency for just the reports submitted to EPA in this NESHAP will result in a reporting and recordkeeping burden reduction. We request comment and supporting information on the burden impact of changing the reporting requirement to annual for the reporting to EPA.

#### a. Electronic Reporting Requirements

The EPA proposes to require owners and operators of Surface Coating of Large Appliances facilities to submit electronic copies of initial notifications required in 40 CFR 63.9(b), notifications of compliance status required in 40 CFR 63.9(h), performance test reports, and semiannual reports through the EPA's Central Data Exchange (CDX), using the Compliance and Emissions Data Reporting Interface (CEDRI).<sup>22</sup> For further information regarding the electronic data submission process, please refer to the memorandum titled *Electronic Reporting for Surface Coating of Large Appliances, Subpart NNNN*, May 2018, in the Large Appliances Docket. Note that the rule proposes to require that performance test results collected using test methods that are not supported by the ERT as listed on the EPA's ERT website at the time of the test be submitted in portable document format (PDF) using the attachment module of the ERT.

The EPA proposes that electronic submittal of notifications and reports (initial notifications required in 40 CFR 63.9(b), notifications of compliance status required in 40 CFR 63.9(h), and

semiannual reports) be required using electronic reporting forms that the EPA will make available in CEDRI. No specific form is proposed at this time for the initial notifications required in 40 CFR 63.9(b) and notifications of compliance status required in 40 CFR 63.9(h). Until the EPA has completed electronic forms for these notifications, the notifications will be required to be submitted via CEDRI in PDF. For semiannual reports, the EPA proposes that owners or operators use the appropriate spreadsheet template in CEDRI for 40 CFR part 63, subpart NNNN, or an alternate electronic file format consistent with the form's extensible markup language schema. For further information regarding the electronic data submission process, please refer to the spreadsheet attached to the memorandum titled *Electronic Reporting Template for Surface Coating of Large Appliances, Subpart NNNN Semiannual Reports*, May 2018, in the Large Appliances Docket. We specifically request comment on the format and usability of the template (e.g., filling out and uploading a provided spreadsheet versus entering the required information into an on-line fillable CEDRI web form), as well as the content, layout, and overall design of the template. Prior to availability of the final semiannual compliance report template in CEDRI, owners or operators of affected sources will be required to submit semiannual compliance reports as otherwise required by the Administrator. After development of the final template, sources will be notified about its availability via the CEDRI website and the Clearinghouse for Inventories and Emissions Factors (CHIEF) Listserv.<sup>23</sup> We plan to finalize a required reporting format with the final rule. The owner or operator would begin submitting reports electronically with the next report that is due, once the electronic template has been available for at least one year.

As noted above, we propose that 40 CFR part 63, subpart NNNN, performance test reports be submitted through the EPA's Electronic Reporting Tool (ERT). The proposal to submit performance test data electronically to the EPA applies only if the EPA has developed an electronic reporting form for the test method as listed on the EPA's ERT website ([https://www3.epa.gov/ttn/chief/ert/ert\\_info.pdf](https://www3.epa.gov/ttn/chief/ert/ert_info.pdf)) and the agency has obtained an approved OMB control number consistent with the requirements of the Paperwork Reduction Act. Note that all but one of

the EPA test methods (optional EPA Method 18) listed under the emissions destruction or removal efficiency section of 40 CFR part 63, subpart NNNN, are currently supported by the ERT. As mentioned above, the rule proposes that should an owner or operator choose to use Method 18, then its results would be submitted in PDF using the attachment module of the ERT.

We propose to provide owners or operators of facilities with the ability to seek extensions for submitting electronic reports for circumstances beyond the control of the facility, i.e., for a possible outage in the CDX or CEDRI or for a force majeure event in the time just prior to a report's due date.

In 40 CFR 63.4121(d), we propose to address the situation where an extension may be warranted due to outages of the EPA's CDX or CEDRI that may prevent access to the system and submittal of the required reports. If either the CDX or CEDRI is unavailable at any time beginning five business days prior to the date that the submission is due, and the unavailability prevents the submission of a report by the required date, we propose to enable the owner or operator of a facility to assert a claim of EPA system outage. We consider five business days prior to the reporting deadline to be an appropriate timeframe because if the system is down and returns to service prior to this time, facilities will still have 1 week prior to the reporting deadline to complete reporting once the system is back online. However, if the CDX or CEDRI is down during the week a report is due, we realize that this could greatly impact the ability to submit a required report on time. We will notify owners or operators of facilities about known outages as far in advance as possible by notification using the CHIEF Listserv, posting on the CEDRI website, and posting on the CDX website so that owners or operators can plan accordingly and still meet the reporting deadlines. However, if a planned or unplanned outage of the EPA's CDX or CEDRI occurs and an owner or operator of a facility believes that the outage will affect or it has affected compliance with an electronic reporting requirement, the proposed rule provides a process to assert such a claim.

Also in 40 CFR 63.4121(e), we propose to address the situation where an extension may be warranted due to a force majeure event, which is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents

<sup>22</sup> <https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>.

<sup>23</sup> <https://www.epa.gov/air-emissions-inventories/air-emissions-inventory-listservs>.

compliance with the requirement to submit a report electronically as required by this rule. Examples of such events are acts of nature, acts of war or terrorism, equipment failures, or safety hazards that are beyond the control of the facility. If such an event occurs, or is still occurring, or if there are still lingering effects of the event in the five business days prior to a submission deadline, the proposed rule provides a process to assert a claim of force majeure.

While we propose these potential extensions to protect facilities from noncompliance with reporting requirements in cases when a facility cannot successfully submit a report by the reporting deadline for reasons outside of its control as described above, we do not propose an extension for other circumstances. Facility owners or operators should register for CEDRI far in advance of the initial compliance date to ensure that they can complete the identity proofing process prior to the initial compliance date. Additionally, we recommend developing reports early in case any questions arise during the reporting process.

As discussed in the *Electronic Reporting for Surface Coating of Large Appliances Subpart NNNN* memorandum, electronic submittal of the reports addressed in this proposed rulemaking will increase the usefulness of those reports, and in keeping with current trends in data availability, will further assist in the protection of public health and the environment and will ultimately result in less burden on regulated facilities. Electronic submittal will also improve compliance by facilitating the ability of regulated facilities to demonstrate compliance and the ability of air agencies and the EPA to assess and determine compliance. Moreover, electronic reporting is consistent with EPA's plan<sup>24</sup> to implement Executive Order 13563 and agency-wide policy to implement the White House's Digital Government Strategy<sup>25</sup> by specifying that new regulations will require reports to be electronic to the maximum extent possible. In addition to supporting regulation development, control strategy development, and other air pollution control activities, we believe that having

an electronic database populated with performance test data will save industry, air agencies, and the EPA significant time, money, and effort while improving the quality of emission inventories and air quality regulations and enhancing the public's access to this important information.

#### b. Startup, Shutdown, and Malfunction Requirements

##### 1. Proposed Elimination of the SSM Exemption

In its 2008 decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), the United States Court of Appeals for the District of Columbia Circuit vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM. Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), holding that under section 302(k) of the CAA, emissions standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some CAA section 112 standards apply continuously.

We are proposing the elimination of the SSM exemption in this rule. Consistent with *Sierra Club v. EPA*, we are proposing standards in this rule that apply at all times. We are also proposing several revisions to Table 2 to subpart NNNN of part 63 (*Applicability of General Provisions to Subpart NNNN*, hereafter referred to as the "General Provisions table to subpart NNNN"), as explained in more detail below in section IV.A.4.b.2 of this preamble. For example, we are proposing to eliminate the incorporation of the General Provisions' requirement that the source develop an SSM plan. We are also proposing to delete 40 CFR 63.4163(h), which specifies that deviations during SSM periods are not violations. Further, we are proposing to eliminate and revise certain recordkeeping and reporting requirements related to the SSM exemption as further described below. The EPA has attempted to ensure that the provisions we are proposing to eliminate are inappropriate, unnecessary, or redundant in the absence of the SSM exemption. We are seeking comment on the specific proposed deletions and revisions and also whether additional provisions should be revised to achieve the stated goal.

In proposing these rule amendments, the EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not proposed alternate standards for those periods. Startups and shutdowns are

part of normal operations for the Surface Coating of Large Appliances source category. As currently specified in 40 CFR 63.4092(b), any coating operation(s) for which you use the emission rate with add-on controls option must meet operating limits "at all times," except for solvent recovery systems for which you conduct liquid-liquid material balances according to 40 CFR 63.4161(h). Also, as currently specified in 40 CFR 63.4100(a)(2), any coating operation(s) for which you use the emission rate with add-on controls option must be in compliance "at all times" with the emission limit in 40 CFR 63.4090 and work practice standards in 40 CFR 63.4093. This means that during startup and shutdown periods, in order for a facility using add-on controls to meet the emission and operating standards, the control device for a coating operation needs to be turned on and operating at specified levels before the facility begins coating operations, and the control equipment needs to continue to be operated until after the facility ceases coating operations. In some cases, the facility needs to run thermal oxidizers on supplemental fuel before there are enough VOC for the combustion to be (nearly) self-sustaining. The proposed language in 40 CFR 63.4100 requires that the owner or operator operate and maintain the coating operation, including pollution control equipment, at all times to minimize emissions. See section IV.A.4.b.2 of this preamble for further discussion of this proposed revision.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead they are, by definition sudden, infrequent and not reasonably preventable failures of emissions control, process or monitoring equipment. (40 CFR 63.2) (Definition of malfunction). The EPA interprets CAA section 112 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 112 standards and this reading has been upheld as reasonable by the Court in *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606–610 (2016). Under CAA section 112, emissions standards for new sources must be no less stringent than the level "achieved" by the best controlled similar source and for existing sources generally must be no less stringent than the average emission limitation "achieved" by the best performing 12 percent of sources in the category. There is nothing in CAA

<sup>24</sup> Improving Our Regulations: Final Plan for Periodic Retrospective Reviews of Existing Regulations, August 2011. Available at <https://www.regulations.gov>, Document ID No. EPA-HQ-OA-2011-0156-0154.

<sup>25</sup> Digital Government: Building a 21st Century Platform to Better Serve the American People, May 2012. Available at <https://www.whitehouse.gov/sites/default/files/omb/egov/digital-government/digitalgovernment-strategy/pdf>.

section 112 that directs the Agency to consider malfunctions in determining the level “achieved” by the best performing sources when setting emission standards. As the Court has recognized, the phrase “average emissions limitation achieved by the best performing 12 percent of” sources “says nothing about how the performance of the best units is to be calculated.” *Nat’l Ass’n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1141 (D.C. Cir. 2013). While the EPA accounts for variability in setting emissions standards, nothing in CAA section 112 requires the Agency to consider malfunctions as part of that analysis. The EPA is not required to treat a malfunction in the same manner as the type of variation in performance that occurs during routine operations of a source. A malfunction is a failure of the source to perform in a “normal or usual manner” and no statutory language compels the EPA to consider such events in setting CAA section 112 standards.

As the Court recognized in *U.S. Sugar Corp.*, accounting for malfunctions in setting standards would be difficult, if not impossible, given the myriad different types of malfunctions that can occur across all sources in the category and given the difficulties associated with predicting or accounting for the frequency, degree, and duration of various malfunctions that might occur. *Id.* at 608 (“the EPA would have to conceive of a standard that could apply equally to the wide range of possible boiler malfunctions, ranging from an explosion to minor mechanical defects. Any possible standard is likely to be hopelessly generic to govern such a wide array of circumstances.”) As such, the performance of units that are malfunctioning is not “reasonably” foreseeable. See, e.g., *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999) (“The EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency’s decision to proceed on the basis of imperfect scientific information, rather than to invest the resources to conduct the perfect study.”) See also, *Weyerhaeuser v. Costle*, 590 F.2d 1011, 1058 (D.C. Cir. 1978) (“In the nature of things, no general limit, individual permit, or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by ‘uncontrollable acts of third parties,’ such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for

the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation.”) In addition, emissions during a malfunction event can be significantly higher than emissions at any other time of source operation. For example, if an air pollution control device with 99-percent removal goes off-line as a result of a malfunction (as might happen if, for example, the bags in a baghouse catch fire) and the emission unit is a steady state type unit that would take days to shut down, the source would go from 99-percent control to zero control until the control device was repaired. The source’s emissions during the malfunction would be 100 times higher than during normal operations. As such, the emissions over a 4-day malfunction period would exceed the annual emissions of the source during normal operations. As this example illustrates, accounting for malfunctions could lead to standards that are not reflective of (and significantly less stringent than) levels that are achieved by a well-performing non-malfunctioning source. It is reasonable to interpret CAA section 112 to avoid such a result. The EPA’s approach to malfunctions is consistent with CAA section 112 and is a reasonable interpretation of the statute.

Although no statutory language compels the EPA to set standards for malfunctions, the EPA has the discretion to do so where feasible. For example, in the Petroleum Refinery Sector Risk and Technology Review, the EPA established a work practice standard for unique types of malfunctions that result in releases from pressure relief devices or emergency flaring events because we had information to determine that such work practices reflected the level of control that applies to the best performing sources (80 FR 75178, 75211–14, December 1, 2015). The EPA will consider whether circumstances warrant setting standards for a particular type of malfunction and, if so, whether the EPA has sufficient information to identify the relevant best performing sources and establish a standard for such malfunctions. We also encourage commenters to provide any such information.

It is unlikely that a malfunction in the application of large appliance surface coatings would result in a violation of the standards. A malfunction would not lead to an increase in the HAP content of the coatings or the amount of HAP emitted from those coatings; therefore, it is unlikely that malfunctions at facilities using the compliant material or emission rate without control option would result in a violation in any case

where compliant materials are used. Finally, compliance with the large appliance surface coating emission limits is based on a monthly compliance period, so any malfunction that causes a short-term increase in emissions may not cause a violation of the standard. Similarly, for facilities in the surface coating of metal furniture source category using the emission rate with add-on control compliance option or percent reduction compliance option, the short-term malfunction of an emission capture system or control device is also unlikely to lead to a violation if the owner or operator operates and maintains the affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions during that malfunction. Because compliance is based on a monthly or a rolling 12-month compliance period, a short-term malfunction is likely to represent only a small percent of the total operating time of the affected source. A single malfunction is also not likely to affect all of the emission units and control devices within the affected source. Therefore, a malfunction is not likely to result in a violation of the standards, and we have no information to suggest that it is feasible or necessary to establish any type of standard for malfunctions associated with the Surface Coating of Large Appliances or the Surface Coating of Metal Furniture source categories.

We are requesting comment on the need to establish a standard during periods of malfunction for the Fabric and Other Textiles source category in this action, and we are seeking the specific information described in section IV.B.4 of this preamble to support such a standard. We believe a work practice standard would be appropriate for a malfunction at facilities in this category. We are requesting comment on two alternatives in this preamble. The work practice standard, if included in the final rule, would include the following, or similar, requirements.

In the first alternative if a malfunction of a control device or a capture system that is used to meet the emission limits of this rule occurs, the facility may elect to continue operation without the control device for the period of the malfunction so long as it continues to meet the emission limits for the current compliance period. Each workstation would discontinue its application of coating materials onto the web, and complete drying of any coating materials already applied onto the web as of the start of the malfunction. Draining coating materials from the



line's applicators, or from piping, pans, or related equipment that deliver coating materials to the applicator, is not required. Deviations of a monitored parameter of a control device or enclosure are not malfunctions for purposes of this requirement.

A second alternative would require that repairs be immediately initiated and completed as expeditiously as possible, but the line would not have to cease operation. We note that this source category compliance is based on a 12-month rolling average. Therefore, operating a period of time without a control device would not necessarily result in an exceedance of the emissions limit. However, the facility would not be allowed to continue to operate the coating line once it becomes apparent they will be unable to complete repairs before the 12-month rolling average compliance limit will be exceeded. We request comment on both of these approaches for the Fabrics and Other Textiles source category.

In the unlikely event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA will determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. The EPA will also consider whether the source's failure to comply with the CAA section 112(d) standard was, in fact, sudden, infrequent, not reasonably preventable and was not instead caused in part by poor maintenance or careless operation. 40 CFR 63.2 (definition of malfunction).

If the EPA determines in a particular case that an enforcement action against a source for violation of an emission standard is warranted, the source can raise any and all defenses in that enforcement action and the federal district court will determine what, if any, relief is appropriate. The same is true for citizen enforcement actions. Similarly, the presiding officer in an administrative proceeding can consider any defense raised and determine whether administrative penalties are appropriate.

In summary, the EPA interpretation of the CAA and, in particular, CAA section 112 is reasonable and encourages practices that will avoid malfunctions. Administrative and judicial procedures for addressing exceedances of the standards fully recognize that violations may occur despite good faith efforts to comply and can accommodate those

situations. *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606–610 (2016).

## 2. Proposed Revisions to the General Provisions Applicability Table

### a. 40 CFR 63.4100(b) General Duty

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.6(e)(1)(i) by changing the "yes" in column 3 to a "no." Section 63.6(e)(1)(i) describes the general duty to minimize emissions. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. We are proposing instead to add general duty regulatory text at 40 CFR 63.4100(b) that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption, there is no need to differentiate between normal operations, startup and shutdown, and malfunction events in describing the general duty. Therefore, the language the EPA is proposing for 40 CFR 63.4100(b) does not include that language from 40 CFR 63.6(e)(1).

We are also proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.6(e)(1)(ii) by changing the "yes" in column 3 to a "no." Section 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant with the general duty requirement being added at 40 CFR 63.4100(b).

### b. SSM Plan

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.6(e)(3) by changing the "yes" in column 3 to a "no." Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. We are also proposing to remove from 40 CFR part 63, subpart NNNN, the current provisions requiring the SSM plan, including 40 CFR 63.4100(d) and 63.4110(b)(9)(v). As noted, the EPA is proposing to remove the SSM exemptions. Therefore, affected units will be subject to an emission standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive to plan for and achieve compliance, and, thus, the SSM plan requirements are no longer necessary.

### c. Compliance With Standards

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.6(f)(1) by changing the "yes" in column 3 to a "no." The current language of 40 CFR 63.6(f)(1) exempts sources from non-opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club* vacated the exemptions contained in this provision and held that the CAA requires that some CAA section 112 standards apply continuously. Consistent with *Sierra Club*, the EPA is proposing to revise standards in this rule to apply at all times.

We are also proposing to remove rule text in 40 CFR 63.4161(g) clarifying that, in calculating emissions to demonstrate compliance, deviation periods must include deviations during an SSM period. Since the EPA is removing the SSM exemption, this clarifying text is no longer needed.

### d. 40 CFR 63.4164 Performance Testing

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.7(e)(1) by changing the "yes" in column 3 to a "no." Section 63.7(e)(1) describes performance testing requirements. The EPA is instead proposing to add a performance testing requirement at 40 CFR 63.4164. The performance testing requirements we are proposing to add differ from the General Provisions performance testing provisions in several respects. The regulatory text does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and language that precluded startup and shutdown periods from being considered "representative" for purposes of performance testing. The proposed performance testing provisions will also not allow performance testing during startup or shutdown. As in 40 CFR 63.7(e)(1), performance tests conducted under this subpart should not be conducted during malfunctions because conditions during malfunctions are often not representative of normal operating conditions. Section 63.7(e) requires that the owner or operator maintain records of the process information necessary to document operating conditions during the test and include in such records an explanation to support that such conditions represent normal operation. The EPA is proposing to add language clarifying that the owner or operator must make such records available to the Administrator upon request.

#### e. Monitoring

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.8(c)(1)(i) and (iii) by changing the “yes” in column 3 to a “no.” The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)). Further, we are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.8(c)(1)(ii) by changing the “yes” in column 3 to a “no.” We have determined that 40 CFR 63.8(c)(1)(ii) is redundant to the current monitoring requirement in 40 CFR 63.4168(a)(4) (*i.e.*, “have available necessary parts for routine repairs of the monitoring equipment,” except 40 CFR 63.8(c)(1)(ii) specifies “have readily available.” We are proposing to revise 40 CFR 63.4168(a)(4) to specify “readily available.”

#### f. 40 CFR 63.4130 Recordkeeping

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.10(b)(2)(i) by changing the “yes” in column 3 to a “no.” Section 63.10(b)(2)(i) describes the recordkeeping requirements during startup and shutdown. These recording provisions are no longer necessary because the EPA is proposing that recordkeeping and reporting applicable to normal operations will apply to startup and shutdown. In the absence of special provisions applicable to startup and shutdown, such as a startup and shutdown plan, there is no reason to retain additional recordkeeping for startup and shutdown periods.

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.10(b)(2)(ii) by changing the “yes” in column 3 to a “no.” Section 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction, requiring a record of “the occurrence and duration of each malfunction.” A similar record is already required in 40 CFR 63.4130(j), which requires a record of “the date, time, and duration of each deviation,” which the EPA is retaining. The regulatory text in 40 CFR 63.4130(j) differs from the General Provisions in that the General Provisions requires the creation and retention of a record of the occurrence and duration of each

malfunction of process, air pollution control, and monitoring equipment; whereas 40 CFR 63.4130(j) applies to any failure to meet an applicable standard and is requiring that the source record the date, time, and duration of the failure rather than the “occurrence.” For this reason, the EPA is proposing to add to 40 CFR 63.4130(j) a requirement that sources also keep records that include a list of the affected source or equipment and actions taken to minimize emissions, an estimate of the quantity of each regulated pollutant emitted over the emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions. Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters (*e.g.*, coating HAP content and application rates and control device efficiencies). The EPA is proposing to require that sources keep records of this information to ensure that there is adequate information to allow the EPA to determine the severity of any failure to meet a standard, and to provide data that may document how the source met the general duty to minimize emissions when the source has failed to meet an applicable standard.

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.10(b)(2)(iv) by changing the “yes” in column 3 to a “no.” When applicable, the provision requires sources to record actions taken during SSM events when actions were inconsistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required. The requirement previously applicable under 40 CFR 63.10(b)(2)(iv)(B) to record actions to minimize emissions and record corrective actions is now applicable by reference to 40 CFR 63.4130(j)(4).

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.10(b)(2)(v) by changing the “yes” in column 3 to a “no.” When applicable, the provision requires sources to record actions taken during SSM events to show that actions taken were consistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required.

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.10(c)(15) by changing the “yes” in column 3 to a “no.” The EPA is proposing that 40 CFR 63.10(c)(15) no longer applies. When applicable, the

provision allows an owner or operator to use the affected source’s SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA is proposing to eliminate this requirement because SSM plans would no longer be required, and, therefore, 40 CFR 63.10(c)(15) no longer serves any useful purpose for affected units.

We are proposing to remove the requirement in 40 CFR 63.4130(k)(1) that deviation records specify whether deviations from a standard occurred during a period of SSM. This revision is being proposed due to the proposed removal of the SSM exemption and because, as discussed above in this section, we are proposing that deviation records must specify the cause of each deviation, which could include a malfunction period as a cause. We are also proposing to remove the requirement to report the SSM records in 40 CFR 63.6(e)(3)(iii) through (v) by deleting 40 CFR 63.4130(k)(2).

#### g. 40 CFR 63.4120 Reporting

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.10(d)(5) by changing the “yes” in column 3 to a “no.” Section 63.10(d)(5) describes the reporting requirements for startups, shutdowns, and malfunctions. To replace the General Provisions reporting requirement, the EPA is proposing to add reporting requirements to 40 CFR 63.4120. The replacement language differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We are proposing language that requires sources that fail to meet an applicable standard at any time to report the information concerning such events in the semi-annual compliance report already required under this rule. Subpart NNNN currently requires reporting of the date, time period, and cause of each deviation. We are clarifying in the rule that, if the cause of a deviation from the standard is unknown, this should be specified in the report. We are also proposing to change “date and time period” to “date, time, and duration” (see proposed revisions to 40 CFR 63.4120(d)(1), (g)(6), (g)(8), and (g)(13)) to use terminology consistent with the recordkeeping section. Further, we are proposing that the report must also contain the number of deviations from the standard, and a list of the affected source or equipment. For deviation reports addressing deviations from an applicable emission limit in 40 CFR

63.4090 or operating limit in Table 1 to subpart NNNN, we are proposing that the report also include an estimate of the quantity of each regulated pollutant emitted over any emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions. For deviation reports addressing deviations from work practice standards associated with the emission rate with add-on controls option (40 CFR 63.4120(g)(13)), we are retaining the current requirement (including reporting actions taken to correct the deviation), except that we are revising the rule language to reference the new general duty requirement in 40 CFR 63.4100(b), we are clarifying that the description of the deviation must include a list of the affected sources or equipment and the cause of the deviation, we are clarifying that “time period” includes the “time and duration,” and we are requiring that the report include the number of deviations from the work practice standards in the reporting period. Further, we are proposing to apply these same reporting requirements to deviations from the proposed new equipment standards associated with high efficiency spray equipment (see proposed revisions in 40 CFR 63.4120(d)(2)(vi), (e)(2), and (e)(2)(v)).

Regarding the proposed new requirement discussed above to estimate the quantity of each regulated pollutant emitted over any emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions, examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters (e.g., coating HAP content and application rates and control device efficiencies). The EPA is proposing this requirement to ensure that there is adequate information to determine compliance, to allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

We will no longer require owners or operators to determine whether actions taken to correct a malfunction are consistent with an SSM plan, because plans would no longer be required. The proposed amendments, therefore, eliminate 40 CFR 63.4120(j) that requires reporting of whether the source deviated from its SSM plan, including required actions to communicate with

the Administrator, and the cross reference to 40 CFR 63.10(d)(5)(i) that contains the description of the previously required SSM report format and submittal schedule from this section. These specifications are no longer necessary because the events will be reported in otherwise required reports with similar format and submittal requirements.

We are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.10(d)(5)(ii) by changing the “yes” in column 3 to a “no.” Section 63.10(d)(5)(ii) describes an immediate report for startups, shutdown, and malfunctions when a source failed to meet an applicable standard, but did not follow the SSM plan. We will no longer require owners and operators to report when actions taken during a startup, shutdown, or malfunction were not consistent with an SSM plan, because plans would no longer be required.

We are proposing to remove the requirements in 40 CFR 63.4120(g)(8) that deviation reports must specify whether deviation from an operating limit occurred during a period of SSM. We are also proposing to remove the requirements in 40 CFR 63.4120(g)(10) to break down the total duration of deviations into the startup and shutdown categories. As discussed above in this section, we are proposing to require reporting of the cause of each deviation. Further, the startup and shutdown categories no longer apply because these periods are proposed to be considered normal operation, as discussed in section IV.A.4.b.1 of this preamble.

#### c. Technical Amendments to the Surface Coating of Large Appliances NESHAP

We propose to amend 40 CFR 63.4166(b) to add the option of conducting EPA Method 18 of appendix A to 40 CFR part 60, “Measurement of Gaseous Organic Compound Emissions by Gas Chromatography,” to measure and then subtract methane emissions from measured total gaseous organic mass emissions as carbon. Facilities using the emission rate with add-on control compliance option can use either EPA Method 25 or Method 25A to measure control device destruction efficiency. Unlike EPA Method 25, Method 25A does not exclude methane from the measurement of organic emissions. Because many exhaust streams from coating operations may contain methane from natural gas combustion, we are proposing to allow facilities the option to measure this methane using Method 18 and to subtract this methane from the

emissions as part of their compliance calculations. We also propose to revise the format of references to test methods in 40 CFR part 60. The current reference in 40 CFR 63.4166(a) and (b) to Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 25, and 25A specify that each method is in “appendix A” of part 60. Appendix A of part 60 has been divided into appendices A–1 through A–8. We propose to revise each reference to appendix A to indicate which of the eight sections of appendix A applies to the method.

EPA is proposing to amend 40 CFR 63.4141(a)(1)(i) and (4) to remove reference to paragraph (d)(4) of OSHA’s Hazard Communication standard, which dealt with OSHA-defined carcinogens. EPA is proposing to replace that reference with its own list of hazardous air pollutants that must be regarded as potentially carcinogenic based on EPA guidelines. Although paragraph (d)(4) of OSHA’s standard was deleted when the Agency adopted the Globally Harmonized System of Hazard Communication in 2012, it was replaced by section A.6.4.2 of mandatory Appendix A of that standard, which reads as follows:

“Where OSHA has included cancer as a health hazard to be considered by classifiers for a chemical covered by 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, chemical manufacturers, importers, and employers shall classify the chemical as a carcinogen.” Thus, where OSHA has regulated workplace exposure to a chemical based, at least in part, on carcinogenic risk, OSHA requires the chemical to be classified as a carcinogen. OSHA suggests that EPA should refer to section A.6.4.2 of Appendix A of 29 CFR 1910.1200 in its discussion of section 63.4141 and consider chemicals that meet this requirement be considered “OSHA-defined carcinogens.”

We are proposing to replace these references to carcinogens in 29 CFR 1910.1200(d)(4) with a list (in proposed new Table 5 to subpart NNNN) of those organic HAP that must be included in calculating total organic HAP content of a coating material if they are present at 0.1 percent or greater by mass.

We propose to include organic HAP in proposed Table 5 to subpart NNNN if they were categorized in the EPA’s *Prioritized Chronic Dose-Response Values for Screening Risk Assessments* (dated May 9, 2014) as a “human carcinogen,” “probable human carcinogen,” or “possible human carcinogen” according to *The Risk Assessment Guidelines of 1986* (EPA/

600/8–87/045, August 1987),<sup>26</sup> or as “carcinogenic to humans,” “likely to be carcinogenic to humans,” or with “suggestive evidence of carcinogenic potential” according to the *Guidelines for Carcinogen Risk Assessment* (EPA/630/P–03/001F, March 2005).

We propose to revise the monitoring provisions for thermal and catalytic oxidizers to clarify that a thermocouple is part of the temperature sensor referred to in 40 CFR 63.4168(c)(3) for purposes of performing periodic calibration and verification checks.

We propose to renumber 40 CFR 63.4130(k)(8) and (9) to be 40 CFR 63.4130(k)(7) and (8) because current paragraph 40 CFR 63.4130(k) is missing a paragraph (k)(7). This revision will address any confusion over this missing paragraph. We also propose to revise the rule citation “§ 63.4130(k)(9)” in 40 CFR 63.4163(e) to be “§ 63.4130(k)(8),” consistent with the proposed renumbering of 40 CFR 63.4130(k)(9) to (k)(8).

Current 40 CFR 63.4931(a) allows records, “where appropriate,” to be maintained as “electronic spreadsheets” or a “data base.” We propose to add clarification to this provision that the allowance to retain electronic records applies to all records that were submitted as reports electronically via the EPA’s CEDRI. We also propose to add text to the same provision clarifying that this ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

We propose to revise various erroneous rule citations. We propose to revise one instance in 40 CFR 63.4160(a)(1) and three instances in 40 CFR 63.4160(b)(1) that an erroneous rule citation “§ 63.4183” is specified. Section 63.4183 does not exist in 40 CFR part 63, subpart NNNN, and 40 CFR 63.4083 is the correct citation, providing the compliance dates referred to in association with the erroneous rule citation. We propose to change the erroneous citation to “§ 63.4083.” We propose to revise one instance in 40 CFR 63.4110(b)(10) of an erroneous rule citation “§ 63.4081(d).” This rule citation is specified in 40 CFR 63.4110(b)(10) as the source for the allowance to comply with the requirements of another subpart in lieu of the requirements of this subpart NNNN. The correct citation for this allowance is 40 CFR 63.4081(e), and we

propose to change the erroneous citation to “§ 63.4081(e).” We propose to revise one instance in 40 CFR 63.4130(f) and one instance in 40 CFR 63.4130(g) of an erroneous rule citation of “§ 63.4141(a).” This rule citation is specified in each 40 CFR 63.4130(f) and (g) as the source for the allowance that the volume solids determination is not required for coatings for which the mass fraction of organic HAP of the coating equals zero. However, it is the introductory paragraph to 40 CFR 63.4141, not 40 CFR 63.4141(a), that provides the allowance to not be required to determine the volume solids for zero-HAP coatings. We propose to change the erroneous citation to “§ 63.4141.” We propose to revise one instance in 40 CFR 63.4168(c)(2) that an erroneous rule citation “§ 63.6167(b)(1) and (2)” is specified. Section 40 CFR 63.6167(b)(1) and (2) does not exist in 40 CFR part 63, subpart NNNN. Section 40 CFR 63.4167(b)(1) and (2) is the correct citation, describing how to establish operating limits for catalytic oxidizers as referred to in association with the erroneous rule citation. We propose to change the erroneous citation to “§ 63.4167(b)(1) and (2).” We propose to revise two instances in Table 2 to Subpart NNNN of Part 63 of an erroneous rule citation “§ 63.4120(b).” This rule citation is specified in the fourth column of the table entry for “§ 63.10(d)(2),” as the source for the requirements related to reporting results of performance tests. Section 40 CFR 63.4120(b) does not provide these types of requirements; however, 40 CFR 63.4120(h) provides these requirements. The correct citation for this allowance is 40 CFR 63.4120(h), and we propose to change the erroneous citation to “§ 63.4120(h).” The rule citation “§ 63.4120(b)” is also specified in the fourth column of the table entry for “§ 63.10(e)(3),” as the source for the contents of periodic compliance reports. Section 40 CFR 63.4120(b) does not provide the contents of periodic compliance reports; however, 40 CFR 63.4120(g) provides these requirements. The correct citation for this allowance is 40 CFR 63.4120(g), and we propose to change the erroneous citation to “§ 63.4120(g).” Current 40 CFR 63.4152(c) requires inclusion in the semiannual compliance report of a statement that the source was in compliance with the emission limitations during the reporting period. We propose to add clarification to this provision that the requirement to submit this statement applies only if there were no deviations from the emission limitations.

d. Requesting Comment on Ongoing Emissions Compliance Demonstrations

As part of an ongoing effort to improve compliance with various federal air emission regulations, the EPA reviewed the compliance demonstration requirements in the Surface Coating of Large Appliance NESHAP. Currently, if a source owner or operator chooses to comply with the standards using add-on controls, the results of an initial performance test are used to determine compliance; however, the rule does not require on-going periodic performance testing for these emission capture systems and add-on controls.

As mentioned by the Institute of Clean Air Companies (ICAC) in their comments on proposed revisions to the NESHAP General Provisions (72 FR 69, January 3, 2007), ongoing maintenance and checks of control devices are necessary in order to ensure emissions control technology remains effective.<sup>27</sup>

Given these comments from ICAC, suppliers of air pollution control and monitoring technology, on the need for vigilance in maintaining equipment to stem degradation, the EPA is requesting comment on what steps, in addition to one-time initial emissions and capture efficiency testing, along with ongoing temperature measurement, might better ensure ongoing compliance with the standards.

The EPA specifically is requesting comment on whether performance testing should be required anytime a source plans to undertake an operational change that may adversely affect compliance with an applicable standard, operating limit, or parametric monitoring value. Any such requirement would include provisions to allow a source to make the change, but limit the change to a specific time before a test is required. We anticipate that a reasonable time limit under the new operations change would be approximately 30 days to allow adequate time for testing and developing a test report. The source would submit temperature and flow rate data during the test to establish new operating parameters. We specifically are requesting comment on this potential provision, including the time a source would be allowed to operate under the new parameters before they test, and what would constitute an operational change requiring testing.

<sup>27</sup> See Docket Item No. EPA–HQ–OAR–2004–0094–0173, available at [www.regulations.gov](http://www.regulations.gov). A copy of the ICAC’s comments on the proposed revisions to the General Provisions is also included in the Large Appliance Docket for this action.

<sup>26</sup> See <https://www.epa.gov/fera/dose-response-assessment-assessing-health-risks-associated-exposure-hazardous-air-pollutants>.

This approach on which we are requesting comment could also allow an exception from periodic testing for facilities using instruments to continuously measure emissions. Such continuous emissions monitoring systems (CEMS) would show actual emissions. Use of CEMS to demonstrate compliance would obviate the need for periodic oxidizer testing. Moreover, installation and operation of a CEMS with a timesharing component, such that values from more than one oxidizer exhaust could be tabulated in a recurring frequency, could prove less expensive (estimated to have an annual cost below \$15,000) than ongoing oxidizer testing.

The approach on which we are requesting comment would not require periodic testing or CEMS monitoring of facilities using the compliant materials option, or the emission-rate without add-on controls compliance option because these two compliance options do not use any add-on control efficiency measurements in the compliance calculations.

The approach would require air emissions testing to measure organic HAP destruction or removal efficiency at the inlet and outlet of the add-on control device, or measurement of the control device outlet concentration of organic HAP. Emissions would be measured as total gaseous organic mass emissions as carbon using either Method 25 or 25A of appendix A-7 to 40 CFR part 60, which are the methods currently required for the initial compliance demonstration.

We estimate that the cost to perform a control device emissions destruction or removal efficiency test using EPA Method 25 or 25A would be approximately \$19,000 per control device. The cost estimate is included in the memorandum titled *Costs/Impacts of the 40 CFR part 63 Subparts NNNN, OOOO and RRRR Monitoring Review Revisions*, in the Large Appliances Docket.

5. What compliance dates are we proposing?

The EPA is proposing that affected sources that commenced construction or reconstruction on or before September 12, 2018 must comply with all of the amendments, with the exception of the proposed electronic format for submitting notifications and semiannual compliance reports, no later than 181 days after the effective date of the final rule. Affected sources that commence construction or reconstruction after September 12, 2018 must comply with all requirements of the subpart, including the amendments being

proposed, with the exception of the proposed electronic format for submitting notifications and semiannual compliance reports, no later than the effective date of the final rule or upon startup, whichever is later. All affected facilities would have to continue to meet the current requirements of 40 CFR part 63, subpart NNNN until the applicable compliance date of the amended rule. The final action is not expected to be a "major rule" as defined by 5 U.S.C. 804(2), so the effective date of the final rule will be the promulgation date as specified in CAA section 112(d)(10).

For existing sources, we are proposing two changes that would impact ongoing compliance requirements for 40 CFR part 63, subpart NNNN. As discussed elsewhere in this preamble, we are proposing to add a requirement that notifications, performance test results, and semiannual compliance reports be submitted electronically using the new template. We are also proposing to change the requirements for SSM by removing the exemption from the requirements to meet the standard during SSM periods and by removing the requirement to develop and implement an SSM plan. Our experience with similar industries that are required to convert reporting mechanisms to install necessary hardware and software, become familiar with the process of submitting performance test results electronically through the EPA's CEDRI, test these new electronic submission capabilities, and reliably employ electronic reporting shows that a time period of a minimum of 90 days, and, more typically, 180 days is generally necessary to successfully accomplish these revisions. Our experience with similar industries further shows that this sort of regulated facility generally requires a time period of 180 days to read and understand the amended rule requirements; to evaluate their operations to ensure that they can meet the standards during periods of startup and shutdown as defined in the rule and make any necessary adjustments; and to update their operation, maintenance, and monitoring plan to reflect the revised requirements. The EPA recognizes the confusion that multiple different compliance dates for individual requirements would create and the additional burden such an assortment of dates would impose. From our assessment of the timeframe needed for compliance with the entirety of the revised requirements, the EPA considers a period of 180 days to be the most expeditious compliance period practicable and, thus, is proposing that

existing affected sources and new affected sources that commenced construction or reconstruction on or before September 12, 2018 be in compliance with all of this regulation's revised requirements, except for the requirement to use high efficiency spray equipment discussed below, within 181 days of the regulation's effective date.

Under CAA section 112(d), we are proposing compliance dates for the proposed requirement to use high efficiency spray equipment if the source is not using the emission rate with add-on control compliance option. For existing affected sources under this proposed action, we propose to provide sources three years after the effective date of the final rule to comply with the proposed requirement to use high efficiency spray equipment. We are proposing a 3-year compliance date for facilities that have not switched to high efficiency spray equipment because facilities that are not yet using high efficiency spray equipment have multiple alternative equipment types to consider under this proposed rule. The 3-year compliance period will provide all facilities sufficient time to source and purchase the specific type of spray application equipment compatible with their operations. Furthermore, the compliance period provides time for sources to verify that the spray equipment they choose meets the transfer efficiency requirements in this proposed rule. In addition, because a spray gun's useful lifespan is approximately two years, the proposed three-year compliance period will provide enough time for facilities to source and purchase replacement guns on their current equipment purchase cycle, develop any necessary operational procedures, and perform training. Finally, the 3-year compliance period will ensure that a facility is not required to replace a spray gun before it has time to identify and source new guns and develop bid specification and operation procedures. For new affected sources under this proposed action, the proposed compliance date is the effective date of the final rule or upon startup, whichever is later.

We solicit comment on these proposed compliance periods, and we specifically request submission of information from sources in this source category regarding specific actions that would need to be undertaken to comply with the proposed amended requirements and the time needed to make the adjustments for compliance with any of the revised requirements. We note that information provided may result in changes to the proposed compliance dates.

*B. What are the analytical results and proposed decisions for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category?*

1. What are the results of the risk assessment and analyses?

As described above in section III of this preamble, for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, we conducted a risk assessment for all HAP emitted.

We present results of the risk assessment briefly below and in more detail in the *Fabrics and Other Textiles Risk Assessment Report* in the Fabrics and Other Textiles Docket (Docket ID No. EPA-HQ-OAR-2017-0668).

a. Inhalation Risk Assessment Results

Table 3 below provides a summary of the results of the inhalation risk assessment for the source category. As discussed in section III.C.2 of this

preamble, we determined that MACT-allowable HAP emission levels at fabrics and other textiles printing, coating, and dyeing facilities are equal to 1.1 times the actual emissions. For more detail about the MACT-allowable emission levels, see Appendix 1 to the *Fabrics and Other Textiles Risk Assessment Report* in the Fabrics and Other Textiles Docket.

**TABLE 3—PRINTING, COATING, AND DYEING OF FABRICS AND OTHER TEXTILES SOURCE CATEGORY INHALATION RISK ASSESSMENT RESULTS**

Risk assessment	Maximum individual cancer risk (in 1 million)		Estimated population at increased risk of cancer ≥1-in-1 million		Estimated annual cancer incidence (cases per year)		Maximum chronic noncancer TOSHI <sup>1</sup>		Maximum screening acute noncancer HQ <sup>2</sup>
	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions
Source Category .....	9	10	8,500	10,000	0.002	0.002	0.3	0.3	HQ <sub>REL</sub> = 0.6
Whole Facility .....	9	.....	12,200	.....	0.003	.....	0.3	.....	

<sup>1</sup> The TOSHI is the sum of the chronic noncancer HQ for substances that affect the same target organ or organ system.  
<sup>2</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop HQ values.

The results of the inhalation risk modeling using actual emissions data, as shown in Table 3 above, indicate that the maximum individual cancer risk based on actual emissions (lifetime) could be up to 9-in-1 million, the maximum chronic noncancer TOSHI value based on actual emissions could be up to 0.3, and the maximum screening acute noncancer HQ value (off-facility site) could be up to 0.6. The total estimated annual cancer incidence (national) from these facilities based on actual emission levels is 0.002 excess cancer cases per year, or one case in every 500 years.

b. Acute Risk Results

Table 3 also shows the acute risk results for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category. The screening analysis for acute impacts was based on an industry-specific multiplier of 1.4, to estimate the peak emission rates from the average emission rates. For more detailed acute risk results refer to the *Fabrics and Other Textiles Risk Assessment Report* in the Fabrics and Other Textiles Docket.

c. Multipathway Risk Screening Results

We did not identify any PB-HAP emitted by facilities in this source category. Therefore, we do not expect

any human health multipathway risks as a result of emissions from this source category.

d. Environmental Risk Screening Results

The emissions data for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category indicate that no environmental HAP are emitted by sources within this source category. Therefore, we did not conduct a screening-level evaluation of the potential adverse environmental risks associated with emissions from the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category. We do not expect an adverse environmental effect as a result of HAP emissions from this source category.

e. Facility-Wide Risk Results

The results of our facility-wide assessment indicate that 12 facilities have a facility-wide cancer MIR greater than or equal to 1-in-1 million. The maximum facility-wide cancer MIR is 9-in-1 million, driven by ethylene oxide from fabric finishing. The total estimated cancer incidence from the whole facility assessment is 0.003 excess cancer cases per year, or one excess case in every 330 years. Approximately 12,200 people were estimated to have cancer risks above 1-

in-1 million from exposure to HAP emitted from both MACT and non-MACT sources collocated at the 43 facilities in this source category. The maximum facility-wide TOSHI for the source category is estimated to be 0.3, driven by emissions of trichloroethylene from adhesive application.

f. What demographic groups might benefit from this regulation?

To examine the potential for any environmental justice issues that might be associated with the source category, we performed a demographic analysis, which is an assessment of risks to individual demographic groups of the populations living within 5 km and within 50 km of the facilities. In the analysis, we evaluated the distribution of HAP-related cancer and noncancer risks from the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category across different demographic groups within the populations living near facilities.<sup>28</sup>

The results of the demographic analysis are summarized in Table 4 of this preamble. These results, for various demographic groups, are based on the estimated risks from actual emissions levels for the population living within 50 km of the facilities.

<sup>28</sup> Demographic groups included in the analysis are: White, African American, Native American, other races and multiracial, Hispanic or Latino,

children 17 years of age and under, adults 18 to 64 years of age, adults 65 years of age and over, adults without a high school diploma, people living below

the poverty level, people living above the poverty level, and linguistically isolated people.

TABLE 4—PRINTING, COATING, AND DYEING OF FABRICS AND OTHER TEXTILES SOURCE CATEGORY DEMOGRAPHIC RISK ANALYSIS RESULTS

	Nationwide	Population with cancer risk at or above 1-in-1 million due to printing, coating, and dyeing of fabrics and other textiles	Population with chronic noncancer HI above 1 due to printing, coating, and dyeing of fabrics and other textiles
Total Population .....	317,746,049	8,500	0
<b>White and Minority by Percent</b>			
White .....	62	54	0
Minority .....	38	46	0
<b>Minority Detail by Percent</b>			
African American .....	12	39	0
Native American .....	0.8	0.02	0
Hispanic or Latino .....	18	5	0
Other and Multiracial .....	7	2	0
<b>Income by Percent</b>			
Below the Poverty Level .....	14	26	0
Above the Poverty Level .....	86	74	0
<b>Education by Percent</b>			
Over 25 Without High a School Diploma .....	14	21	0
Over 25 With a High School Diploma .....	86	79	0

The results of the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category demographic analysis indicate that emissions from the source category expose approximately 8,500 people to a cancer risk at or above 1-in-1 million and no one to a chronic noncancer hazard index greater than 1. The percentages of the at-risk population in the following specific demographic groups are higher than their respective nationwide percentages: “African American,” “Over 25 Without a HS Diploma,” and “Below the Poverty Level.”

The methodology and the results of the demographic analysis are presented in a technical report, *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Printing, Coating, and Dyeing of Fabrics and Other Textiles Source Category Operations*, September 2017 (hereafter referred to as the *Fabrics and Other Textiles Demographic Analysis Report*), available in the Fabrics and Other Textiles Docket.

2. What are our proposed decisions regarding risk acceptability, ample margin of safety, and adverse environmental effects?

a. Risk Acceptability

As noted in section III.A of this preamble, we weigh all health risk factors in our risk acceptability determination, including the cancer MIR, the number of persons in various cancer and noncancer risk ranges, cancer incidence, the maximum noncancer TOSHI, the maximum acute noncancer HQ, the extent of noncancer risks, the distribution of cancer and noncancer risks in the exposed population, and risk estimation uncertainties (54 FR 38044, September 14, 1989).

For the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, the risk analysis indicates that the cancer risks to the individual most exposed could be up to 9-in-1 million due to actual emissions and up to 10-in-1 million based on allowable emissions. These risks are considerably less than 100-in-1 million, which is the presumptive upper limit of acceptable risk. The risk analysis also shows very low cancer incidence (0.002 cases per year for actual emissions and allowable emissions), and we did not identify

potential for adverse chronic noncancer health effects. The acute noncancer risks based on actual emissions is below an HQ of one for all facilities (maximum of 0.6 for formaldehyde). Therefore, we find there is little potential concern of acute noncancer health impacts from actual emissions. In addition, the risk assessment indicates no significant potential for multipathway health effects.

Considering all of the health risk information and factors discussed above, including the uncertainties discussed in section III.C.7 of this preamble, we propose that the risks from the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category are acceptable.

b. Ample Margin of Safety Analysis

Although we are proposing that the risks from the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category are acceptable, risk estimates for approximately 8,500 individuals in the exposed population are above 1-in-1 million at the actual emissions level and 10,000 individuals in the exposed population are above 1-in-1 million at the allowable emissions level. Consequently, we further considered whether the MACT standards for the Printing, Coating, and

Dyeing of Fabrics and Other Textiles source category provide an ample margin of safety to protect public health. In this ample margin of safety analysis, we investigated available emissions control options that might reduce the risk from the source category. We considered this information along with all of the health risks and other health information considered in our determination of risk acceptability.

As described in section III.B of this preamble, our technology review focused on identifying developments in practices, processes, and control technologies for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, and we reviewed various information sources regarding emission sources that are currently regulated by the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. Based on our review, we did not identify any developments in add-on control technologies, other equipment or work practices and procedures since the promulgation of the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. We note, however, that the only facility that reported ethylene oxide emissions no longer emits this HAP as a result of a process change, as discussed below in the technology review discussion. Therefore, we are proposing that additional emissions controls for this source category are not necessary to provide an ample margin of safety.

### c. Environmental Effects

The emissions data for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category indicate that no environmental HAP are emitted by sources within this source category and we are unaware of any adverse environmental effects caused by HAP emitted from this source category. Therefore, we do not expect there to be an adverse environmental effect as a result of HAP emissions from this source category and we are proposing that it is not necessary to set a more stringent standard to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.

### 3. What are the results and proposed decisions based on our technology review?

As described in section III.B of this preamble, our technology review focused on identifying developments in practices, processes, and control technologies for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, and the EPA

reviewed various information sources regarding emission sources that are currently regulated by Fabrics and Other Textiles NESHAP. These emission sources include coating and printing, dyeing and finishing, and slashing of fabrics and other textiles. Based on our review, we identified one potential development in technology, a process change that eliminated the use of ethylene oxide at one facility. During a recent site visit to the facility, we learned that the ethylene oxide emissions were, in fact, overstated by the facility. The facility confirmed that it no longer uses the ethylene oxide-containing material due to cost. We note that this was the only facility that reported ethylene oxide emissions, and we conclude that ethylene oxide-containing materials are no longer used in the industry, based on our information. We did not identify any other developments in add-on control technologies, other equipment, or work practices and procedures since the promulgation of the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. A brief summary of the EPA's findings in conducting the technology review of fabric printing, coating, and dyeing operations follows. For a detailed discussion of the EPA's findings, refer to the *Fabrics and Other Textiles Technology Review Memorandum* in the Fabrics and Other Textiles Docket.

The technology basis for coating and printing subcategory operations under the original MACT standards in the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP was emission capture and add-on control with an overall control efficiency of 97 percent for existing sources and 98 percent for new or reconstructed sources. During development of that rulemaking, we evaluated the use of alternative coatings (*i.e.*, waterborne, ultraviolet-curable, electron-beam (EB)-curable, and thermal (a.k.a., hot-melt)) and more stringent standards than the MACT floor level of control for organic HAP. EB-curable coatings are coatings that use an electron beam as the radiant energy source to initiate a photochemical reaction to generate a crosslinked network of polymer on the substrate surface. However, we did not adopt any of these alternatives because they were not universally applicable and could not achieve the needed characteristics for numerous types of products (67 FR 46028, July 11, 2002).

The technology basis for dyeing and finishing subcategory operations at existing sources and new or reconstructed sources under the original MACT standards in the Printing,

Coating, and Dyeing of Fabrics and Other Textiles NESHAP was the use of low-HAP materials (*i.e.*, the purchased materials used in the dyes and finishes applied at a facility). During development of that rulemaking, we found that add-on capture and control systems for organic HAP were not used at that time by the industry for dyeing and finishing operations, and no beyond-the-floor technology was identified (67 FR 46028, July 11, 2002).

The technology basis for the slashing subcategory operations at existing sources and new or reconstructed sources under original MACT standards in the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP was the use of zero organic HAP materials. For these materials, each organic HAP that is not an OSHA-defined carcinogen that is measured to be present at less than one percent by weight is counted as zero. We found that no add-on emission capture and control systems for organic HAP were used by the industry. During development of that rulemaking, we identified no beyond-the-floor technology that could achieve a lower organic HAP content in materials "as purchased" than zero percent HAP (67 FR 46028, July 11, 2002).

Using the RBLC database, we identified seven entries for facilities currently subject to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. We reviewed the state operating permits for the seven facilities to determine if any are using technologies that exceed MACT. Six of the seven permits included VOC emission limitations issued prior to promulgation of the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. All seven facilities entered in the RBLC database indicated they were meeting their VOC limits using solvent substitution, solvent reformulation, low VOC adhesives, or condensation controls. However, the VOC limits for four facilities were either annual, monthly, or daily VOC emission limits. The remaining limits for three facilities were VOC limits that were at least several times higher than the HAP content limits in 40 CFR part 63, subpart OOOO for the same subcategories. Because none of these limitations were more stringent than the HAP content limits, none of these limitations represented a development in practices, processes, and control technologies for this source category.

Using the EPA's NEI and the ECHO databases, we identified 43 facilities (including the seven facilities mentioned above) that are currently subject to the Printing, Coating, and



Dyeing of Fabrics and Other Textiles NESHAP. We reviewed their state operating permits to determine the subcategory operations being performed and the type of control used for those subcategories to comply with the NESHAP. Our review of the state operating permits found that the facilities using PTEs and add-on controls (e.g., carbon adsorbers and thermal or catalytic oxidizers) were using them only on fabric coating lines. We did not find any facilities in the printing, dyeing and finishing, or slashing subcategories using add-on controls for any of the other subcategories. The use of add-on controls is found for the same subcategories for which they were found at the time of MACT development. That is, facilities in the coating and printing subcategory are using add-on controls and facilities in the dyeing and finishing subcategory are using low-HAP coatings and are not using add-on controls. (We found very few facilities that were performing both coating and printing and no facilities performing just printing; most facilities subject to 40 CFR part 63, subpart OOOO were performing coating, but not printing.)

For the dyeing and finishing, and slashing subcategories, no facilities are using add-on controls to comply. The technology basis for these subcategories was the use of low-HAP (dyeing and finishing) and non-HAP materials (slashing). We have not identified any other process change or pollution prevention alternatives that could be applied to these two subcategories that would further reduce the emissions from these two subcategories.

Finally, we identified no developments in work practices or procedures for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category. However, we note that the one facility that previously reported ethylene oxide has eliminated its use through a process change, and we solicit comment on whether the agency should ban the use of ethylene oxide in this source category under the technology review. The current Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP requires affected sources using add-on controls as a compliance strategy to develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established. The current work practice requirements address all of the potential emission sources that are normally located

outside of the PTE that is routed to the control device, and no new measures have been identified to further reduce the emissions from these sources.

Based on a finding of no new developments in practices, processes, and control technologies in the technology review for printing, coating, and dyeing operations, we are not proposing to revise the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP emission limit requirements pursuant to CAA section 112(d)(6). For further discussion of the technology review results, refer to the *Fabrics and Other Textiles Technology Review Memorandum* in the Fabrics and Other Textiles Docket.

#### 4. What other actions are we proposing?

In the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, we are proposing to require electronic submittal of notifications, semiannual reports, and compliance reports (which include performance test reports). In addition, we are proposing revisions to the SSM provisions of the MACT rule in order to ensure that they are consistent with the Court decision in *Sierra Club v. EPA*, 551 F. 3d 1019 (D.C. Cir. 2008), which vacated two provisions that exempted sources from the requirement to comply with otherwise applicable CAA section 112(d) emission standards during periods of SSM. We also are proposing the addition of EPA Method 18, IBR of an alternative test method, and various technical and editorial changes. Our analyses and proposed changes related to these issues are discussed in the sections below.

Though we are not proposing to change reporting frequency currently in the rule, we are requesting comment on changing the reporting frequency for all reports to EPA from semi-annual to annual due to the potential redundancy of these reporting requirements. We recognize that Title V permits have a statutory requirement for semi-annual reports, which are generally reported to state regulatory agencies. However, we are not certain that changing the report frequency for just the reports submitted to EPA in this NESHAP will result in a reporting and recordkeeping burden reduction. We request comment and supporting information on the burden impact of changing the reporting requirement to annual for the reporting to EPA.

##### a. Electronic Reporting Requirements

The EPA is proposing that owners and operators of facilities subject to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP submit

electronic copies of initial notifications required in 40 CFR 63.9(b), notifications of compliance status required in 40 CFR 63.9(h), performance test reports, and semiannual reports through the EPA's CDX, using the CEDRI. A description of the EPA's CDX and the EPA's proposed rationale and details on the addition of these electronic reporting requirements for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category is the same as for the Surface Coating of Large Appliances source category as discussed in section IV.A.4.a of this preamble. For further information regarding the electronic data submission process, please refer to the memorandum titled *Electronic Reporting for Printing, Coating, and Dyeing of Fabrics and Other Textiles, Subpart OOOO*, May 2018, in the Fabrics and Other Textiles Docket. No specific form is proposed at this time for the initial notifications required in 40 CFR 63.9(b) and notifications of compliance status required in 40 CFR 63.9(h). Until the EPA has completed electronic forms for these notifications, the notifications will be required to be submitted via CEDRI in PDF. After development of the final forms, we will notify sources about their availability via the CEDRI website and the Clearinghouse for Inventories and Emissions Factors (CHIEF) Listserv. For semiannual reports, the EPA proposes that owners or operators use the appropriate spreadsheet template in CEDRI for 40 CFR part 63, subpart OOOO, or an alternate electronic file format consistent with the form's extensible markup language schema. For further information regarding the electronic data submission process, please refer to the spreadsheet template attached to the memorandum titled *Electronic Reporting Template for Printing, Coating, and Dyeing of Fabrics and Other Textiles, Subpart OOOO Semiannual Reports*, May 2018, in the Fabrics and Other Textiles Docket. We specifically request comment on the format and usability of the template (e.g., filling and uploading a provided spreadsheet versus entering the required information into a fillable CEDRI web form), as well as the content, layout, and overall design of the template. Prior to availability of the final semiannual compliance report template in CEDRI, owners or operators of affected sources will be required to submit semiannual compliance reports as otherwise required by the Administrator. After development of the final template, we will notify sources about its availability via the CEDRI website and the CHIEF

Listserv.<sup>29</sup> We plan to finalize a required reporting format with the final rule. The owner or operator would begin submitting reports electronically with the next report that is due, once the electronic template has been available for at least one year.

Regarding submittal of performance test reports via EPA's ERT, as discussed in section IV.A.4.a of this preamble for the Surface Coating of Large Appliances NESHAP, the proposal to submit performance test data electronically to the EPA applies only if the EPA has developed an electronic reporting form for the test method as listed on the EPA's ERT website. For the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP, most of the EPA test methods (including EPA Methods 25 and 25A) listed under 40 CFR part 63, subpart OOOO, are currently supported by the ERT. As discussed in section IV.A.4.a of this preamble, we are proposing that performance test results collected using test methods that are not supported by the ERT as listed on the EPA's ERT website at the time of the test be submitted in PDF using the attachment module of the ERT.

Also, as discussed in section IV.A.4.a of this preamble for the Surface Coating of Large Appliances NESHAP, we are proposing to provide facilities with the ability to seek extensions for submitting electronic reports for circumstances beyond the control of the facility. In proposed 40 CFR 63.4311(f), we address the situation for facilities subject to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP where an extension may be warranted due to outages of the EPA's CDX or CEDRI, which may prevent access to the system and submittal of the required reports. In proposed 40 CFR 63.4311(g), we address the situation for facilities subject to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP where an extension may be warranted due to a force majeure event, which is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents compliance with the requirement to submit a report electronically as required by this rule.

#### b. Startup, Shutdown and Malfunction Requirements

##### 1. Proposed Elimination of the SSM Exemption

The EPA is proposing to eliminate the SSM exemption in the Printing, Coating,

and Dyeing of Fabrics and Other Textiles NESHAP. The EPA's proposed rationale for the elimination of the SSM exemption for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category is the same as for the Surface Coating of Large Appliances source category, which is discussed in section IV.A.4.b.1 of this preamble. We are also proposing several revisions to Table 3 to subpart OOOO of 40 CFR part 63 (*Applicability of General Provisions to Subpart OOOO*, hereafter referred to as the "General Provisions table to subpart OOOO") as is explained in more detail below in section IV.B.4.b.2 of this preamble. For example, we are proposing to eliminate the incorporation of the General Provisions' requirement that the source develop an SSM plan. We are also proposing to delete 40 CFR 63.4342(h), which specifies that deviations during SSM periods are not violations. Further, we are proposing to eliminate and revise certain recordkeeping and reporting requirements related to the SSM exemption as further described below. The EPA has attempted to ensure that the provisions we are proposing to eliminate are inappropriate, unnecessary, or redundant in the absence of the SSM exemption. We are specifically seeking comment on the specific proposed deletions and revisions and also whether additional provisions should be revised to achieve the stated goal.

In proposing these rule amendments, the EPA has taken into account startup and shutdown periods and, for the same reasons explained in section IV.A.4.b.1 of this preamble for the Surface Coating of Large Appliances source category, has not proposed alternate standards for those periods in the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. Although no statutory language compels the EPA to set standards for malfunctions, the EPA has the discretion to do so where feasible, as further discussed in section IV.A.4.b.1 of this preamble for the Surface Coating of Large Appliances source category. It is unlikely that a malfunction of sources in the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category would result in a violation of the standards for those facilities using the compliant material or the emission rate without add-on controls option, since they meet the emission limits without using add-on controls. It is also unlikely that facilities using the add-on control option to meet the emission limits would experience a malfunction that would result in a violation, since

compliance with the surface coating emission limits is based on a rolling 12-month compliance period. However, it is not inevitable that a malfunction would result in a violation of the standards for those facilities using add-on controls; therefore, we are considering the need for a work practice for periods of malfunction for these facilities. In fact, the EPA has received information that it is possible that a control device malfunction for sources in the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category could potentially result in an emissions increase and potential violation of the emissions limit. During these periods, it is possible that an immediate line shutdown may not be feasible due to safety concerns, and concerns that an immediate shutdown would result in the unnecessary generation of hazardous wastes. In those cases, it may be appropriate to establish a standard for malfunctions. Given the fact that emissions testing during malfunctions is both economically and technically infeasible, we would anticipate that a separate standard would be in the form of a work practice standard. We are, therefore, soliciting information on industry best practices and the best level of emission control during malfunction events for the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category. We are also soliciting information on the cost savings associated with these practices. In addition, we are soliciting specific supporting data on organic HAP emissions during malfunction events for this category, including the cause of malfunction, the frequency of malfunction, duration of malfunction, and the estimate of organic HAP emitted during each malfunction. We also are asking specifically for comment on the use of CEMS by facilities in this source category as a method to better quantify organic HAP emissions during malfunctions and normal operation.

In the unlikely event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. Refer to section IV.A.4.b.1 of this preamble for further discussion of the EPA's actions in response to a source failing to comply with the applicable CAA section 112(d) standards as a result of a malfunction

<sup>29</sup> <https://www.epa.gov/air-emissions-inventories/air-emissions-inventory-listservs>.

event for the Surface Coating of Large Appliances source category, which applies to this source category.

## 2. Proposed Revisions to the General Provisions Applicability Table

### a. 40 CFR 63.4300(b) General Duty

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.6(e)(1)(i) by changing the “yes” in column 3 to a “no.” Section 63.6(e)(1)(i) describes the general duty to minimize emissions. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. We are proposing instead to add general duty regulatory text at 40 CFR 63.4300(b) that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption, there is no need to differentiate between normal operations, startup and shutdown, and malfunction events in describing the general duty. Therefore, the language the EPA is proposing for 40 CFR 63.4300(b) does not include that language from 40 CFR 63.6(e)(1).

We are also proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.6(e)(1)(ii) by changing the “yes” in column 3 to a “no.” Section 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant with the general duty requirement being added at 40 CFR 63.4300(b).

### b. SSM Plan

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.6(e)(3) by changing the “yes” in column 3 to a “no.” Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. We are also proposing to remove from 40 CFR part 63, subpart OOOO, the current provisions requiring the SSM plan in 40 CFR 63.4300(c) and requiring reporting related to the SSM plan in 40 CFR 63.4310(c)(9)(iv). As noted, the EPA is proposing to remove the SSM exemptions. Therefore, affected units will be subject to an emission standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive to plan for and achieve

compliance, and, thus, the SSM plan requirements are no longer necessary.

### c. Compliance With Standards

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.6(f)(1) by changing the “yes” in column 3 to a “no.” The current language of 40 CFR 63.6(f)(1) exempts sources from non-opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club* vacated the exemptions contained in this provision and held that the CAA requires that some CAA section 112 standards apply continuously. Consistent with *Sierra Club*, the EPA is proposing to revise standards in this rule to apply at all times.

We are also proposing to remove rule text in 40 CFR 63.4341(e)(4) and (f)(4) and 40 CFR 63.4351(d)(4) clarifying that, in calculating emissions to demonstrate compliance, deviation periods must include deviations during an SSM period. Since the EPA is removing the SSM exemption, this clarifying text is no longer needed.

### d. 40 CFR 63.4360 Performance Testing

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.7(e)(1) by changing the “yes” in column 3 to a “no.” Section 63.7(e)(1) describes performance testing requirements. The EPA is instead proposing to add a performance testing requirement at 40 CFR 63.4360. The performance testing requirements we are proposing to add differ from the General Provisions performance testing provisions in several respects. The regulatory text does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and language that precluded startup and shutdown periods from being considered “representative” for purposes of performance testing. Also, the proposed performance testing provisions will not allow performance testing during startup or shutdown. As in 40 CFR 63.7(e)(1), performance tests conducted under this subpart should not be conducted during malfunctions because conditions during malfunctions are often not representative of normal operating conditions. Section 63.7(e) requires that the owner or operator maintain records of the process information necessary to document operating conditions during the test and include in such records an explanation to support that such conditions represent normal operation. The EPA is proposing to add language clarifying

that the owner or operator must make such records available to the Administrator upon request.

### e. Monitoring

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.8(c)(1)(i) and (iii) by changing the “yes” in column 3 to a “no.” The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)). Further, we are proposing to revise the General Provisions table to subpart NNNN (table 3) entry for 40 CFR 63.8(c)(1)(ii) by changing the “yes” in column 3 to a “no.” We have determined that 40 CFR 63.8(c)(1)(ii) is redundant to the current monitoring requirement in 40 CFR 63.4364(a)(6) (*i.e.*, “maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment”), except 40 CFR 63.8(c)(1)(ii) requires that necessary parts be “readily” available. We are proposing to revise 40 CFR 63.4967(a)(4) to replace “maintaining” with specify “keeping readily available.”

### f. 40 CFR 63.4312 Recordkeeping

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.10(b)(2)(i) by changing the “yes” in column 3 to a “no.” Section 63.10(b)(2)(i) describes the recordkeeping requirements during startup and shutdown. These recording provisions are no longer necessary because the EPA is proposing that recordkeeping and reporting applicable to normal operations will apply to startup and shutdown. In the absence of special provisions applicable to startup and shutdown, such as a startup and shutdown plan, there is no reason to retain additional recordkeeping for startup and shutdown periods.

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.10(b)(2)(ii) by changing the “yes” in column 3 to a “no.” Section 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction, requiring a record of “the occurrence and duration of each malfunction.” A similar record is already required in 40 CFR 63.4312(i), which requires a record of “the date, time, and duration of each deviation,”

which the EPA is retaining. The regulatory text in 40 CFR 63.4312(i) differs from the General Provisions in that the General Provisions requires the creation and retention of a record of the occurrence and duration of each malfunction of process, air pollution control, and monitoring equipment; whereas 40 CFR 63.4312(i) applies to any failure to meet an applicable standard and is requiring that the source record the date, time, and duration of the failure rather than the “occurrence.” The EPA is also proposing to add to 40 CFR 63.4312(i) a requirement that sources also keep records that include a list of the affected source or equipment and actions taken to minimize emissions, an estimate of the quantity of each regulated pollutant emitted over the emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions. Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters (e.g., coating HAP content and application rates and control device efficiencies). We also propose to revise 40 CFR 63.4312(i) to clarify that, if an owner or operator uses the equivalent emission rate option to comply with this subpart, the applicable information reported as currently required in 40 CFR 63.4311(a)(8)(ii) through (iv) satisfies the requirement to keep a record of the estimate of the quantity of each regulated pollutant for which the source failed to meet the standard and a description of the method used to estimate the emissions. The EPA proposes to require that sources keep records of this information to ensure that there is adequate information to allow the EPA to determine the severity of any failure to meet a standard, and to provide data that may document how the source met the general duty to minimize emissions when the source has failed to meet an applicable standard.

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.10(b)(2)(iv) by changing the “yes” in column 3 to a “no.” When applicable, the provision requires sources to record actions taken during SSM events when actions were inconsistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required. The requirement previously applicable under 40 CFR 63.10(b)(2)(iv)(B) to record actions to minimize emissions and record

corrective actions is now applicable by reference to 40 CFR 63.4312(i)(5).

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.10(b)(2)(v) by changing the “yes” in column 3 to a “no.” When applicable, the provision requires sources to record actions taken during SSM events to show that actions taken were consistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required.

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.10(c)(15) by changing the “yes” in column 3 to a “no.” The EPA is proposing that 40 CFR 63.10(c)(15) no longer apply. When applicable, the provision allows an owner or operator to use the affected source’s SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA is proposing to eliminate this requirement because SSM plans would no longer be required, and, therefore, 40 CFR 63.10(c)(15) no longer serves any useful purpose for affected units.

We are proposing to remove the requirement in 40 CFR 63.4312(j)(1) that deviation records specify whether deviations from a standard occurred during a period of SSM. This revision is being proposed due to the proposed removal of the SSM exemption and because, as discussed above in this section, we are proposing that deviation records must specify the cause of each deviation, which could include a malfunction period as a cause. We are also proposing to remove the requirement to report the SSM records in 40 CFR 63.6(e)(3)(iii) through (v) by deleting 40 CFR 63.4312(j)(2).

#### g. 40 CFR 63.4311 Reporting

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.10(d)(5) by changing the “yes” in column 3 to a “no.” Section 63.10(d)(5) describes the reporting requirements for startups, shutdowns, and malfunctions. To replace the General Provisions reporting requirement, the EPA is proposing to add reporting requirements to 40 CFR 63.4311. The replacement language differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We are proposing language that requires sources that fail to meet an applicable standard at any time to report the information concerning such events in the semi-

annual compliance report already required under this rule. Subpart OOOO currently requires reporting of the date, time period, and cause of each deviation. We are clarifying in the rule that, if the cause of a deviation from a standard is unknown, this should be specified in the report. We are also proposing to change “date and time period” or “date and time” to “date, time, and duration” (see proposed revisions to 40 CFR 63.4311(a)(7)(vii), (a)(7)(ix), and (a)(7)(xiv)) to use terminology consistent with the recordkeeping section. Further, we are proposing that the report must also contain the number of deviations from the standard and a list of the affected sources or equipment. For deviation reports addressing deviations from an applicable emission limit in Table 1 to subpart OOOO or operating limit in Table 2 to subpart OOOO, we are proposing that the report also include an estimate of the quantity of each regulated pollutant emitted over any emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions. For deviation reports addressing deviations from work practice standards associated with the emission rate with add-on controls option (see proposed revisions to 40 CFR 63.4311(a)(7)(xiv)), we are retaining the current requirement (including reporting actions taken to correct the deviation), except that we are revising the rule language to reference the new general duty requirement in 40 CFR 63.4200(b), we are clarifying that the description of the deviation must include a list of the affected sources or equipment and the cause of the deviation, we are clarifying that “time period” includes the “time and duration,” and we are requiring that the report include the number of deviations from the work practice standards in the reporting period.

Regarding the proposed new requirement discussed above to estimate the quantity of each regulated pollutant emitted over any emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions, examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters (e.g., coating HAP content and application rates and control device efficiencies). The EPA is proposing this requirement to ensure that there is adequate information to determine compliance, to allow the EPA to

determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

We will no longer require owners or operators to determine whether actions taken to correct a malfunction are consistent with an SSM plan, because plans would no longer be required. The proposed amendments, therefore, eliminate 40 63.4311(c) that requires reporting of whether the source deviated from its SSM plan, including required actions to communicate with the Administrator, and the cross reference to 40 CFR 63.10(d)(5)(i) that contains the description of the previously required SSM report format and submittal schedule from this section. These specifications are no longer necessary because the events will be reported in otherwise required reports with similar format and submittal requirements.

We are proposing to revise the General Provisions table to subpart OOOO (table 3) entry for 40 CFR 63.10(d)(5)(ii) by changing the “yes” in column 3 to a “no.” Section 63.10(d)(5)(ii) describes an immediate report for startups, shutdown, and malfunctions when a source failed to meet an applicable standard, but did not follow the SSM plan. We will no longer require owners and operators to report when actions taken during a startup, shutdown, or malfunction were not consistent with an SSM plan, because plans would no longer be required.

We are proposing to remove the requirements in 40 CFR 63.4311(a)(7)(ix) that deviation reports must specify whether a deviation from an operating limit occurred during a period of SSM. We are also proposing to remove the requirements in 40 CFR 63.4311(a)(7)(xi) to break down the total duration of deviations into the startup and shutdown categories. As discussed above in this section, we are proposing to require reporting of the cause of each deviation. Further, the startup and shutdown categories no longer apply because these periods are proposed to be considered normal operation, as discussed in section IV.A.4.b.1 of this preamble for the Surface Coating of Large Appliances source category, which also applies to this source category.

#### c. Technical Amendments to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP

We propose to amend 40 CFR 63.4331, Equation 7; 40 CFR 63.4350(a)(3) and (b)(3); and 40 CFR

63.4351(a) and (e) to correct the references to the alternative control device outlet organic HAP concentration limit from 20 parts per million by weight (ppmw) to 20 ppmv. The reference to ppmw was incorrect and inconsistent with the rest of the NESHAP.

We propose to amend 40 CFR 63.4362(b) to add the option of conducting EPA Method 18 of appendix A to 40 CFR part 60 “Measurement of Gaseous Organic Compound Emissions by Gas Chromatography” to measure and then subtract methane emissions from measured total gaseous organic mass emissions as carbon. Facilities using the emission rate with add-on control compliance option can use either EPA Method 25 or Method 25A to measure control device destruction efficiency. Unlike EPA Method 25, Method 25A does not exclude methane from the measurement of organic emissions. Because exhaust streams from coating operations may contain methane from natural gas combustion, we are proposing to allow facilities the option to measure methane using Method 18 and to subtract the methane from the emissions as part of their compliance calculations. We also propose to revise the format of references to test methods in 40 CFR part 60. The current reference in 40 CFR 63.4362(a) and (b) to Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 25, and 25A specify that each method is in “appendix A” of part 60. Appendix A of part 60 has been divided into appendices A–1 through A–8. We propose to revise each reference to appendix A to indicate which of the eight sections of appendix A applies to the method.

EPA is proposing to amend 40 CFR 63.4321(e)(1)(i)(A) and (e)(1)(iv), which describe how to demonstrate initial compliance with the emission limitations using the compliant material option, to remove reference to paragraph (d)(4) of OSHA’s Hazard Communication standard, which dealt with OSHA-defined carcinogens. EPA is proposing to replace that reference with its own list of hazardous air pollutants that must be regarded as potentially carcinogenic based on EPA guidelines. Although paragraph (d)(4) of OSHA’s standard was deleted when the Agency adopted the Globally Harmonized System of Hazard Communication in 2012, it was replaced by section A.6.4.2 of mandatory Appendix A of that standard, which reads as follows:

“Where OSHA has included cancer as a health hazard to be considered by classifiers for a chemical covered by 29 CFR part 1910, subpart Z, Toxic and

Hazardous Substances, chemical manufacturers, importers, and employers shall classify the chemical as a carcinogen.” Thus, where OSHA has regulated workplace exposure to a chemical based, at least in part, on carcinogenic risk, OSHA requires the chemical to be classified as a carcinogen. OSHA suggests that EPA should refer to section A.6.4.2 of Appendix A of 29 CFR 1910.1200 in its discussion of section 63.4141 and consider chemicals that meet this requirement be considered “OSHA-defined carcinogens.”

We also propose to remove the same reference in the definition of “No organic HAP” in 40 CFR 63.4371. We propose to replace these references to OSHA-defined carcinogens at 29 CFR 1910.1200(d)(4) with a list (in proposed new Table 6 to subpart OOOO) of those organic HAP that must be included in calculating total organic HAP content of a coating material if they are present at 0.1 percent or greater by mass.

We propose to include organic HAP in proposed Table 6 to subpart OOOO if they were categorized in the EPA’s *Prioritized Chronic Dose-Response Values for Screening Risk Assessments* (dated May 9, 2014) as a “human carcinogen,” “probable human carcinogen,” or “possible human carcinogen” according to *The Risk Assessment Guidelines of 1986* (EPA/600/8–87/045, August 1987),<sup>30</sup> or as “carcinogenic to humans,” “likely to be carcinogenic to humans,” or with “suggestive evidence of carcinogenic potential” according to the *Guidelines for Carcinogen Risk Assessment* (EPA/630/P–03/001F, March 2005).

We propose to revise the monitoring provisions for thermal and catalytic oxidizers to clarify that a thermocouple is part of the temperature indicator referred to in 40 CFR 63.4364(c) for purposes of performing periodic calibration and verification checks.

Current 40 CFR 63.4931(a) allows records, “where appropriate,” to be maintained as “electronic spreadsheets” or a “data base.” We propose to add clarification to this provision that the allowance to retain electronic records applies to all records that were submitted as reports electronically via the EPA’s CEDRI. We also propose to add text to the same provision clarifying that this ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a

<sup>30</sup> See <https://www.epa.gov/fera/dose-response-assessment-assessing-health-risks-associated-exposure-hazardous-air-pollutants>.

delegated air agency or the EPA as part of an on-site compliance evaluation.

We propose to revise a reporting requirement in 40 CFR 63.4342(f) to harmonize the requirement with the same reporting requirement in 40 CFR 63.4311(a)(4). Section 40 CFR 63.4342(f) requires “If there were no deviations from the applicable emission limit in Table 1 to this subpart,” then the source (*i.e.*, coating/printing or dyeing/finishing operation) must submit a statement that the source is “in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in Table 1 to this subpart, and you achieved the operating limits required by § 63.4292 and the work practice standards required by § 63.4293 during each compliance period.” We are proposing to revise the text; “If there were no deviations from the applicable emission limit in Table 1 to this subpart,” to read “If there were no deviations from the applicable emission limitations in §§ 63.4290, 63.4292, and 63.4293.” This revised text will be consistent with the same reporting requirement in 40 CFR 63.4311(a)(4) that requires the same statement to be reported if “there were no deviations from the emission limitations in Table 1 to this subpart and §§ 63.4292, and 63.4293.” Note that “emission limitation” is defined in 40 CFR 63.4371 to mean an emission limit, operating limit, or work practice standard.

We propose to revise one instance in 40 CFR 63.4311(a)(7)(i)(B) and one instance in 40 CFR 63.4311(a)(7)(ii)(B) that reference an equation that is missing. Each of these provisions specifies that “Equations 4, 4A, 5, and 7 of § 63.4331” must be used to calculate the organic HAP emission rate for dyeing/finishing operations; however, Equation 6 of § 63.4331 should also be used, together with Equations 4, 4A, 5, and 7 of § 63.4331. We propose to add “6” to the list of equations cited in 40 CFR 63.4311(a)(7)(i)(B) and 63.4311(a)(7)(ii)(B), so that the citation reads “Equations 4, 4A, 5, 6, and 7 of § 63.4331.” We propose to revise one instance in 40 CFR 63.4340(b)(3) in which an erroneous rule citation “§ 63.4561” is specified. Section 63.4561 does not exist in 40 CFR part 63, subpart OOOO, and 40 CFR 63.4341 is the correct citation, providing the calculations for demonstrating initial compliance, referred to in association with the erroneous rule citation. We propose to change the erroneous citation to “§ 63.4341.” We propose to revise one instance in Table 3 to Subpart

OOOO of Part 63 of an erroneous rule reference to “sections 63.4342 and 63.4352.” This rule citation is specified in the fourth column of the table entry for “§ 63.8(g)(1)–(5),” as the source for the requirements related to reducing monitoring data. Sections 40 CFR 63.4342 and 63.4352 do not provide requirements related to data reduction; however, 40 CFR 63.4363 and 63.4364 do provide these requirements and should be the correct citation. We propose to change the erroneous citation to “Sections 63.4363 and 63.4364.”

#### d. Requesting Comment on Ongoing Emissions Compliance Demonstrations

As part of an ongoing effort to improve compliance with various federal air emission regulations, the EPA reviewed the compliance demonstration requirements in the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP. Currently, if a source owner or operator chooses to comply with the standards using add-on controls, the results of an initial performance test are used to determine compliance; however, the rule does not require on-going periodic performance testing for these emission capture systems and add-on controls.

As described more fully in section IV.A.4.d of this preamble for the Surface Coating of Large Appliances source category, the ICAC, in their comments on proposed revisions to the NESHAP General Provisions (72 FR 69, January 3, 2007), commented that ongoing maintenance and checks of control devices are necessary in order to ensure emissions control technology, including both thermal and catalytic oxidizers, remains effective.<sup>31</sup> These same comments apply to the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category.

Given these comments from ICAC, suppliers of air pollution control and monitoring technology, on the need for vigilance in maintaining equipment to stem degradation, the EPA is requesting comment on what steps, in addition to one-time initial emissions and capture efficiency testing, along with ongoing temperature measurement, might better ensure ongoing compliance with the standards.

EPA specifically requests comment on whether air performance testing should be required anytime a source plans to undertake an operational change that may adversely affect compliance with

an applicable standard, operating limit, or parametric monitoring value. This requirement would include provisions to allow a source to make the change, but limit the change to a specific time before a test is required. We anticipate that a reasonable time limit under the new operations change would be approximately 30 days to allow adequate time for testing and developing a test report. The source would submit temperature and flow rate data during the test to establish new operating parameters. We are specifically requesting comment on this potential provision, including the time a source is allowed to operate under the new parameters before they test, and what would constitute an operational change requiring testing.

This approach would require air emissions testing to measure organic HAP destruction or removal efficiency at the inlet and outlet of the add-on control device, or measurement of the control device outlet concentration of organic HAP. Emissions would be measured as total gaseous organic mass emissions as carbon using either Method 25 or 25A of appendix A–7 to 40 CFR part 60, which are the methods currently required for the initial compliance demonstration.

We estimate that the cost to perform a control device emissions destruction or removal efficiency test using EPA Method 25 or 25A would be approximately \$19,000 per control device. The cost estimate is included in the memorandum titled *Costs/Impacts of the 40 CFR part 63 Subparts NNNN, OOOO and RRRR Monitoring Review Revisions, in the Fabrics and Other Textiles Docket*.

#### 5. What compliance dates are we proposing?

The EPA is proposing that affected sources that commenced construction or reconstruction on or before September 12, 2018 must comply with all of the amendments, with the exception of the proposed electronic format for submitting notifications and semiannual compliance reports, no later than 181 days after the effective date of the final rule. Affected sources that commence construction or reconstruction after September 12, 2018 must comply with all requirements of the subpart, including the amendments being proposed, with the exception of the proposed electronic format for submitting notifications and semiannual compliance reports, no later than the effective date of the final rule or upon startup, whichever is later. All affected facilities would have to continue to meet the current requirements of 40 CFR

<sup>31</sup> See Docket Item No. EPA–HQ–OAR–2004–0094–0173, available at [www.regulations.gov](http://www.regulations.gov). A copy of the ICAC’s comments on the proposed revisions to the General Provisions is also included in the Fabrics and Other Textiles Docket for this action.

part 63, subpart OOOO until the applicable compliance date of the amended rule. The final action is not expected to be a “major rule” as defined by 5 U.S.C. 804(2), so the effective date of the final rule will be the promulgation date as specified in CAA section 112(d)(10).

For existing sources, we are proposing two changes that would impact ongoing compliance requirements for 40 CFR part 63, subpart OOOO. As discussed elsewhere in this preamble, we are proposing to add a requirement that notifications, performance test results, and semiannual compliance reports be submitted electronically using the new template. We are also proposing to change the requirements for SSM by removing the exemption from the requirements to meet the standard during SSM periods and by removing the requirement to develop and implement an SSM plan. Our experience with similar industries that are required to convert reporting mechanisms to install necessary hardware and software, become familiar with the process of submitting performance test results electronically through the EPA’s CEDRI, test these new electronic submission capabilities, and reliably employ electronic reporting shows that a time period of a minimum of 90 days, and, more typically, 180 days is generally necessary to successfully accomplish these revisions.

Our experience with similar industries further shows that this sort of regulated facility generally requires a time period of 180 days to read and understand the amended rule requirements; to evaluate their operations to ensure that they can meet the standards during periods of startup and shutdown as defined in the rule and make any necessary adjustments; and to update their operation, maintenance, and monitoring plan to reflect the revised requirements. The EPA recognizes the confusion that multiple different compliance dates for individual requirements would create and the additional burden such an assortment of dates would impose. From our assessment of the timeframe needed for compliance with the entirety of the revised requirements, the EPA considers a period of 180 days to be the most expeditious compliance period practicable and, thus, is proposing that all affected sources that commenced construction or reconstruction on or before September 12, 2018 be in compliance with all of this regulation’s revised requirements within 181 days of the regulation’s effective date.

We solicit comment on the proposed compliance periods, and we specifically request submission of information from sources in this source category regarding specific actions that would need to be undertaken to comply with the proposed amended requirements and the time needed to make the

adjustments for compliance with any of the revised requirements. We note that information provided may result in changes to the proposed compliance dates.

*C. What are the analytical results and proposed decisions for the Surface Coating of Metal Furniture source category?*

1. What are the results of the risk assessment and analyses?

As described in section III of this preamble, for the Surface Coating of Metal Furniture source category, we conducted a risk assessment for all HAP emitted. We present results of the risk assessment briefly below and in more detail in the *Metal Furniture Risk Assessment Report* in the Metal Furniture Docket (Docket ID No. EPA–HQ–OAR–2017–0669).

a. Inhalation Risk Assessment Results

Table 5 of this preamble provides a summary of the results of the inhalation risk assessment for the source category. As discussed in section III.C.2 of this preamble, we set MACT-allowable HAP emission levels at metal furniture coating facilities equal to 1.8 times actual emissions. For more detail about the MACT-allowable emission levels, see Appendix 1 to the *Metal Furniture Risk Assessment Report* in the Metal Furniture Docket.

TABLE 5—SURFACE COATING OF METAL FURNITURE SOURCE CATEGORY INHALATION RISK ASSESSMENT RESULTS

Risk assessment	Maximum individual cancer risk (in 1 million)		Estimated population at increased risk of cancer ≥ 1-in-1 million		Estimated annual cancer incidence (cases per year)		Maximum chronic noncancer TOSHI <sup>1</sup>		Maximum Screening Acute Noncancer HQ <sup>2</sup>
	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions	Based on allowable emissions	Based on actual emissions
Source Category .....	7	10	2,100	4,200	0.0004	0.0008	0.2	0.3	HQ <sub>REL</sub> = 2
Whole Facility .....	7	.....	2,200	.....	0.0005	.....	0.1	.....	

<sup>1</sup> The TOSHI is the sum of the chronic noncancer HQ for substances that affect the same target organ or organ system.  
<sup>2</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop HQ values.

The results of the inhalation risk modeling using actual emissions data, as shown in Table 5 of this preamble, indicate that the maximum individual cancer risk based on actual emissions (lifetime) could be up to 7-in-1 million, the maximum chronic noncancer TOSHI value based on actual emissions could be up to 0.2, and the maximum screening acute noncancer HQ value (off-facility site) could be up to 2. The total estimated annual cancer incidence (national) from these facilities based on actual emission levels is 0.0004 excess cancer cases per year or one case in every 2,500 years.

b. Acute Risk Results

Table 5 of this preamble shows the acute risk results for the Surface Coating of Metal Furniture source category. The screening analysis for acute impacts was based on an industry specific multiplier of 1.8, to estimate the peak emission rates from the average rates. For more detailed acute risk results refer to the *Metal Furniture Risk Assessment Report* in the Metal Furniture Docket.

c. Multipathway Risk Screening Results

We did not identify any PB–HAP emitted by facilities in this source category. Therefore, we do not expect any human health multipathway risks

as a result of emissions from this source category.

d. Environmental Risk Screening Results

The emissions data for the Surface Coating of Metal Furniture source category indicate that no environmental HAP are emitted by sources within this source category. Therefore, we did not conduct a screening-level evaluation of the potential adverse environmental risks associated with emissions for the Surface Coating of Metal Furniture source category. We do not expect an adverse environmental effect as a result

of HAP emissions from this source category.

e. Facility-Wide Risk Results

Four facilities have a facility-wide cancer MIR greater than or equal to 1-in-1 million. The maximum facility-wide cancer MIR is 7-in-1 million, driven by ethyl benzene. The total estimated cancer incidence from the whole facility is 0.0005 excess cancer cases per year, or one excess case in every 2,000 years. Approximately 2,200 people were estimated to have cancer risks above 1-in-1 million from exposure

to HAP emitted from both MACT and non-MACT sources of the 16 facilities in this source category. The maximum facility-wide TOSHI for the source category is estimated to be 0.1.

f. What demographic groups might benefit from this regulation?

To examine the potential for any environmental justice issues that might be associated with the source category, we performed a demographic analysis, which is an assessment of risks to individual demographic groups of the populations living within 5 km and

within 50 km of the facilities. In the analysis, we evaluated the distribution of HAP-related cancer and noncancer risks from the Surface Coating of Metal Furniture source category across different demographic groups within the populations living near facilities.<sup>32</sup>

The results of the demographic analysis are summarized in Table 6 below. These results, for various demographic groups, are based on the estimated risks from actual emissions levels for the population living within 50 km of the facilities.

TABLE 6—SURFACE COATING OF METAL FURNITURE SOURCE CATEGORY DEMOGRAPHIC RISK ANALYSIS RESULTS

	Nationwide	Population with cancer risk at or above 1-in-1 million due to Surface Coating of Metal Furniture source category	Population with chronic noncancer hazard index above 1 due to Surface Coating of Metal Furniture source category
Total Population .....	317,746,049	2,100	0
<b>White and Minority</b>			
White .....	62	62	0
Minority .....	38	38	0
<b>Minority Detail by Percent</b>			
African American .....	12	7	0
Native American .....	0.8	0	0
Hispanic or Latino .....	18	30	0
Other and Multiracial .....	7	2	0
<b>Income by Percent</b>			
Below the Poverty Level .....	14	23	0
Above the Poverty Level .....	86	77	0
<b>Education by Percent</b>			
Over 25 Without a High School Diploma .....	14	34	0
Over 25 With a High School Diploma .....	86	66	0

The results of the Surface Coating of Metal Furniture source category demographic analysis indicate that emissions from the source category expose approximately 2,100 people to a cancer risk at or above 1-in-1 million and no one to a chronic noncancer HI greater than 1. The percentages of the at-risk population in the following specific demographic groups are higher than their respective nationwide percentages: “Hispanic or Latino,” “Over 25 Without a HS Diploma,” and “Below the Poverty Level.”

The methodology and the results of the demographic analysis are presented in a technical report, *Risk and Technology Review—Analysis of Demographic Factors for Populations*

*Living Near Surface Coating of Metal Furniture Source Category Operations*, October 2017, available in the Metal Furniture Docket.

2. What are our proposed decisions regarding risk acceptability, ample margin of safety, and adverse environmental effects?

a. Risk Acceptability

As noted in section III.A of this preamble, we weigh all health risk factors in our risk acceptability determination, including the cancer MIR, the number of persons in various cancer and noncancer risk ranges, cancer incidence, the maximum noncancer TOSHI, the maximum acute

noncancer HQ, the extent of noncancer risks, the distribution of cancer and noncancer risks in the exposed population, and risk estimation uncertainties (54 FR 38044, September 14, 1989).

For the Surface Coating of Metal Furniture source category, the risk analysis indicates that the cancer risks to the individual most exposed could be up to 7-in-1 million due to actual emissions and up to 10-in-1 million based on allowable emissions. These risks are considerably less than 100-in-1 million, which is the presumptive upper limit of acceptable risk. The risk analysis also shows very low cancer incidence (0.0004 cases per year for actual emissions, or one case in every

<sup>32</sup> Demographic groups included in the analysis are: White, African American, Native American, other races and multiracial, Hispanic or Latino,

children 17 years of age and under, adults 18 to 64 years of age, adults 65 years of age and over, adults without a high school diploma, people living below

the poverty level, people living above the poverty level, and linguistically isolated people.



2,500 years, and 0.0008 cases per year for allowable emissions or one case in every 1,250 years), and we did not identify potential for adverse chronic noncancer health effects. The acute noncancer risks based on actual emissions is an HQ of 2 for glycol ethers. Therefore, we find there is little potential concern of acute noncancer health impacts from actual emissions. In addition, the risk assessment indicates no significant potential for multipathway health effects.

Considering all of the health risk information and factors discussed above, including the uncertainties discussed in section III.C.7 of this preamble, we propose to find that the risks from the Surface Coating of Metal Furniture source category are acceptable.

#### b. Ample Margin of Safety Analysis

Although we are proposing that the risks from the Surface Coating of Metal Furniture source category are acceptable, risk estimates for approximately 2,100 individuals in the exposed population are above 1-in-1 million at the actual emissions level and 4,200 individuals in the exposed population are above 1-in-1 million at the allowable emissions level. Consequently, we further considered whether the MACT standards for the Surface Coating of Metal Furniture source category provide an ample margin of safety to protect public health. In this ample margin of safety analysis, we investigated available emissions control options that might further reduce the risk from the source category. This information was considered along with our determination of the health risks acceptability.

As described in section III.B of this preamble, our technology review focused on identifying developments in practices, processes, and control technologies for the Surface Coating of Metal Furniture source category, and the EPA reviewed various information sources regarding emission sources that are currently regulated by the Surface Coating of Metal Furniture NESHAP.

The only development identified in the technology review is the use of high-efficiency spray equipment. We estimated no costs or emissions reductions that would be achieved by switching to high efficiency application methods for this source category because we expect that metal furniture surface coating facilities are already using high efficiency coating application methods due to state VOC rules and the economic incentives of using more efficient application methods. As discussed below, however,

we are proposing to require this technology under the technology review. We request comment on this proposed requirement and whether any facilities in this source category do not currently use high efficiency coating application methods.

Based on our review, we did not identify any developments in add-on control technologies, other equipment, or work practices and procedures that would reduce HAP from the industry. Therefore, we are proposing that additional emissions controls for this source category are not necessary to provide an ample margin of safety.

#### c. Environmental Effects

The emissions data for the Surface Coating of Metal Furniture source category indicate that no environmental HAP are emitted by sources within this source category and we are unaware of any adverse environmental effects caused by HAP emitted from this source category. Therefore, we do not expect there to be an adverse environmental effect as a result of HAP emissions from this source category and we are proposing that it is not necessary to set a more stringent standard to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.

#### 3. What are the results and proposed decisions based on our technology review?

As described in section III.B of this preamble, our technology review focused on identifying developments in practices, processes, and control technologies for the Surface Coating of Metal Furniture source category, and the EPA reviewed various information sources regarding emission sources that are currently regulated by the Surface Coating of Metal Furniture NESHAP. These emission sources include coating mixing; coating application; coating curing; conveying coatings, thinners and cleaning materials; and waste storage and handling. Based on our review, we identified, as outlined below, one development in technology, the application of high-efficiency spray equipment, for the Surface Coating of Metal Furniture source category. A brief summary of the EPA's findings in conducting the technology review of metal furniture surface coating operations follows. For a detailed discussion of the EPA's findings, refer to the *Metal Furniture Technology Review Memorandum* in the Metal Furniture Docket.

The technology basis for the original MACT standards for existing sources under the Surface Coating of Metal

Furniture NESHAP was a combination of low-HAP liquid (high-solids and waterborne) coatings and cleaning solvents, and powder coatings. During development of that rulemaking, we found that add-on capture and control systems for organic HAP were rarely used by the industry at that time; of the 22 existing sources that were the basis of the MACT analysis, only one source was identified as using an add-on control (a carbon adsorber/oxidizer system).<sup>33</sup> The original MACT basis for new or reconstructed sources under the NESHAP was the use of non-HAP coatings, including the use of powder coatings and the use of non-HAP liquid coatings. Under the final original MACT standards, new or reconstructed affected sources must emit no organic HAP during each compliance period. Existing affected sources must limit organic HAP emissions to no more than 0.10 kg organic HAP/liter (0.83 lb/gal) of coating solids used during each compliance period. The use of a PTE and add-on control was considered during development of the Metal Furniture NESHAP, but was rejected as not cost effective for the incremental emission reductions that would be achieved relative to the MACT floor level of control.

Using the RBLC database, we identified entries for two facilities currently subject to the Surface Coating of Metal Furniture NESHAP. We reviewed the state operating permits for the two facilities in the RBLC database, and for all other facilities known to be subject to 40 CFR part 63, subpart RRRR to determine if any are using technologies that exceed MACT or that were not considered during the development of the original NESHAP. None of these facilities are using add-on controls to comply with the Surface Coating of Metal Furniture NESHAP, and none of these facilities are using any other technology that exceeds MACT or that was not considered during the development of the original NESHAP.

We have also found no information that any improvements in PTE and add-on control technology have occurred that would affect the cost effectiveness of a PTE and add-on control or result in additional emission reductions. We have not identified any changes that would increase the efficiency of these controls or reduce their cost. Therefore, the EPA does not consider the use of a PTE and add-on control to be a

<sup>33</sup> National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Category: Metal Furniture Surface Coating—Background Information for Proposed Standards. EPA-453/R-01-010. October 2001. Table 6-1, pp. 6-3 to 6-4.

development in technology for the metal furniture source category. This result is consistent with the technology review determinations for the Wood Furniture Manufacturing Operations NESHAP (75 FR 80247, December 21, 2010) and for the Shipbuilding and Ship Repair (Surface Coating) NESHAP (75 FR 80239, December 21, 2010) that the incremental emissions reductions that would be achieved using PTE and add-on control would not warrant the additional cost that each existing source would incur. We considered PTEs and add-on controls in the development of the original Surface Coating of Metal Furniture NESHAP, but we rejected these systems as a beyond-the-floor options for MACT for the source category because the additional reductions, compared to a combination of low-HAP liquid coatings and powder coatings, would not justify the additional costs (67 FR 20206, at 20216, April 24, 2002). None of the facilities currently subject to the Metal Furniture NESHAP are using add-on controls, and we have not identified any add-on control technology or other equipment that has been developed that was not identified and considered during MACT standard development. Similarly, we have identified no improvements in add-on control technology or other equipment, and no change in the cost effectiveness of add-on controls that were identified and considered during MACT standard development that could result in additional emission reductions.

We have not identified any process change or pollution prevention alternative that could be broadly applied to the industry and that was not identified or considered during development of the original Metal Furniture MACT standard. We reviewed other sources for information on recent trends in coating technology in the metal furniture industry. The *ACA Industry Market Analysis* has reported that the technology for non-wood (predominantly metal) furniture coating has been stable over the period since the NESHAP was promulgated, with a slow and steady increase in the use of powder and high-solids coatings. According to the *ACA Industry Market Analysis*, liquid coatings still account for about 75 percent of the coatings used on non-wood furniture and fixtures, but greater than 80 percent of the liquid coatings are high-solids coatings. Powder coatings and high solids (lower-HAP coatings) were considered during development of the original NESHAP and are the basis for the MACT standards, so these technologies do not represent developments in practices,

processes, or control technologies since the Surface Coating of Metal Furniture NESHAP was promulgated. Rather, the shift to use of more powder and higher solids coatings has occurred as an expected response to comply with the original Surface Coating of Metal Furniture NESHAP. The *ACA Industry Market Analysis* reported that the growth in powder coating demand has slowed since 2005, as the technology has matured and the powders are seen as commodities with little product differentiation.

The technology review conducted for the Wood Furniture Manufacturing Operations NESHAP (40 CFR part 63, subpart JJ) identified the use of more efficient spray equipment as a development in process equipment, and adopted regulations preventing the use of conventional air-atomized spray guns. The Wood Furniture Manufacturing MACT identified the use of air-assisted airless spraying as a more efficient coating application technology.

The Surface Coating of Metal Furniture NESHAP does not contain any standards specifying the type of spray equipment that must be used when coatings are spray-applied. Several other surface coating NESHAP specify that high efficiency spray guns must be used for spray applied coatings (*i.e.*, 40 CFR part 63, subparts GG and JJ) or the compliance demonstration takes into account the transfer efficiency of the spray equipment, and the standards are based on high-efficiency spray application (*e.g.*, 40 CFR part 63, subpart III). Using high-efficiency spray equipment increases the amount of coating applied to the substrate compared to conventional spray equipment and, therefore, reduces emissions. Many facilities complying with 40 CFR part 63, subpart RRRR are required by state VOC regulations in Indiana, Ohio, and Wisconsin to use high-efficiency spray guns for coatings that are spray applied. We expect that most other metal furniture surface coating facilities also are using high-efficiency application equipment for spray applied coatings as a cost saving measure to reduce coating and spray booth filter consumption and to reduce the amount of solid waste generated in the form of used spray booth filters. Although we expect that the high-efficiency application equipment would provide cost savings from an engineering perspective, we are uncertain of other factors that facilities may need to consider if choosing to switch to high-efficiency application equipment. Due to the competitive marketplace and the number of units going through these surface coating

facilities, there may be facility specific operational, coating adherence, coating drying time, material compatibility, or other reasons that a facility may not have chosen to switch to high-efficiency spray. We request comment on these and other aspects of facility decision making as the agency has limited information on the market penetration of this technology and these other factors.

Based on these findings, we are proposing to revise the Surface Coating of Metal Furniture NESHAP for coating application operations pursuant to CAA section 112(d)(6) to require that, for each coating operation for which coatings are spray applied, high efficiency spray equipment must be used if the source is not using the emission rate with add-on control compliance option. Specifically, all spray-applied coating operations, where the source is not using the emission rate with add-on control compliance option, must be demonstrated to achieve transfer efficiency equivalent to or better than 65 percent. There are four types of high efficiency spray equipment technologies that have been applied in these applications that could achieve the transfer efficiency equivalent to or better than 65 percent including high volume, low pressure (HVLV) spray equipment, electrostatic application, airless spray equipment, and air assisted airless spray equipment. Alternative spray equipment technologies may also be used with documentation demonstrating at least 65 percent transfer efficiency. Spray application equipment sources not using the emission rate with add-on control compliance option, and/or using alternative spray application equipment technologies other than the four listed, must follow procedures in the California South Coast Air Quality Management District's, "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" to demonstrate that their spray application equipment is capable of achieving transfer efficiency equivalent to, or better than, 65 percent. Equivalency documentation may be certified by manufacturers of the spray equipment, on behalf of spray-applied coating operations sources, by following the aforementioned procedure in conjunction with California South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002." When using these equivalency procedures and/or guidelines, facilities would not be required to submit an application with

the test plan or protocol to the Administrator, conduct the test in the presence of an Administrator's representative, or submit test results to the Administrator for review or approval. Instead, they would be required to maintain records demonstrating the transfer efficiency achieved, including a description of the procedures and/or guidelines used. We are proposing that all spray equipment used for spray-applied coating operations would be required to be operated according to company procedures, local specified operating procedures, or the manufacturer's specifications, whichever is determined to meet the 65 percent transfer efficiency. Further, we are proposing related definitions for "airless and air-assisted airless spray," "electrostatic application," "high-volume, low-pressure (HVLV) spray equipment," "spray-applied coating operations," and "transfer efficiency."

Considering just the incremental cost of the high efficiency spray equipment and savings due to using less material consumption, we expect that all facilities have already switched to high efficiency application methods for the reasons discussed in the technology review section for surface coating of large appliances. We have not estimated the emissions reductions achieved by switching to high efficiency application methods for this source category because we expect that all large appliance surface coating facilities are using high efficiency coating application methods. However, if any facilities switch to high efficiency application equipment, there would likely be emission reductions of the same magnitude as would occur in the large appliance surface coating source category. For more information on the cost of spray gun equipment and potential HAP emission reductions, see the memorandum titled *Impacts of Prohibiting the Use of Conventional Spray Guns in the Wood Manufacturing Operations Source Category* (Docket ID Number EPA-HQ-OAR-2010-0786 EPA). Refer to section IV.A.5 of this preamble for a discussion of the compliance schedule for using high efficiency spray equipment.

Finally, we identified no developments in work practices or procedures for the Surface Coating of Metal Furniture source category, including work practices and procedures that are currently prescribed in the NESHAP. The current Surface Coating of Metal Furniture NESHAP standards require that, if a facility uses add-on controls to comply with the emission limitations (and currently no

facilities do this), the facility must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established. The current work practice requirements address all the potential emission sources that are normally located outside of the PTE that is routed to the control device, and no new measures have been identified to further reduce the emissions from these sources.

Refer to section IV.C.5 of this preamble for a discussion of the compliance schedule for using high efficiency spray equipment. For further discussion of the technology review results, refer to the *Metal Furniture Technology Review Memorandum* in the Metal Furniture Docket.

#### 4. What other actions are we proposing?

We are proposing to require electronic submittal of notifications, semiannual reports, and compliance reports (which include performance test reports). In addition, we are proposing revisions to the SSM provisions of the MACT rule in order to ensure that they are consistent with the Court decision in *Sierra Club v. EPA*, 551 F. 3d 1019 (DC Cir. 2008), which vacated two provisions that exempted sources from the requirement to comply with otherwise applicable CAA section 112(d) emission standards during periods of SSM. We also are proposing the addition of EPA Method 18, various technical and editorial changes, and IBR of alternative test methods. Our analyses and proposed changes related to these issues are discussed in the sections below.

Though we are not proposing to change reporting frequency currently in the rule, we are requesting comment on changing the reporting frequency for all reports to EPA from semi-annual to annual due to the potential redundancy of these reporting requirements. We recognize that Title V permits have a statutory requirement for semi-annual reports, which are generally reported to state regulatory agencies. However, we are not certain that changing the report frequency for just the reports submitted to EPA in this NESHAP will result in a reporting and recordkeeping burden reduction. We request comment and supporting information on the burden impact of changing the reporting requirement to annual for the reporting to EPA.

#### a. Electronic Reporting Requirements

The EPA is proposing that owners and operators of facilities subject to the Surface Coating of Metal Furniture NESHAP submit electronic copies of initial notifications required in 40 CFR 63.9(b), notifications of compliance status required in 40 CFR 63.9(h), performance test reports, and semiannual reports through the EPA's CDX, using the CEDRI. A description of the EPA's CDX and the EPA's proposed rationale and details on the addition of these electronic reporting requirements for the Surface Coating of Metal Furniture source category is the same as for the Surface Coating of Large Appliances source category, which is discussed above in section IV.A.4.a of this preamble. For further information regarding the electronic data submission process, please refer to the memorandum titled *Electronic Reporting for Surface Coatings of Metal Furniture*, May 2018, in the Metal Furniture Docket. No specific form is proposed at this time for the initial notifications required in 40 CFR 63.9(b) and notifications of compliance status required in 40 CFR 63.9(h). Until the EPA has completed electronic forms for these notifications, the notifications will be required to be submitted via CEDRI in PDF. After development of the final forms, we will notify sources about their availability via the CEDRI website and the CHIEF Listserv. For semiannual reports, the EPA proposes that owners or operators use the appropriate spreadsheet template in CEDRI for 40 CFR part 63, subpart RRRR, or an alternate electronic file format consistent with the form's extensible markup language schema. For further information regarding the electronic data submission process, please refer to the spreadsheet template attached to the memorandum *Electronic Reporting Template for Surface Coating of Metal Furniture, Subpart RRRR Semiannual Reports*, May 2018, in the Metal Furniture Docket. We specifically request comment on the format and usability of the template (e.g., filling and uploading a provided spreadsheet versus entering the required information into a fillable CEDRI web form), as well as the content, layout, and overall design of the template. Prior to availability of the final semiannual compliance report template in CEDRI, owners or operators of affected sources will be required to submit semiannual compliance reports as otherwise required by the Administrator. After development of the final template, we will notify sources about its availability via the CEDRI website and the CHIEF

Listserv.<sup>34</sup> We plan to finalize a required reporting format with the final rule. The owner or operator would begin submitting reports electronically with the next report that is due, once the electronic template has been available for at least one year.

Regarding submittal of performance test reports via the EPA's ERT, as discussed in section IV.A.4.a of this preamble for the Surface Coating of Large Appliances NESHAP, the proposal to submit performance test data electronically to the EPA applies only if the EPA has developed an electronic reporting form for the test method as listed on the EPA's ERT website. For the Surface Coating of Metal Furniture NESHAP, most of the current EPA test methods listed under 40 CFR part 63, subpart RRRR, are currently supported by the ERT, including EPA Methods 25 and 25A. EPA Method 18, which is proposed for measuring and subtracting methane from total organic compounds as measured by current EPA Method 25 or 25A, is not supported by ERT. As discussed in section IV.A.4.a of this preamble, we are proposing that performance test results collected using test methods that are not supported by the ERT as listed on the EPA's ERT website at the time of the test be submitted in PDF using the attachment module of the ERT.

Also, as discussed in section IV.A.4.a of this preamble for the Surface Coating of Large Appliances NESHAP, we are proposing to provide facilities with the ability to seek extensions for submitting electronic reports for circumstances beyond the control of the facility. In proposed 40 CFR 63.4921(d), we address the situation for facilities subject to the Surface Coating of Metal Furniture NESHAP where an extension may be warranted due to outages of the EPA's CDX or CEDRI which may prevent access to the system and submittal of the required reports. In 40 CFR 63.4921(e), we address the situation for facilities subject to the Surface Coating of Metal Furniture NESHAP where an extension may be warranted due to a force majeure event, which is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents compliance with the requirement to submit a report electronically as required by this rule.

## b. Startup, Shutdown, and Malfunction Requirements

### 1. Proposed Elimination of the SSM Exemption

The EPA is proposing to eliminate the SSM exemption in the Surface Coating of Metal Furniture NESHAP. The EPA's proposed rationale for the elimination of the SSM exemption for the Surface Coating of Metal Furniture source category is the same as for the Surface Coating of Large Appliances source category, which is discussed in section IV.A.4.b.1 of this preamble. We are also proposing several revisions to Table 2 to subpart RRRR of 40 CFR part 63 (*Applicability of General Provisions to Subpart RRRR*, hereafter referred to as the "General Provisions table to subpart RRRR") as is explained in more detail below in section IV.C.4.b.2 of this preamble. For example, we are proposing to eliminate the incorporation of the General Provisions' requirement that the source develop an SSM plan. Further, we are proposing to eliminate and revise certain recordkeeping and reporting requirements related to the SSM exemption as further described below. The EPA has attempted to ensure that the provisions we are proposing to eliminate are inappropriate, unnecessary, or redundant in the absence of the SSM exemption. We are specifically seeking comment on the specific proposed deletions and revisions and also whether additional provisions should be revised to achieve the stated goal.

In proposing these rule amendments, the EPA has taken into account startup and shutdown periods and, for the same reasons explained in section IV.A.4.b.1 of this preamble for the Surface Coating of Large Appliances source category, has not proposed alternate standards for those periods in the Surface Coating of Metal Furniture NESHAP. Although no statutory language compels the EPA to set standards for malfunctions, the EPA has the discretion to do so where feasible, as further discussed in section IV.A.4.b.1 of this preamble for the Surface Coating of Large Appliances source category. Further, it is unlikely that a malfunction of sources in the Surface Coating of Metal Furniture source category would result in a violation of the standards. Because a malfunction of the coating operation would lead to defective products, it would most likely be corrected by the owner/operator as quickly as possible to minimize economic losses. Furthermore, a malfunction would not lead to an increase in the HAP content of the coatings or the amount of HAP emitted from those coatings; therefore, it

is unlikely that malfunctions at facilities using the compliant material or emission rate without control option would result in a violation. Finally, compliance with the surface coating emission limits is based on a monthly compliance period, so any malfunction that causes a short-term increase in emissions may not cause a violation of the standard. We have no information to suggest that it is feasible or necessary to establish any type of standard for malfunctions associated with the Surface Coating of Metal Furniture source category. We encourage commenters to provide any such information, if available.

In the unlikely event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. Refer to section IV.A.4.b.1 of this preamble for further discussion of the EPA's actions in response to a source failing to comply with the applicable CAA section 112(d) standards as a result of a malfunction event for the Surface Coating of Large Appliances source category, which applies to this source category.

### 2. Proposed Revisions to the General Provisions Applicability Table

#### a. 40 CFR 63.4900(b) General Duty

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.6(e)(1)(i) by changing the "yes" in column 3 to a "no." Section 63.6(e)(1)(i) describes the general duty to minimize emissions. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. We are proposing instead to add general duty regulatory text at 40 CFR 63.4900(b) that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption, there is no need to differentiate between normal operations, startup and shutdown, and malfunction events in describing the general duty. Therefore, the language the EPA is proposing for 40 CFR 63.4900(b) does not include that language from 40 CFR 63.6(e)(1).

<sup>34</sup> <https://www.epa.gov/air-emissions-inventories/air-emissions-inventory-listservs>.

We are also proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.6(e)(1)(ii) by changing the “yes” in column 3 to a “no.” Section 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant with the general duty requirement being added at 40 CFR 63.4900(b).

#### b. SSM Plan

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.6(e)(3) by changing the “yes” in column 3 to a “no.” Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. We are also proposing to remove from 40 CFR part 63, subpart RRRR, the current provisions requiring the SSM plan, including 40 CFR 63.4900(c) and 63.4910(c)(9)(v). As noted, the EPA is proposing to remove the SSM exemptions. Therefore, affected units will be subject to an emission standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive to plan for and achieve compliance and thus the SSM plan requirements are no longer necessary.

#### c. Compliance With Standards

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.6(f)(1) by changing the “yes” in column 3 to a “no.” The current language of 40 CFR 63.6(f)(1) exempts sources from non-opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club* vacated the exemptions contained in this provision and held that the CAA requires that some CAA section 112 standards apply continuously. Consistent with *Sierra Club*, the EPA is proposing to revise standards in this rule to apply at all times.

We are also proposing to remove rule text in 40 CFR 63.4961(h) clarifying that, in calculating emissions to demonstrate compliance, deviation periods must include deviations during an SSM period. Since the EPA is removing the SSM exemption, this clarifying text is no longer needed.

#### d. 40 CFR 63.4963 Performance Testing

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.7(e)(1) by changing the “yes” in column 3 to a “no.” Section 63.7(e)(1)

describes performance testing requirements. The EPA is instead proposing to add a performance testing requirement at 40 CFR 63.4963. We are also proposing to remove rule text in 40 CFR 63.4963(a)(1) that states that periods of malfunction do not constitute representative conditions for the purposes of conducting a performance test. The performance testing requirements we are proposing differ from the General Provisions performance testing provisions in several respects. The regulatory text does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and language that precluded startup and shutdown periods from being considered “representative” for purposes of performance testing. Also, the proposed performance testing provisions will not allow performance testing during startup or shutdown. As in 40 CFR 63.7(e)(1), performance tests conducted under this subpart should not be conducted during malfunctions because conditions during malfunctions are often not representative of normal operating conditions. Section 63.7(e) requires that the owner or operator maintain records of the process information necessary to document operating conditions during the test and include in such records an explanation to support that such conditions represent normal operation. The EPA is proposing to add language clarifying that the owner or operator must make such records available to the Administrator upon request.

#### e. Monitoring

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.8(c)(1)(i) and (iii) by changing the “yes” in column 3 to a “no.” The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)). Further, we are proposing to revise the General Provisions table to subpart NNNN (table 2) entry for 40 CFR 63.8(c)(1)(ii) by changing the “yes” in column 3 to a “no.” We have determined that 40 CFR 63.8(c)(1)(ii) is redundant to the current monitoring requirement in 40 CFR 63.4967(a)(4) (*i.e.*, “maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment”), except 40 CFR 63.8(c)(1)(ii) specifies “readily available.” We are proposing to revise

40 CFR 63.4967(a)(4) to specify “readily available.”

#### f. 40 CFR 63.4930 Recordkeeping

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.10(b)(2)(i) by changing the “yes” in column 3 to a “no.” Section 63.10(b)(2)(i) describes the recordkeeping requirements during startup and shutdown. These recording provisions are no longer necessary because the EPA is proposing that recordkeeping and reporting applicable to normal operations will apply to startup and shutdown. In the absence of special provisions applicable to startup and shutdown, such as a startup and shutdown plan, there is no reason to retain additional recordkeeping for startup and shutdown periods.

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.10(b)(2)(ii) by changing the “yes” in column 3 to a “no.” Section 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction, requiring a record of “the occurrence and duration of each malfunction.” A similar record is already required in 40 CFR 63.4930(j), which requires a record of “the date, time, and duration of each deviation,” which the EPA is retaining. The regulatory text in 40 CFR 63.4930(j) differs from the General Provisions in that the General Provisions requires the creation and retention of a record of the occurrence and duration of each malfunction of process, air pollution control, and monitoring equipment; whereas 40 CFR 63.4930(j) applies to any failure to meet an applicable standard and is requiring that the source record the date, time, and duration of the failure rather than the “occurrence.” The EPA is also proposing to add to 40 CFR 63.4930(j) a requirement that sources also keep records that include a list of the affected source or equipment and actions taken to minimize emissions, an estimate of the quantity of each regulated pollutant emitted over the emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions. Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters (*e.g.*, coating HAP content and application rates and control device efficiencies). The EPA is proposing to require that sources keep records of this information to ensure that there is

adequate information to allow the EPA to determine the severity of any failure to meet a standard, and to provide data that may document how the source met the general duty to minimize emissions when the source has failed to meet an applicable standard.

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.10(b)(2)(iv) by changing the “yes” in column 3 to a “no.” When applicable, the provision requires sources to record actions taken during SSM events when actions were inconsistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required. The requirement previously applicable under 40 CFR 63.10(b)(2)(iv)(B) to record actions to minimize emissions and record corrective actions is now applicable by reference to 40 CFR 63.4930(j)(4).

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.10(b)(2)(v) by changing the “yes” in column 3 to a “no.” When applicable, the provision requires sources to record actions taken during SSM events to show that actions taken were consistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required.

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.10(c)(15) by changing the “yes” in column 3 to a “no.” The EPA is proposing that 40 CFR 63.10(c)(15) no longer apply. When applicable, the provision allows an owner or operator to use the affected source’s SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA is proposing to eliminate this requirement because SSM plans would no longer be required, and, therefore, 40 CFR 63.10(c)(15) no longer serves any useful purpose for affected units.

We are proposing to remove the requirement in 40 CFR 63.4930(k)(1) that deviation records specify whether deviations from a standard occurred during a period of SSM. This revision is being proposed due to the proposed removal of the SSM exemption and because, as discussed above in this section, we are proposing that deviation records must specify the cause of each deviation, which could include a malfunction period as a cause. We are also proposing to remove the requirement to report the SSM records in 40 CFR 63.6(e)(3)(iii) through (v) by deleting 40 CFR 63.4930(k)(2).

#### g. 40 CFR 63.4920 Reporting

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.10(d)(5) by changing the “yes” in column 3 to a “no.” Section 63.10(d)(5) describes the reporting requirements for startups, shutdowns, and malfunctions. To replace the General Provisions reporting requirement, the EPA is proposing to add reporting requirements to 40 CFR 63.4920. The replacement language differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We are proposing language that requires sources that fail to meet an applicable standard at any time to report the information concerning such events in the semi-annual compliance report already required under this rule. Subpart RRRR of 40 CFR subpart 63 currently requires reporting of the date, time period, and cause of each deviation. We are clarifying in the rule that, if the cause of a deviation from the standard is unknown, this should be specified in the report. We are also proposing to change “date and time period” or “date and time” to “date, time, and duration” (see 40 CFR 63.4920(a)(5)(i), (a)(7)(ix), and (a)(7)(xi), (a)(7)(xvi)) to use terminology consistent with the recordkeeping section. Further, we are proposing that the report must also contain the number of deviations from the standard and a list of the affected source or equipment. For deviation reports addressing deviations from an applicable emission limit in 40 CFR 63.4890 or operating limit in Table 1 to subpart RRRR, we are proposing that the report also include an estimate of the quantity of each regulated pollutant emitted over any emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions. For deviation reports addressing deviations from work practice standards associated with the emission rate with add-on controls option (see proposed revisions to 40 CFR 63.4920(a)(7)(xvi)), we are retaining the current requirement (including reporting actions taken to correct the deviation), except that we are revising the rule language to reference the new general duty requirement in 40 CFR 63.4900(b), we are clarifying that the description of the deviation must include a list of the affected sources or equipment and the cause of the deviation, we are clarifying that “time period” includes the “time and duration,” and we are requiring that the report include the number of deviations from the work practice

standards in the reporting period. Further, we are proposing to apply these same reporting requirements to deviations from the proposed new equipment standards associated with high efficiency spray equipment (see proposed revisions in 40 CFR 63.4920(a)(5)(ii), (a)(5)(ii)(F), and (a)(5)(ii)(G)).

Regarding the proposed new requirement discussed above to estimate the quantity of each regulated pollutant emitted over any emission limit for which the source failed to meet the standard, and a description of the method used to estimate the emissions, examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters (e.g., coating HAP content and application rates and control device efficiencies). The EPA is proposing this requirement to ensure that there is adequate information to determine compliance, to allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

We will no longer require owners or operators to determine whether actions taken to correct a malfunction are consistent with an SSM plan, because plans would no longer be required. The proposed amendments, therefore, eliminate 40 CFR 63.4920(c) that requires reporting of whether the source deviated from its SSM plan, including required actions to communicate with the Administrator, and the cross reference to 40 CFR 63.10(d)(5)(i) that contains the description of the previously required SSM report format and submittal schedule from this section. These specifications are no longer necessary because the events will be reported in otherwise required reports with similar format and submittal requirements.

We are proposing to revise the General Provisions table to subpart RRRR (table 2) entry for 40 CFR 63.10(d)(5)(ii) by changing the “yes” in column 3 to a “no.” Section 63.10(d)(5)(ii) describes an immediate report for startups, shutdown, and malfunctions when a source failed to meet an applicable standard, but did not follow the SSM plan. We will no longer require owners and operators to report when actions taken during a startup, shutdown, or malfunction were not consistent with an SSM plan, because plans would no longer be required.

We are proposing to remove the requirements in 40 CFR 63.4920(a)(7)(xiii) that deviation reports must specify whether a deviation from an operating limit occurred during a period of SSM. We are also proposing to remove the requirements in 40 CFR 63.4920(a)(7)(xi) to break down the total duration of deviations into the startup and shutdown categories. As discussed above in this section, we are proposing to require reporting of the cause of each deviation. Further, the startup and shutdown categories no longer apply because these periods are proposed to be considered normal operation, as discussed in section IV.C.4.b.1 of this preamble for the Surface Coating of Large Appliances source category, which also applies to this source category.

#### c. Technical Amendments to the Surface Coating of Metal Furniture NESHAP

We are proposing to amend 40 CFR 63.4965(b) to add the option of conducting EPA Method 18 of appendix A to 40 CFR part 60, "Measurement of Gaseous Organic Compound Emissions by Gas Chromatography" to measure and then subtract methane emissions from measured total gaseous organic mass emissions as carbon. Facilities using the emission rate with add-on control compliance option can use either EPA Method 25 or Method 25A to measure control device destruction efficiency. Unlike EPA Method 25, Method 25A does not exclude methane from the measurement of organic emissions. Because many exhaust streams from coating operations may contain methane from natural gas combustion, we are proposing to allow facilities the option to measure the methane using Method 18 and to subtract it from the emissions as part of their compliance calculations. We also propose to revise the format of references to test methods in 40 CFR part 60. The current reference in 40 CFR 63.4965(a) and (b) to Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 25, and 25A specify that each method is in "appendix A" of part 60. Appendix A of part 60 has been divided into appendices A-1 through A-8. We propose to revise each reference to appendix A to indicate which of the eight sections of appendix A applies to the method.

EPA is proposing to amend 40 CFR 63.4941(a)(1)(i) and (a)(4), which describe how to demonstrate initial compliance with the emission limitations using the compliant material option, to remove reference to paragraph (d)(4) of OSHA's Hazard Communication standard, which dealt

with OSHA-defined carcinogens. EPA is proposing to replace that reference with its own list of hazardous air pollutants that must be regarded as potentially carcinogenic based on EPA guidelines. Although paragraph (d)(4) of OSHA's standard was deleted when the Agency adopted the Globally Harmonized System of Hazard Communication in 2012, it was replaced by section A.6.4.2 of mandatory Appendix A of that standard, which reads as follows:

"Where OSHA has included cancer as a health hazard to be considered by classifiers for a chemical covered by 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, chemical manufacturers, importers, and employers shall classify the chemical as a carcinogen." Thus, where OSHA has regulated workplace exposure to a chemical based, at least in part, on carcinogenic risk, OSHA requires the chemical to be classified as a carcinogen. OSHA suggests that EPA should refer to section A.6.4.2 of Appendix A of 29 CFR 1910.1200 in its discussion of section 63.4141 and consider chemicals that meet this requirement be considered "OSHA-defined carcinogens."

We are proposing to replace these references to OSHA-defined carcinogens at 29 CFR 1910.1200(d)(4) with a list (in proposed new Table 5 to 40 CFR part 63, subpart RRRR) of those organic HAP that must be included in calculating total organic HAP content of a coating material if they are present at 0.1 percent or greater by mass.

We are including organic HAP in the proposed Table 5 to 40 CFR part 63, subpart RRRR if they were categorized in the EPA's *Prioritized Chronic Dose-Response Values for Screening Risk Assessments* (dated May 9, 2014) as a "human carcinogen," "probable human carcinogen," or "possible human carcinogen" according to *The Risk Assessment Guidelines of 1986* (EPA/600/8-87/045, August 1987),<sup>35</sup> or as "carcinogenic to humans," "likely to be carcinogenic to humans," or with "suggestive evidence of carcinogenic potential" according to the *Guidelines for Carcinogen Risk Assessment* (EPA/630/P-03/001F, March 2005).

We are also proposing to revise the monitoring provisions for thermal and catalytic oxidizers to clarify that a thermocouple is part of the temperature sensor referred to in 40 CFR 63.4967(c)(3) for purposes of performing periodic calibration and verification checks.

<sup>35</sup> See <https://www.epa.gov/fera/dose-response-assessment-assessing-health-risks-associated-exposure-hazardous-air-pollutants>.

Current 40 CFR 63.4931(a) allows records, "where appropriate," to be maintained as "electronic spreadsheets" or a "data base." We propose to add clarification to this provision that the allowance to retain electronic records applies to all records that were submitted as reports electronically via the EPA's CEDRI. We also propose to add text to the same provision clarifying that this ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

We propose to revise the second sentence of 40 CFR 63.4920(a)(4) to correct an erroneous reference to "the emission limitations in § 63.4890," to be "the applicable emission limitations in §§ 63.4890, 63.4892, and 63.4893." This provision is intended to provide the criteria for all compliance options, for making a statement that there were no deviations in the compliance period. For this provision to apply to the emission rate with add-on control devices option cited later in the sentence in "§ 63.4962(f)," the criteria for making an affirmative statement of no deviations must address all three types of emission limitations (as defined in 40 CFR 63.4981) in 40 CFR 63.4890, 63.4892, and 63.4893. To avoid confusion with the term "emission limitation" as defined in 40 CFR 63.4981, and harmonize the terminology with 40 CFR 63.4890, we also propose to change "emission limitation" in the first sentence of 40 CFR 63.4920(a)(4) to be "emission limit."

We propose to remove from 40 CFR 63.4951(c) the list of methods that may be used to determine the density of each coating, thinner, and cleaning material, and to retain the reference to 40 CFR 63.4941(c), which provides the same list of methods. This list of methods is being updated in 40 CFR 63.4941(c), including IBR of a new version of a method, and this proposed approach minimizes redundancy in the rule and removes the need to incorporate the revised method into two separate provisions of the subpart.

We propose to revise one instance in Table 2 to Subpart RRRR of Part 63 of an erroneous rule citation of "§ 63.4920(a)." This rule citation is specified in the fourth column of the table entry for "§ 63.10(e)(3)," as the source for the contents of periodic compliance reports. Section 40 CFR 63.4920(a) does not provide the contents of periodic compliance reports; they are provided in 40 CFR 63.4920(b), and we propose to change the erroneous citation to "§ 63.4920(b)."

#### d. Requesting Comment on Ongoing Emissions Compliance Demonstrations

As part of an ongoing effort to improve compliance with various federal air emission regulations, the EPA reviewed the compliance demonstration requirements in the Surface Coating of Metal Furniture NESHAP. Currently, if a source owner or operator chooses to comply with the standards using add-on controls, the results of an initial performance test are used to determine compliance; however, the rule does not require on-going periodic performance testing for these emission capture systems and add-on controls.

As described more fully in section IV.A.4.d of this preamble for the Surface Coating of Large Appliances source category, the ICAC, in their comments on proposed revisions to the NESHAP General Provisions (72 FR 69, January 3, 2007), commented that ongoing maintenance and checks of control devices are necessary in order to ensure emissions control technology, including both thermal and catalytic oxidizers, remains effective.<sup>36</sup> These same comments apply to the Surface Coating of Metal Furniture source category.

Given these comments from ICAC, suppliers of air pollution control and monitoring technology, on the need for vigilance in maintaining equipment to stem degradation, the EPA is requesting comment on what steps, in addition to one-time initial emissions and capture efficiency testing, along with ongoing temperature measurement, might better ensure ongoing compliance with the standards.

One approach on which the EPA is specifically requesting comment, but which is not included in this proposed rule, would be to require air performance testing anytime a source plans to undertake an operational change that may adversely affect compliance with an applicable standard, operating limit, or parametric monitoring value. This requirement would include provisions to allow a source to make the change, but limit the change to a specific time before a test is required. We anticipate that a reasonable time limit under the new operations change would be approximately 30 days to allow adequate time for testing and developing a test report. The source would submit temperature and flow rate data during the test to establish new

operating parameters. We are specifically requesting comment on this potential provision, including the time a source is allowed to operate under the new parameters before they test, and what would constitute an operational change requiring testing.

This approach on which we are requesting comment could also allow an exception from periodic testing for facilities using instruments to continuously measure emissions. Such CEMS would show actual emissions. Use of CEMS to demonstrate compliance would obviate the need for periodic oxidizer testing. Moreover, installation and operation of a CEMS with a timesharing component, such that values from more than one oxidizer exhaust could be tabulated in a recurring frequency, could prove less expensive (estimated to have an annual cost below \$15,000) than ongoing oxidizer testing.

Of course, this approach on which we are requesting comment would not require periodic testing or CEMS monitoring of facilities using the compliant materials option, or the emission-rate without add-on controls compliance option because these two compliance options do not use any add-on control efficiency measurements in the compliance calculations.

This approach would require air emissions testing to measure organic HAP destruction or removal efficiency at the inlet and outlet of the add-on control device, or measurement of the control device outlet concentration of organic HAP. Emissions would be measured as total gaseous organic mass emissions as carbon using either Method 25 or 25A of appendix A-7 to 40 CFR part 60, which are the methods currently required for the initial compliance demonstration.

We estimate that the cost to perform a control device emissions destruction or removal efficiency test using EPA Method 25 or 25A would be approximately \$19,000 per control device. The cost estimate is included in the memorandum titled *Costs/Impacts of the 40 CFR part 63 Subparts NNNN, OOOO and RRRR Monitoring Review Revisions*, in the Metal Furniture Docket.

#### 5. What compliance dates are we proposing?

The EPA is proposing that affected sources that commenced construction or reconstruction on or before September 12, 2018 must comply with all of the amendments, with the exception of the proposed electronic format for submitting notifications and semiannual compliance reports, no later than 181

days after the effective date of the final rule. Affected sources that commence construction or reconstruction after September 12, 2018 must comply with all requirements of the subpart, including the amendments being proposed, with the exception of the proposed electronic format for submitting notifications and semiannual compliance reports, no later than the effective date of the final rule or upon startup, whichever is later. All affected facilities would have to continue to meet the current requirements of 40 CFR part 63, subpart RRRR until the applicable compliance date of the amended rule. The final action is not expected to be a “major rule” as defined by 5 U.S.C. 804(2), so the effective date of the final rule will be the promulgation date as specified in CAA section 112(d)(10).

For existing sources, we are proposing two changes that would impact ongoing compliance requirements for 40 CFR part 63, subpart RRRR. As discussed elsewhere in this preamble, we are proposing to add a requirement that notifications, performance test results, and semiannual compliance reports be submitted electronically using the new template. We are also proposing to change the requirements for SSM by removing the exemption from the requirements to meet the standard during SSM periods and by removing the requirement to develop and implement an SSM plan. Our experience with similar industries that are required to convert reporting mechanisms to install necessary hardware and software, become familiar with the process of submitting performance test results electronically through the EPA’s CEDRI, test these new electronic submission capabilities, and reliably employ electronic reporting shows that a time period of a minimum of 90 days, and, more typically, 180 days is generally necessary to successfully accomplish these revisions. Our experience with similar industries further shows that this sort of regulated facility generally requires a time period of 180 days to read and understand the amended rule requirements; to evaluate their operations to ensure that they can meet the standards during periods of startup and shutdown as defined in the rule and make any necessary adjustments; and to update their operation, maintenance, and monitoring plan to reflect the revised requirements. The EPA recognizes the confusion that multiple different compliance dates for individual requirements would create and the additional burden such an assortment of dates would impose. From

<sup>36</sup> See Docket EPA-HQ-OAR-2004-0094-0173, available at [www.regulations.gov](http://www.regulations.gov). A copy of the ICAC’s comments on the proposed revisions to the General Provisions is also included in the Metal Furniture Docket for this action.



our assessment of the timeframe needed for compliance with the entirety of the revised requirements, the EPA considers a period of 180 days to be the most expeditious compliance period practicable and, thus, is proposing that existing affected sources and new affected sources that commenced construction or reconstruction on or before September 12, 2018 be in compliance with all of this regulation's revised requirements, except for the requirement to use high efficiency spray equipment discussed below, within 181 days of the regulation's effective date.

Under CAA section 112(d), we are proposing compliance dates for the proposed requirement to use high efficiency spray equipment if the source is not using the emission rate with add-on control compliance option. For existing affected sources under this proposed action, we propose to provide sources three years after the effective date of the final rule to comply with the proposed requirement to use high efficiency spray equipment. We are proposing a three-year compliance date for facilities that have not switched to high efficiency spray equipment because facilities that are not yet using high efficiency spray equipment have multiple alternative equipment types to consider under this proposed rule. The three-year compliance period will provide all facilities sufficient time to source and purchase the specific type of spray application equipment compatible with their operations. Furthermore, the compliance period provides time for sources to verify that the spray equipment they choose meets the transfer efficiency requirements in this proposed rule. In addition, because a spray gun's useful lifespan is approximately two years, the proposed three-year compliance period will provide enough time for facilities to source and purchase replacement guns on their current equipment purchase cycle, develop any necessary operational procedures, and perform training. Finally, the three-year compliance period will ensure that a facility is not required to replace a spray gun before it has time to identify and source new guns and develop bid specification and operation procedures. For new affected sources under this proposed action, the proposed compliance date is the effective date of the final rule or upon startup, whichever is later. We solicit comment on these proposed compliance periods, and we specifically request submission of information from sources in this source category regarding specific actions that would need to be

undertaken to comply with the proposed amended requirements and the time needed to make the adjustments for compliance with any of the revised requirements. We note that information provided may result in changes to the proposed compliance dates.

## **V. Summary of Cost, Environmental, and Economic Impacts**

### *A. What are the affected sources?*

Currently, ten major sources subject to the Surface Coating of Large Appliances NESHAP are operating in the United States. The affected source under the NESHAP is the collection of all coating operations; all storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed; all manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and all storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation. A coating operation is defined as the equipment used to apply cleaning materials to a substrate to prepare it for coating application or to remove dried coating (surface preparation), to apply coating to a substrate (coating application) and to dry or cure the coating after application, or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a coating or cleaning material is applied and all subsequent points in the affected source where organic HAP emissions from that coating or cleaning material occur. There may be multiple coating operations in an affected source.

Currently, 43 major sources subject to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP are operating in the United States. The affected source under the NESHAP includes the following three categories of operations: Web coating and printing operations, slashing operations, and dyeing and finishing operations.

The web coating and printing operations subcategory is the collection of all web coating and printing equipment used to apply cleaning materials to a substrate on the coating or printing line to prepare it for coating or printing material application, to apply coating or printing materials to a substrate and to dry or cure the coating or printing materials, or equipment used to clean web coating/printing operation equipment; all containers used for

storage and vessels used for mixing coating, printing, thinning, or cleaning materials; all equipment and containers used for conveying coating, printing, thinning, or cleaning materials; all containers used for storage, and all equipment and containers used for conveying waste materials generated by a coating or printing operation; and all equipment, structures, and/or devices(s) used to convey, treat, or dispose of wastewater streams or residuals generated by a coating or printing operation.

The slashing operations subcategory is the collection of all slashing equipment used to apply and dry the sizing on the warp yarn (the warp yarn are the vertical fibers, and a chemical compound referred to as sizing is used to bind and stiffen the yarn to provide abrasion resistance during weaving); all containers used for storage and vessels used for mixing slashing materials; all equipment and containers used for conveying slashing materials; all containers used for storage and all equipment and containers used for conveying waste materials generated by a slashing operation; and all equipment, structures, and/or devices(s) used to convey, treat, or dispose of wastewater streams or residuals generated by a slashing operation.

The dyeing and finishing subcategory is the collection of all dyeing and finishing equipment used to apply dyeing or finishing materials, to fix dyeing materials to the substrate, to rinse the textile substrate, or to dry or cure the dyeing or finishing materials; all containers used for storage and vessels used for mixing dyeing or finishing materials; all equipment and containers used for conveying dyeing or finishing materials; all containers used for storage, and all equipment and containers used for conveying, waste materials generated by a dyeing or finishing operation; and all equipment, structures, and/or devices(s) used to convey, treat, or dispose of wastewater streams or residuals generated by a dyeing or finishing operation.

Currently, 16 major sources subject to the Surface Coating of Metal Furniture NESHAP are operating in the United States. The affected source under the NESHAP is the collection of all coating operations; all storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed; all manual and automated equipment and containers and all pumps and piping within the affected source used for conveying coatings, thinners, and cleaning materials; and all storage containers, all pumps and piping, and all manual and

automated equipment and containers within the affected source used for conveying waste materials generated by a coating operation. A coating operation is defined as the equipment used to apply cleaning materials to a substrate to prepare it for coating application or to remove dried or wet coating (surface preparation); to apply coating to a substrate (coating application) and to dry or cure the coating after application; and to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a coating or cleaning material is applied and all subsequent points in the affected source where organic HAP emissions from that coating or cleaning material occur. There may be multiple coating operations in an affected source.

#### B. What are the air quality impacts?

At the current level of control, estimated emissions of volatile organic HAP from the Surface Coating of Large Appliances source category are approximately 120 tpy. Current estimated emissions of volatile organic HAP from the Printing, Coating, and Dyeing of Fabrics and Other Textiles source category are approximately 737 tpy. Current estimated emissions of volatile organic HAP from the Surface Coating of Metal Furniture source category are approximately 145 tpy.

We do not estimate any volatile organic HAP emission reductions from the proposed requirement to use high-efficiency coating spray application equipment in the large appliance surface coating and the metal furniture surface coating source categories. We did not quantify these reductions; however, if a facility switched from spray guns with 50-percent transfer efficiency to those with 65-percent transfer efficiency, the amount of coating reaching the part during spraying would increase by 30 percent, and the total amount of coating needed to complete the coating operation would be reduced by 23 percent, leading to a corresponding decrease in organic HAP emissions. Due to a combination of economic incentives and state rule requirements to use high-efficiency coating spray application equipment, we expect that facilities in this source category are already using high efficiency coating spray application equipment. However, we are specifically requesting information on any facilities not using high efficiency spray application equipment.

All 69 major sources in the three source categories would be required to

comply with the relevant emission standards at all times without the SSM exemption. We were unable to quantify the specific emissions reductions associated with eliminating the SSM exemption. However, eliminating the SSM exemption has the potential to reduce emissions by requiring facilities to meet the applicable standard during SSM periods.

Indirect or secondary air emissions impacts are impacts that would result from the increased electricity usage associated with the operation of control devices (e.g., increased secondary emissions of criteria pollutants from power plants). Energy impacts consist of the electricity and steam needed to operate control devices and other equipment. The proposed amendments would have no effect on the energy needs of the affected facilities in any of the three source categories and would, therefore, have no indirect or secondary air emissions impacts.

#### C. What are the cost impacts?

We estimate that each facility in the three source categories will experience costs as a result of these proposed amendments for reporting.

Facilities in the large appliances and metal furniture source categories transitioning to high efficiency spray equipment may experience costs to purchase new equipment. We do not have sufficient information on current use of this type of equipment to develop a potential industry-wide cost. However, based the following example from a similar coating operation, we expect the change to result in a net cost savings. Due to the increased transfer efficiency from 45 percent with conventional spray guns to 65 percent with high volume low pressure spray guns, the amount of coating used per part is expected to decrease by approximately 31 percent. See the memorandum titled, *Impacts of Prohibiting the Use of Conventional Spray Guns in the Wood Furniture Manufacturing Operations Source Category*, October 19, 2010, EPA Docket Number EPA-HQ-OAR-2010-0786. For either type of gun, the annual costs are equal to the sum of the cost of the spray gun and the cost of coatings. The cost of coatings is equal to the product of the cost per volume of coating, the volume of coating used, and the number of days. The capital cost of a convention spray gun is approximately \$200 and the cost of an air-assisted airless spray gun is approximately \$700.00. Invalid source specified. The cost differential between a conventional spray gun and an air-assisted spray gun is \$500.00, and, and a typical coating costs \$15.00 per gallon.

If a facility operates five days per week and 50 weeks per year, a typical year will contain 250 days of operation. Complete cost recovery will occur when the air-assisted-airless gun is used at a rate of 1.21 gallons of coatings per day for a year. If the coating cost is higher, the cost recovery will occur in less than one year. For more information on this cost analysis, see the memorandum titled *Impacts of Prohibiting the Use of Conventional Spray Guns in the Wood Furniture Manufacturing Operations Source Category*, (EPA Docket Number EPA-HQ-OAR-2010-0786).

We are specifically soliciting comments on the current use of high efficiency spray equipment, the costs to transition from conventional spray application equipment to high efficiency spray application equipment (including costs for changes to coating delivery systems we may have overlooked), and the actual coating cost savings realized due to the change.

Each facility will experience costs to read and understand the rule amendments. Costs associated with elimination of the SSM exemption were estimated as part of the reporting and recordkeeping costs and include time for re-evaluating previously developed SSM record systems. Costs associated with the requirement to electronically submit notifications and semi-annual compliance reports using CEDRI were estimated as part of the reporting and recordkeeping costs and include time for becoming familiar with CEDRI and the reporting template for semi-annual compliance reports. The recordkeeping and reporting costs are presented in section V.III.C of this preamble.

We estimate that for the large appliances and metal furniture source categories, should a source need to purchase and begin using high efficiency spray equipment, the cost savings associated with less coating material may offset the incremental equipment costs in typical cases.

We are also soliciting comment on whether to require air emissions performance testing in each source category using the emission rate with add-on controls compliance option. We estimate that 15 facilities subject to the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP would incur costs to conduct air emissions performance testing because they are currently using the emission rate with add-on controls compliance option. These 15 facilities have a total of 18 add-on controls. This total does not include other facilities in this source category that have add-on controls and are already required to perform air emissions performance testing as a

condition of their state operating permit. The cost for a facility to conduct a destruction or removal efficiency air emissions performance test using EPA Method 25 or 25A is estimated to be about \$19,000, and the total cost for all 15 facilities to test 18 add-on control devices in a single year would be \$340,000. One facility subject to the Surface Coating of Large Appliances NESHAP is using the emission rate with add-on controls compliance option and is already required to perform air emissions performance testing as a condition of their state operating permit, and would have no added costs if air emissions performance testing were required under the NESHAP. No facilities subject to the Surface Coating of Metal Furniture NESHAP are expected to incur costs to conduct air emissions performance testing because none are using add-on controls. For further information on the potential costs, see the memoranda titled *Estimated Costs/Impacts of the 40 CFR part 63 Subparts NNNN, OOOO and RRRR Monitoring Reviews*, February 2018, in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket.

#### D. What are the economic impacts?

The economic impact analysis is designed to inform decision-makers about the potential economic consequences of a regulatory action. For the current proposals, the EPA estimated the cost of becoming familiar with the rule and re-evaluating previously developed SSM record systems. For the proposed revisions to the NESHAP for the Surface Coating of Large Appliances, the total cost is estimated to be \$23,000 for the ten affected entities and is expected to range from 0.000002 to 0.02 percent of annual sales revenue per affected entity. For the proposed revisions to the NESHAP for the Printing, Coating, and Dyeing of Fabrics and Other Textiles, the total cost is estimated to be \$90,000 for the 43 affected entities and is expected to range from 0.000005 to 0.42 percent of annual sales revenue per affected entity. For the proposed revisions to the NESHAP for the Surface Coating of Metal Furniture, the total cost is estimated to be \$32,000 for the 16 affected entities and is expected to range from 0.00007 to 0.02 percent of annual sales revenue per affected entity. For each of these sectors, the costs are not expected to result in a significant market impact, regardless of whether they are passed on to the purchaser or absorbed by the firms.

The EPA also prepared a small business screening assessment to determine if any of the identified

affected entities are small entities, as defined by the U.S. Small Business Administration. One of the facilities potentially affected by the proposed revisions to the NESHAP for the Surface Coating of Large Appliances is a small entity. The annualized costs associated with the proposed requirements for this facility is 0.02 percent of the annual sales revenue for that facility. Eighteen of the facilities potentially affected by the proposed revisions to the NESHAP for the Printing, Coating, and Dyeing of Fabrics and Other Textiles are small entities. The annualized costs associated with the proposed requirements for these 18 affected small entities range from 0.00067 to 0.25 percent of annual sales revenues per affected entity. Six of the facilities potentially affected by the proposed revisions to the NESHAP for the Surface Coating of Metal Furniture are small entities. The annualized costs associated with the proposed requirements for these six affected small entities range from 0.001 to 0.02 percent of annual sales revenues per affected entity. For each of these sectors, there are no significant economic impacts on a substantial number of small entities from the proposed amendments. More information and details of this analysis is provided in the technical documents titled *Economic Impact and Small Business Screening Assessments for Proposed Amendments to the National Emission Standards for Hazardous Air Pollutants for the Surface Coating of Large Appliances (Subpart NNNN), Economic Impact and Small Business Screening Assessments for Proposed Amendments to the National Emission Standards for Hazardous Air Pollutants for the Printing, Coating and Dyeing of Fabrics and Other Textiles (Subpart OOOO)*, and *Economic Impact and Small Business Screening Assessments for Proposed Amendments to the National Emission Standards for Hazardous Air Pollutants for the Surface Coating of Metal Furniture (Subpart RRRR)*, available in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket, respectively.

#### E. What are the benefits?

As stated above in section V.B. of this preamble, we were unable to quantify the specific emissions reductions associated with eliminating the SSM exemption. We also are unable to quantify potential emissions reductions of organic HAP. However, any reduction in HAP emissions would be expected to provide health benefits in the form of improved air quality and less exposure to potentially harmful chemicals.

## VI. Request for Comments

We solicit comments on all aspects of this proposed action. In addition to general comments on this proposed action, we are also interested in additional data that may improve the risk assessments and other analyses. We are specifically interested in receiving any improvements to the data used in the site-specific emissions profiles used for risk modeling, including the data to estimate the acute multipliers. Such data should include supporting documentation in sufficient detail to allow characterization of the quality and representativeness of the data or information. Section VII of this preamble provides more information on submitting data.

We are also specifically soliciting comment on the following:

- Our assumptions regarding hour-to-hour variation in emissions and our methods of calculating the multiplier for estimating the peak 1-hour emissions for each source category and any additional information that could help refine our approach.
- The current use of high efficiency spray equipment, the costs to transition from conventional spray application equipment to high efficiency spray application equipment (including costs for changes to coating delivery systems we may have overlooked), and the actual coating cost savings realized due to the change. We also request information on aspects of facility decision making concerning use of high efficiency coating methods, and facility specific operational, coating adherence, coating drying time, material compatibility, or other reasons that a facility may not have chosen to switch to high-efficiency spray.
- The requirements for submitting electronic reports, including the draft templates developed for report submittal, and whether report frequency should be semiannual (as proposed) or annual for all three source categories. We specifically request comment on the format and usability of the template (e.g., filling out and uploading a provided spreadsheet versus entering the required information into an on-line fillable CEDRI web form), as well as the content, layout, and overall design of the template.
- The need to establish a standard during periods of malfunction for the Fabric and Other Textiles source category in this action, and we are seeking the specific information described in section IV.B.4 of this preamble to support the standard. We also request public comment and information pertaining to malfunction

periods for all sources in these source categories.

- The need for ongoing compliance demonstrations, in addition to one-time initial emissions and capture efficiency testing through air emissions testing when a source uses an add-on control to comply with the regulation.

- The proposed compliance periods, and we specifically request submission of information from sources in this source category regarding specific actions that would need to be undertaken to comply with the proposed amended requirements and the time needed to make the adjustments for compliance with any of the revised requirements.

- Whether the agency should ban the use of ethylene oxide in the Fabric and Other Textiles source category under the technology review.

- The relationship between section 112(d)(6), technology review, and 112(f), residual risk review. Specifically, we solicit comment on the extent to which findings that underlie a section 112(f) determination should be considered in making any determinations under section 112(d)(6).

## VII. Submitting Data Corrections

The site-specific emissions profiles used in the source category risk and demographic analyses and instructions are available for download on the RTR website at <https://www3.epa.gov/ttn/atw/rrisk/rtrpg.html>. The data files include detailed information for each HAP emissions release point for the facilities in these source categories.

If you believe that the data are not representative or are inaccurate, please identify the data in question, provide your reason for concern, and provide any “improved” data that you have, if available. When you submit data, we request that you provide documentation of the basis for the revised values to support your suggested changes. To submit comments on the data downloaded from the RTR website, complete the following steps:

1. Within this downloaded file, enter suggested revisions to the data fields appropriate for that information.
2. Fill in the commenter information fields for each suggested revision (*i.e.*, commenter name, commenter organization, commenter email address, commenter phone number, and revision comments).
3. Gather documentation for any suggested emissions revisions (*e.g.*, performance test reports, material balance calculations).
4. Send the entire downloaded file with suggested revisions in Microsoft® Access format and all accompanying

documentation to Large Appliances Docket, Fabrics and Other Textiles Docket, or Metal Furniture Docket, as applicable (through the method described in the **ADDRESSES** section of this preamble).

5. If you are providing comments on a single facility or multiple facilities, you need only submit one file for all facilities. The file should contain all suggested changes for all sources at that facility (or facilities). We request that all data revision comments be submitted in the form of updated Microsoft® Excel files that are generated by the Microsoft® Access file. These files are provided on the RTR website at <https://www3.epa.gov/ttn/atw/rrisk/rtrpg.html>.

## VIII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

### A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a significant regulatory action that was submitted to OMB for review. Any changes made in response to OMB recommendations have been documented in the docket.

### B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is expected to be an Executive Order 13771 regulatory action. Details on the estimated costs of this proposed rule can be found in the EPA’s analysis of the potential costs and benefits associated with this action.

### C. Paperwork Reduction Act (PRA)

The information collection activities in this proposed rule have been submitted for approval to OMB under the PRA, as discussed for each source category covered by this proposal in sections VIII.C.1 through 3.

#### 1. Surface Coating of Large Appliances

The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 1954.07. You can find a copy of the ICR in the Large Appliances Docket (Docket ID No. EPA-HQ-OAR-2017-0670), and it is briefly summarized here.

As part of the RTR for the Large Appliances NESHAP, the EPA is proposing to require that, for each coating operation for which coatings are spray applied, high efficiency spray equipment must be used, except when the facility is using the emission rate

with add-on controls compliance option. In addition, the EPA is proposing revisions to the SSM provisions of the rule and proposing the use of electronic data reporting for future performance test data submittals and semi-annual reporting. This information would be collected to assure compliance with 40 CFR part 63, subpart NNNN.

*Respondents/affected entities:* Facilities performing surface coating of large appliances.

*Respondent’s obligation to respond:* Mandatory (40 CFR part 63, subpart NNNN).

*Estimated number of respondents:* In the 3 years after the amendments are final, approximately 10 respondents per year would be subject to the NESHAP and no additional respondents are expected to become subject to the NESHAP during that period.

*Frequency of response:* The total number of responses in year 1 is 30. Years 2 and 3 would have no responses.

*Total estimated burden:* The average annual burden to the large appliance facilities over the 3 years if the amendments are finalized is estimated to be 77 hours (per year). The average annual burden to the Agency over the 3 years after the amendments are final is estimated to be 15 hours (per year) for the Agency. Burden is defined at 5 CFR 1320.3(b).

*Total estimated cost:* The average annual cost to the large appliance facilities is \$7,700 in labor costs, in the first 3 years after the amendments are final. There are no estimated capital and operation and maintenance (O&M) costs. The total average annual Agency cost over the first 3 years after the amendments are final is estimated to be \$700.

#### 2. Printing, Coating, and Dyeing of Fabrics and Other Textiles

The ICR document that the EPA prepared has been assigned EPA ICR number 2071.07. You can find a copy of the ICR in the Fabrics and Other Textiles Docket (Docket ID No. EPA-HQ-OAR-2017-0668), and it is briefly summarized here.

The EPA is not proposing to revise the emission limitation requirements for this subpart. The EPA is proposing revisions to the SSM provisions of the rule, and proposing the use of electronic data reporting for future performance test data submittals and semiannual reports. This information is being collected to assure compliance with 40 CFR part 63, subpart OOOO.

*Respondents/affected entities:* Facilities performing printing, coating, and dyeing of fabrics and other textiles.

*Respondent's obligation to respond:* Mandatory (40 CFR part 63, subpart OOOO).

*Estimated number of respondents:* In the 3 years after the amendments are final, approximately 43 respondents per year will be subject to the NESHAP and no additional respondents are expected to become subject to the NESHAP during that period.

*Frequency of response:* The total number of responses in year 1 is 129. Years 2 and 3 would have no responses.

*Total estimated burden:* The average annual burden to the fabrics and textiles coating facilities over the 3 years if the amendments are finalized is estimated to be 330 hours (per year). The average annual burden to the Agency over the 3 years after the amendments are final is estimated to be 32 hours (per year) for the Agency. Burden is defined at 5 CFR 1320.3(b).

*Total estimated cost:* The average annual cost to the fabrics and textiles coating facilities is \$30,000 in labor costs and no capital and O&M costs, in the first 3 years after the amendments are final. The average annual Agency cost over the first 3 years after the amendments are final is estimated to be \$1,500.

### 3. Surface Coating of Metal Furniture

The ICR document that the EPA prepared has been assigned EPA ICR number 1952.07. You can find a copy of the ICR in the Metal Furniture Docket (Docket ID No. EPA-HQ-OAR-2017-0669), and it is briefly summarized here.

As part of the RTR for the Metal Furniture NESHAP, the EPA is proposing to require that, for each coating operation for which coatings are spray applied, high efficiency spray equipment must be used, except when the facility is using the emission rate with add-on controls compliance option. In addition, the EPA is proposing revisions to the SSM provisions of the rule and proposing the use of electronic data reporting for future performance test data submittals and semi-annual reporting. This information would be collected to assure compliance with 40 CFR part 63, subpart RRRR.

*Respondents/affected entities:* Facilities performing surface coating of metal furniture.

*Respondent's obligation to respond:* Mandatory (40 CFR part 63, subpart RRRR).

*Estimated number of respondents:* In the 3 years after the amendments are final, approximately 16 respondents per year will be subject to the NESHAP and no additional respondents are expected

to become subject to the NESHAP during that period.

*Frequency of response:* The total number of responses in year 1 is 48. Years 2 and 3 would have no responses.

*Total estimated burden:* The average annual burden to the large appliance facilities over the 3 years if the amendments are finalized is estimated to be 123 hours (per year). The average annual burden to the Agency over the 3 years after the amendments are final is estimated to be 25 hours (per year) for the Agency. Burden is defined at 5 CFR 1320.3(b).

*Total estimated cost:* The average annual cost to the metal furniture facilities is \$11,000 in labor costs, in the first 3 years after the amendments are final. There are no estimated capital and O&M costs. The total average annual Agency cost over the first 3 years after the amendments are final is estimated to be \$1,200.

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 the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the dockets identified at the beginning of this rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs via email to [OIRA\\_submission@omb.eop.gov](mailto:OIRA_submission@omb.eop.gov), Attention: Desk Officer for the EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after receipt, OMB must receive comments no later than October 12, 2018. The EPA will respond to any ICR-related comments in the final rule.

#### D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities.

#### E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

#### F. Executive Order 13132: Federalism

This action does not have federalism implications. It 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.

#### G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. No tribal facilities are known to be engaged in any of the industries that would be affected by this action (large appliances surface coating; printing, coating, and dyeing of fabrics and other textiles, surface coating of metal furniture). Thus, Executive Order 13175 does not apply to this action.

#### H. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments are contained in sections III.A and C, IV.A.1 and 2, IV.B.1 and 2, and IV.C.1 and 2 of this preamble and are further documented in the *Large Appliances Risk Assessment Report, Fabrics and Other Textiles Risk Assessment Report, and Metal Furniture Risk Assessment Report* in the Large Appliances Docket, Fabrics and Other Textiles Docket, and Metal Furniture Docket, respectively.

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

This action is not a "significant energy action" because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This action would not affect producers of energy (e.g., coal, oil, or natural gas producers), and would not affect electricity producers. This action would also not increase the energy demands of the facilities potentially affected by this action because it includes no proposed requirements that would be met through the use of additional energy consuming equipment.

*J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51*

This rulemaking involves technical standards. The EPA is proposing to amend the three NESHAP in this action to provide owners and operators with the option of conducting EPA Method 18 of appendix A to 40 CFR part 60, "Measurement of Gaseous Organic Compound Emissions by Gas Chromatography" to measure and subtract methane emissions from measured total gaseous organic mass emissions as carbon.

We found three voluntary consensus standards (VCS) already allowed in the Surface Coating of Large Appliances NESHAP that have been replaced with newer versions of the methods. The first method, ASTM method D1475-13, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," has replaced ASTM D1475-90, and it covers the measurement of density of paints, inks, varnishes, lacquers, and components thereof, other than pigments, when in fluid form; secondly, ASTM D2697-03 (2014) "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" has replaced ASTM D2697-86 (1998), which is applicable to the determination of the volume of nonvolatile matter of a variety of coatings; and finally, ASTM D6093-97 (2016) "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using Helium Gas Pycnometer" has replaced ASTM D6093-97(2003) which covers the determination of the percent volume nonvolatile matter of a variety of clear and pigmented coatings.

For the Surface Coating of Metal Furniture NESHAP, the Printing, Coating and Dyeing of Fabrics and Other Textiles NESHAP, and the Surface Coating of Large Appliances NESHAP, the EPA proposes to incorporate by reference ASTM D2369-10 (2015), "Test Method for Volatile Content of Coatings," which describes a procedure for the determination of the weight percent volatile content of solvent borne and waterborne coatings, as an acceptable alternative to EPA Test Method 24.

The ASTM standards are available from the American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959. See <https://www.astm.org/>.

The EPA is not proposing CARB Method 310, "Determination of Volatile Organic Compounds in Consumer Products and Reactive Organic

Compounds in Aerosol Coating Products," as an alternative to EPA Method 24 because the EPA has approved the method only for consumer products and aerosol coatings, which do not apply to the rulemakings or source categories addressed in this action.

While the EPA has identified another 21 VCS each for Metal Furniture and Large Appliances, and two VCS for Fabrics Printing and Dyeing, as being potentially applicable to this proposed rule, we have decided not to use these VCS in this rulemaking. The use of these VCS would not be practical due to lack of equivalency, documentation, validation date, and other important technical and policy considerations. See the memoranda titled *Voluntary Consensus Standard Results for Surface Coating of Large Appliances*, March 2018, *Voluntary Consensus Standard Results for Printing, Coating, and Dyeing of Fabrics and Other Textiles*, March 2018, and *Voluntary Consensus Standard Results for Surface Coating of Metal Furniture*, March 2018, in the Large Appliances Docket (Docket ID No. EPA-HQ-OAR-2017-0670), Fabrics and Other Textiles Docket (Docket ID No. EPA-HQ-OAR-2017-0668), and Metal Furniture Docket (Docket ID No. EPA-HQ-OAR-2017-0669), respectively, for the reasons for these determinations.

Under 40 CFR 63.7(f) and 40 CFR 63.8(f) of subpart A of the General Provisions, a source may apply to the EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures in the final rule or any amendments.

The EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially applicable VCS and to explain why such standards should be used in this regulation.

*K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994).

The documentation for this decision is contained in sections IV.A.1 and 2, IV.B.1 and 2, and IV.C.1 and 2 of this preamble and the technical reports titled *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Surface Coating of Large Appliances Source*

*Category Operations*, September 2017, *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Surface Coating of Metal Furniture Source Category Operations*, October 2017, and *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Printing, Coating, and Dyeing of Fabrics and Other Textiles Source Category Operations*, September 2017, available in the Large Appliances Docket, Metal Furniture Docket, and Fabrics and Other Textiles Docket, respectively.

As discussed in sections IV.A.1, IV.B.1, and IV.C.1 of this preamble, we performed a demographic analysis for each source category, which is an assessment of risks to individual demographic groups, of the population close to the facilities (within 50 km and within 5 km). In this analysis, we evaluated the distribution of HAP-related cancer risks and noncancer hazards from the Surface Coating of Large Appliances source category, Printing, Coating, and Dyeing of Fabrics and Other Textiles source category, and Surface Coating of Metal Furniture source category across different social, demographic, and economic groups within the populations living near operations identified as having the highest risks.

The results of the Surface Coating of Large Appliances source category demographic analysis indicate that no one is exposed to a cancer risk at or above 1-in-1 million or to a chronic noncancer HI greater than 1. The proximity results (irrespective of risk) indicate that the population within 5 km of facilities in the Surface Coating of Large Appliances source category are greater than the corresponding national percentage for the following demographic percentages: "African American" and "Below the Poverty Level."

The results of the Printing, Coating and Dyeing of Fabrics and Other Textiles source category demographic analysis indicate that emissions from the source category expose approximately 8,500 people to a cancer risk at or above 1-in-1 million and no one to a chronic noncancer HI greater than 1. The percentages of the at-risk population in the following specific demographic groups are higher than their respective nationwide percentages: "African American," "Over 25 Without a HS Diploma," and "Below the Poverty Level." The proximity results (irrespective of risk) indicate that the population percentages for the below the poverty level demographic category within 5 km of facilities in the Printing, Coating, and Dyeing of Fabric and Other

Textiles source category are greater than the corresponding national percentage.

The results of the Surface Coating of Metal Furniture source category demographic analysis indicate that emissions from the source category expose approximately 2,100 people to a cancer risk at or above 1-in-1 million and no one to a chronic noncancer HI greater than 1. The percentages of the at-risk population in the following specific demographic groups are higher than their respective nationwide percentages: "Hispanic or Latino," "Over 25 Without a HS Diploma," and "Below the Poverty Level." The proximity results (irrespective of risk) indicate that the population within 5 km of facilities in the Surface Coating of Metal Furniture source category are greater than the corresponding national percentage for the following demographic percentages: "African American," "Hispanic or Latino," "Over 25 Without a HS Diploma," and "Below the Poverty Level."

We do not expect this proposal to achieve significant reductions in HAP emissions. The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994) because it does not significantly affect the level of protection provided to human health or the environment. The documentation for this decision is contained in section IV of this preamble and the technical reports, *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Printing, Coating, and Dyeing of Fabrics and Other Textiles Source Category Operations*, September 2017; *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Surface Coating of Metal Furniture Source Category Operations*; October 2017; and *Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Surface Coating of Large Appliances Source Category Operations Demographic Analysis*, September 2017, which are available in the dockets for this action.

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

Environmental protection, Air pollution control, Hazardous substances, Incorporation by reference, Surface Coating of Large Appliances, Surface Coating of Metal Furniture, Printing, Coating, and Dyeing of Fabrics and Other Textiles, Reporting and

recordkeeping requirements, Appendix A.

Dated: August 8, 2018.

**Andrew R. Wheeler,**  
*Acting Administrator.*

For the reasons stated in the preamble, the Environmental Protection Agency proposes to amend part 63 of title 40, chapter I, of the Code of Federal Regulations as follows:

**PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES**

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

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

**Subpart A—General Provisions**

- 2. Section 63.14 is amended by
- a. Redesignating paragraphs (h)(13) through (h)(19) as paragraphs (h)(14) through (h)(20), respectively; and adding a new paragraph (h)(13);
- b. Redesignating paragraphs (h)(20) through (h)(23) as paragraphs (h)(22) through (h)(25), respectively; and adding a new paragraph (h)(21);
- c. Redesignating paragraphs (h)(24) through (h)(26) as paragraphs (h)(27) through (h)(29), respectively; and adding new paragraph (h)(26); and
- d. Redesignating paragraphs (h)(27) through (h)(105) as paragraphs (h)(31) through (h)(109), respectively; and adding a new paragraph (h)(30).

The additions read as follows:

**§ 63.14 Incorporations by reference.**

\* \* \* \* \*

(h) \* \* \*

(13) ASTM Method D1475–13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, IBR approved for §§ 63.4141(b) and (c), and 63.4941(b) and (c).

\* \* \* \* \*

(21) ASTM D2111–10 (2015), Standard Test Methods for Specific Gravity of Halogenated Organic Solvents and Their Admixtures, IBR approved for §§ 63.4141(b) and (c).

\* \* \* \* \*

(26) ASTM D2369–10 (2015), Test Method for Volatile Content of Coatings, IBR approved for §§ 63.4141(a) and (b), 63.4161(h), 63.4941(a) and (b), and 63.4961(j).

\* \* \* \* \*

(30) ASTM D2697–03 (2014), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§ 63.4141(b) and 63.4941(b).

\* \* \* \* \*

**Subpart NNNN—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances**

■ 3. Section 63.4094 is added to read as follows:

**§ 63.4094 What transfer efficiency requirement must I meet?**

(a) For any spray-applied coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, you are required to meet a transfer efficiency of 65 percent or use the spray coating application method specified in paragraph (b) of this section. For any spray-applied coating operation(s) for which you use the emission rate with add-on controls option, the transfer efficiency requirement does not apply.

(b) As an alternative to the transfer efficiency requirement in paragraph(a), for any spray-applied coating operation(s) for which you use you use the compliant material option or the emission rate without add-on controls option, you may apply all spray-applied coatings using high-volume, low-pressure (HVLP) spray equipment; electrostatic application; airless spray equipment; or air-assisted airless spray equipment, except as specified in paragraphs (b)(1) of this section. You must also meet the requirements in paragraph (b)(2) of this section.

(1) You may apply spray-applied coatings using an alternative coating spray application method if you demonstrate that the alternative method achieves a transfer efficiency equivalent to or better than 65 percent, using procedures equivalent to the California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" (for availability, see § 63.14) and following guidelines equivalent to "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002" (for availability, see § 63.14). For the purposes of this section, when using these equivalent guidelines or procedures, you are not required to submit an application with the test plan or protocol to the Administrator, conduct the test in the presence of an Administrator, or submit test results to the Administrator for review or approval. Instead you must comply with the recordkeeping requirement in § 63.4130(l).

(2) All spray application equipment must be operated according to company procedures, local specified operating

procedures, and/or the manufacturer's specifications, whichever is most stringent, at all times. If you modify spray application equipment, you must maintain emission reductions or a transfer efficiency equivalent to HVLP spray equipment, electrostatic application, airless spray equipment, or air-assisted airless spray equipment, and you must demonstrate equivalency according to paragraph (b)(1) of this section and comply with the recordkeeping requirement in § 63.4130(l).

■ 4. Section 63.4100 is amended by revising paragraph (b) and removing paragraph (d) to read as follows:

**§ 63.4100 What are my general requirements for complying with this subpart?**

\* \* \* \* \*

(b) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source.

\* \* \* \* \*

■ 5. Section 63.4110 is amended by revising paragraph (b)(9) introductory text and removing paragraph (b)(9)(v) to read as follows:

**§ 63.4110 What notifications must I submit?**

\* \* \* \* \*

(b) \* \* \*

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (b)(9)(i) through (iv) of this section, except that the requirements in paragraphs (b)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h).

\* \* \* \* \*

■ 6. Section 63.4120 is amended by:

- a. Revising paragraph (b) introductory text, paragraph (d) introductory text, and paragraphs (d)(1) and (d)(4);
- b. Adding paragraph (d)(5);
- c. Revising paragraphs (e) introductory text and (e)(3);
- d. Adding paragraph (e)(4);
- e. Revising paragraph (g) introductory text and paragraphs (g)(3), (g)(6) through (8), (g)(10), (g)(13), and (g)(14);
- f. Adding paragraph (g)(15); and
- g. Removing paragraphs (i) and (j).

The revisions and additions read as follows:

**§ 63.4120 What reports must I submit?**

\* \* \* \* \*

(b) The semiannual compliance report must contain the information specified in paragraphs (b)(1) through (4) of this section and the information specified in paragraphs (c) through (h) of this section that is applicable to your affected source.

\* \* \* \* \*

(d) If you use the compliant material option and there was a deviation from the applicable emission limit in § 63.4090, the semiannual compliance report must contain the information in paragraphs (d)(1) through (5) of this section.

(1) Identification of each coating used that deviated from the emission limit, each thinner and cleaning material used that contained organic HAP, and the date, time, and duration each was used.

\* \* \* \* \*

(4) A statement of the cause of each deviation (including unknown cause, if applicable).

(5) The number of deviations and, for each deviation, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit in § 63.4090, and a description of the method used to estimate the emissions.

(e) If you use the emission rate without add-on controls option and there was a deviation from the applicable emission limit in § 63.4090, the semiannual compliance report must contain the information in paragraphs (e)(1) through (4) of this section.

\* \* \* \* \*

(3) A statement of the cause of each deviation (including unknown cause, if applicable).

(4) The number of deviations, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit in § 63.4090, and a description of the method used to estimate the emissions.

\* \* \* \* \*

(g) If you use the emission rate with add-on controls option and there was a

deviation from the applicable emission limit in § 63.4090 or the applicable operating limit(s) in Table 1 to this subpart (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (g)(1) through (12), (g)(14) and (g)(15) of this section. If you use the emission rate with add-on controls option and there was a deviation from the work practice standards in § 63.4093(b), the semiannual compliance report must contain the information in paragraph (g)(13) of this section.

\* \* \* \* \*

(3) The date and time that each malfunction of the capture system or add-on control devices started and stopped.

\* \* \* \* \*

(6) For each instance that the CPMS was inoperative, except for zero (low-level) and high-level checks, the date, time, and duration that the CPMS was inoperative; the cause (including unknown cause) for the CPMS being inoperative; and descriptions of corrective actions taken.

(7) For each instance that the CPMS was out-of-control, as specified in § 63.8(c)(7), the date, time, and duration that the CPMS was out-of-control; the cause (including unknown cause) for the CPMS being out-of-control; and descriptions of corrective actions taken.

(8) The date, time, and duration of each deviation from an operating limit in Table 1 to this subpart; and the date, time, and duration of any bypass of the add-on control device.

\* \* \* \* \*

(10) A breakdown of the total duration of the deviations from the operating limits in Table 1 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to control equipment problems, process problems, other known causes, and other unknown causes.

\* \* \* \* \*

(13) For deviations from the work practice standards in § 63.4093(b):

(i) Number of deviations.

(ii) For each deviation:

(A) A description of the deviation; the date, time, and duration of the deviation; and the actions you took to minimize emissions in accordance with § 63.4100(b).

(B) The description required in paragraph (g)(13)(ii)(A) of this section must include a list of the affected sources or equipment for which a deviation occurred and the cause of the



deviation (including unknown cause, if applicable).

(14) For deviations from an emission limit in § 63.4090 or operating limit in Table 1 to this subpart, a statement of the cause of each deviation (including unknown cause, if applicable).

(15) For each deviation from an emission limit in § 63.4090 or operating limit in Table 1 to this subpart, a list of the affected sources or equipment for which a deviation occurred, an estimate of the quantity of each regulated pollutant emitted over any emission limit in § 63.4090, and a description of the method used to estimate the emissions.

\* \* \* \* \*

■ 7. Section 63.4121 is added to read as follows:

**§ 63.4121 What are my electronic reporting requirements?**

(a) You must submit the results of the performance test required in § 63.4120(h) following the procedure specified in paragraphs (a)(1) through (3) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13, unless the Administrator agrees to or specifies an alternate reporting method.

(3) If you claim that some of the performance test information being submitted under paragraph (a)(1) of this section is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic

storage medium to the EPA. The electronic medium must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Road, Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (a)(1) of this section.

(b) Beginning on [date 2 years after date of publication of final rule in the **Federal Register**], the owner or operator shall submit the initial notifications required in § 63.9(b) and the notification of compliance status required in § 63.9(h) and § 63.4110(a)(2) and (b) to the EPA via the CEDRI. CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov>). The owner or operator must upload to CEDRI an electronic copy of each applicable notification in portable document format (PDF). The applicable notification must be submitted by the deadline specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is confidential business information (CBI) shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Road, Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(c) Beginning on [date 2 years after date of publication of final rule in the **Federal Register**] or once the reporting template has been available on the CEDRI website for one year, whichever date is later, the owner or operator shall submit the semiannual compliance report required in § 63.4120 to the EPA via the CEDRI. CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov>). The owner or operator must use the appropriate electronic template on the CEDRI website for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website ([\[data-reporting-interface-cedri\]\(https://www.epa.gov/electronic-reporting-air-emissions-compliance-and-emissions-data-reporting-interface-cedri\)\). The date report templates become available will be listed on the CEDRI website. If the reporting form for the semiannual compliance report specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate addresses listed in § 63.13. Once the form has been available in CEDRI for one year, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is confidential business information \(CBI\) shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the extensible markup language \(XML\) schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Road, Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.](https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-</a></p>
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(d) If you are required to electronically submit a report through the CEDRI in the EPA's Central Data Exchange (CDX), and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning five business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have

already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(e) If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure, or safety hazard beyond the control of the affected facility (e.g., large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

■ 8. Section 63.4130 is amended by:

- a. Revising paragraph (j) and paragraph (k) introductory text;
- b. Removing and reserving paragraphs (k)(1) and (k)(2); and
- c. Redesignating paragraphs (k)(8) and (9) as paragraphs (k)(7) and (8).

The revisions and additions read as follows:

**§ 63.4130 What records must I keep?**

\* \* \* \* \*

(j) For each deviation from an emission limitation reported under § 63.4120(d), (e), and (g), a record of the information specified in paragraphs (j)(1) through (4) of this section, as applicable.

(1) The date, time, and duration of the deviation, as reported under § 63.4120(d), (e), and (g).

(2) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation, as reported under § 63.4120(d), (e), and (g).

(3) An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in § 63.4090 or any applicable operating limit in Table 1 to this subpart, and a description of the method used to calculate the estimate, as reported under § 63.4120(d), (e), and (g).

(4) A record of actions taken to minimize emissions in accordance with § 63.4100(b) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(k) If you use the emission rate with add-on controls option, you must also keep the records specified in paragraphs (k)(1) through (8) of this section.

\* \* \* \* \*

■ 9. Section 63.4131 is amended by revising paragraph (a) to read as follows:

**§ 63.4131 In what form and for how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database. Any records required to be maintained by this subpart that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

\* \* \* \* \*

■ 10. Section 63.4141 is amended by revising paragraphs (a)(1)(i), (a)(2), (a)(4), (b)(1), parameters "m<sub>volatiles</sub>" and "D<sub>avg</sub>" of Equation 1 in paragraph (b)(3), and paragraph (c) to read as follows:

**§ 63.4141 How do I demonstrate initial compliance with the emission limitations?**

\* \* \* \* \*

(a) \* \* \*

(1) \* \* \*

(i) Count each organic HAP in Table 5 to this subpart that is measured to be present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not listed in Table 5 to this subpart) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (for example, 0.3791).

\* \* \* \* \*

(2) *Method 24 in appendix A-7 of part 60.* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. As an alternative to using Method 24, you may use ASTM D2369-10 (2015), "Test Method for Volatile Content of Coatings" (incorporated by reference, see § 63.14).

\* \* \* \* \*

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data if they represent each organic HAP in Table 5 to this subpart that is present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not listed in Table 5 to this subpart) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence.

\* \* \* \* \*

(b) \* \* \*

(1) *ASTM Method D2697-03 (2014) or D6093-97.* You may use ASTM Method D2697-03 (2014), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," or D6093-97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (incorporated by reference, see § 63.14) to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

\* \* \* \* \*

(3) \* \* \*

m<sub>volatiles</sub> = total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt

compounds, determined according to Method 24 in appendix A-7 of part 60, or according to ASTM D2369-10 (2015) Standard Test Method for Volatile Content of Coatings (incorporated by reference, see § 63.14), grams volatile matter per liter coating.

$D_{avg}$  = average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-13, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see § 63.14), ASTM D2111-10 (2015), "Standard Test Methods for Specific Gravity of Halogenated Organic Solvents and Their Admixtures" (incorporated by reference, see § 63.14; if you use this method, the specific gravity must be corrected to a standard temperature), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-13 or ASTM D2111-10 (2015) test results and other information sources, the test results will take precedence.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM Method D1475-13, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see § 63.14), ASTM D2111-10 (2015), "Standard Test Methods for Specific Gravity of Halogenated Organic Solvents and Their Admixtures" (incorporated by reference, see § 63.14; if you use this method, the specific gravity must be corrected to a standard temperature), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between test results from ASTM Method D1475-13 or ASTM D2111-10 (2015) and the supplier's or manufacturer's information, the test results will take precedence.

\* \* \* \* \*  
■ 11. Section 63.4160 is amended by revising paragraphs (a)(1) and (b)(1) to read as follows:

**§ 63.4160 By what date must I conduct performance tests and other initial compliance demonstrations?**

(a) \* \* \*  
(1) All emission capture systems, add-on control devices, and CPMS you use to demonstrate compliance must be installed and operating no later than the applicable compliance date specified in § 63.4083. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.4164, 63.4165,

and 63.4166, and establish the operating limits required by § 63.4092 no later than the compliance date specified in § 63.4083. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.4161(h), you must initiate the first material balance no later than the compliance date specified in § 63.4083.

\* \* \* \* \*

(b) \* \* \*

(1) All emission capture systems, add-on control devices, and CPMS you use to demonstrate compliance must be installed and operating no later than the applicable compliance date specified in § 63.4083. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.4164, 63.4165, and 63.4166, and establish the operating limits required by § 63.4092 no later than 180 days after the applicable compliance date specified in § 63.4083. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.4161(h), you must initiate the first material balance no later than 180 days after the applicable compliance date specified in § 63.4083.

\* \* \* \* \*

■ 12. Section 63.4161 is amended by revising paragraph (g) introductory text and paragraph (h)(3) to read as follows:

**§ 63.4161 How do I demonstrate initial compliance?**

\* \* \* \* \*

(g) *Calculate the organic HAP emissions reduction for controlled coating operations not using liquid-liquid material balance.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate organic HAP emissions reduction, using Equation 1 of this section, by applying the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during the compliance period. For any period of time a deviation specified in § 63.4163(c) or (d) occurs in the controlled coating operation, you must assume zero efficiency for the emission capture system and add-on control device. For the purposes of completing the compliance calculations, you must treat

the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation. You must not include those materials in the calculations of organic HAP emissions reduction in Equation 1 of this section.

\* \* \* \* \*

(h) \* \* \*

(3) Determine the mass fraction of volatile organic matter for each coating used in the coating operation controlled by the solvent recovery system during the compliance period, kilogram, volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 in appendix A-7 of part 60, ASTM D2369-10 (2015), "Test Method for Volatile Content of Coatings" (incorporated by reference, see § 63.14), or an EPA approved alternative method. Alternatively, you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24, ASTM D2369-10 (2015), or an approved alternative method, the test method results will govern.

\* \* \* \* \*

■ 13. Section 63.4163 is amended by revising paragraph (e) and removing and reserving paragraph (h) to read as follows:

**§ 63.4163 How do I demonstrate continuous compliance with the emission limitations?**

\* \* \* \* \*

(e) You must demonstrate continuous compliance with the work practice standards in § 63.4093. If you did not develop a work practice plan, did not implement the plan, or did not keep the records required by § 63.4130(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§ 63.4110(b)(6) and 63.4120(g).

\* \* \* \* \*

■ 14. Section 63.4164 is amended by revising paragraph (a) introductory text and paragraph (a)(1) to read as follows:

**§ 63.4164 What are the general requirements for performance tests?**

(a) You must conduct each performance test required by § 63.4160 according to the requirements in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for

the coating operation. Operations during periods of startup, shutdown, or nonoperation do not constitute representative conditions for purposes of conducting a performance test. The owner or operator may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

■ 15. Section 63.4166 is amended by revising paragraph (b) introductory text to read as follows:

**§ 63.4166 How do I determine the add-on control device emission destruction or removal efficiency?**

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A in appendix A-7 of part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements. You may use Method 18 in appendix A-6 of part 60 to subtract methane emissions from measured total gaseous organic mass emissions as carbon.

■ 16. Section 63.4168 is amended by revising paragraphs (a)(4), (a)(5), and (c)(3) introductory text to read as follows:

**§ 63.4168 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?**

(4) You must maintain the CPMS at all times in accordance with § 63.4100(b) and have readily available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times in accordance with § 63.4100(b).

(3) For each gas temperature monitoring device, you must comply with the requirements in paragraphs (c)(3)(i) through (vii) of this section. For the purposes of this paragraph (c)(3), a thermocouple is part of the temperature sensor.

■ 17. Section 63.4181 is amended by adding, in alphabetical order, definitions for “Air-assisted airless spray”, “Airless spray”, “Electrostatic spray”, “High-volume, Low-pressure spray” and revising the definition for “Deviation” to read as follows:

**§ 63.4181 What definitions apply to this subpart?**

*Air-assisted airless spray* means any paint spray technology that spray uses compressed air to shape and distribute the fan of atomized paint, but still uses fluid pressure to create the atomized paint.

*Airless spray* means any paint spray technology that relies solely on the fluid pressure of the paint to create an atomized paint spray pattern and does

not apply any atomizing compressed air to the paint before it leaves the paint nozzle.

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

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

(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.

*Electrostatic spray* is a method of applying a spray coating in which an electrical charge is applied to the coating and the substrate is grounded. The coating is attracted to the substrate by the electrostatic potential between them.

*High-volume, low-pressure spray* means spray equipment that is used to apply coating by means of a spray gun that operates at 10.0 psig of atomizing air pressure or less at the air cap.

■ 18. Table 2 to Subpart NNNN of Part 63 is revised to read as follows:

**Table 2 to Subpart NNNN of Part 63—Applicability of General Provisions to Subpart NNNN**

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

Citation	Subject	Applicable to subpart NNNN	Explanation
§ 63.1(a)(1)–(12)	General Applicability	Yes.	Applicability to subpart NNNN is also specified in § 63.4081.
§ 63.1(b)(1)–(3)	Initial Applicability Determination	Yes	
§ 63.1(c)(1)	Applicability After Standard Established	Yes.	Area sources are not subject to subpart NNNN.
§ 63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources	No	
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes.	
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes.	
§ 63.2	Definitions	Yes	Additional definitions are Specified in § 63.4181.
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§ 63.4(b)–(c)	Circumvention/Severability	Yes.	
§ 63.5(a)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes.	

Citation	Subject	Applicable to subpart NNNN	Explanation
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.4083 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.4083 specifies the compliance dates.
§ 63.6(e)(1)(i)	Operation and Maintenance	No	See § 63.4900(b) for general duty requirement.
§ 63.6(e)(1)(ii)	Operation and Maintenance	No.	
§ 63.6(e)(1)(iii)	Operation and Maintenance	Yes.	
§ 63.6(e)(3)	SSM Plan	No.	
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	No.	
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of an Alternative Standard	Yes.	
§ 63.6(h)	Compliance With Opacity/Visible Emission standards.	No	Subpart NNNN does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(16)	Extension of Compliance	Yes.	
§ 63.6(j)	Presidential Compliance Exemption	Yes.	
§ 63.7(a)(1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.4164, 63.4165, and 63.4166.
§ 63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section 63.4160 specifies the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2).
§ 63.7(a)(3)	Performance Tests Required By the Administrator.	Yes.	
§ 63.7(b)–(d)	Performance Test Requirements—Notification, Quality Assurance Facilities Necessary for Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§ 63.7(e)(1)	Conduct of performance tests	No	See § 63.4164(a)(1).
§ 63.7(e)(2)–(4)	Conduct of performance tests	Yes.	
§ 63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§ 63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in § 63.4168.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart NNNN does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes.	
§ 63.8(c)(1)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	No.	
§ 63.8(c)(2)–(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in § 63.4168.
§ 63.8(c)(4)	CMS	No	Section 63.4168 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(5)	COMS	No	Subpart NNNN does not have opacity or visible emission standards.
§ 63.8(c)(6)	CMS Requirements	No	Section 63.4168 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(7)	CMS Out-of-Control Periods	Yes.	
§ 63.8(c)(8)	CMS Out-of-Control Periods and Reporting	No	Section 63.4120 requires reporting of CMS out-of-control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart NNNN does not require the use of CEMS.
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes.	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart NNNN does not require the use of CEMS.

Citation	Subject	Applicable to subpart NNNN	Explanation
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.4167 and 63.4168 specify monitoring data reduction.
§ 63.9(a)–(d)	Notification Requirements	Yes.	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart NNNN does not have opacity or visible emission standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart NNNN does not require the use of CEMS.
§ 63.9(h)	Notification of Compliance Status	Yes	Section 63.4110 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§ 63.9(j)	Change in Previous Information	Yes.	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§ 63.4130 and 63.4131.
§ 63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns.	No	See § 63.4130(j).
§ 63.10(b)(2)(ii)	Recordkeeping of Failures to Meet Standards	No	See § 63.4130(j).
§ 63.10(b)(2)(iii)	Recordkeeping Relevant to Maintenance of Air Pollution Control and Monitoring Equipment.	Yes.	
§ 63.10(b)(2)(iv)–(v)	Actions Taken to Minimize Emissions During SSM.	No	See § 63.4130(j)(4) for a record of actions taken to minimize emissions during a deviation from the standard.
§ 63.10(b)(2)(vi)	Records for CMS malfunctions	No	See § 63.4130(j) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§ 63.10(b)(2)(vii)–(xi)	Records	Yes.	
§ 63.10(b)(2)(xii)	Records	Yes.	
§ 63.10(b)(2)(xiii)		No	Subpart NNNN does not require the use of CEMS.
§ 63.10(b)(2)(xiv)		Yes.	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(7)–(8)	Additional Recordkeeping Requirements for Sources with CMS.	No	See § 63.4130(j)(1) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§ 63.10(c)(10)–(14)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(15)	Records Regarding the SSM Plan	No.	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.4120.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.4120(h).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart NNNN does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	No	See § 63.4120(g).
§ 63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart NNNN does not require the use of CEMS.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.4120(g) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart NNNN does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§ 63.11	Control Device Requirements/Flares	No	Subpart NNNN does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information/Confidentiality	Yes.	

■ 19. Subpart NNNN of Part 63 is amended by adding Table 5 to read as follows:

TABLE 5 TO SUBPART NNNN OF PART 63—LIST OF HAZARDOUS AIR POLLUTANTS THAT MUST BE COUNTED TOWARD TOTAL ORGANIC HAP CONTENT IF PRESENT AT 0.1 PERCENT OR MORE BY MASS

Chemical name	CAS No.
1,1,2,2-Tetrachloroethane	79-34-5
1,1,2-Trichloroethane	79-00-5
1,1-Dimethylhydrazine	57-14-7
1,2-Dibromo-3-chloropropane	96-12-8
1,2-Diphenylhydrazine	122-66-7
1,3-Butadiene	106-99-0
1,3-Dichloropropene	542-75-6
1,4-Dioxane	123-91-1
2,4,6-Trichlorophenol	88-06-2
2,4/2,6-Dinitrotoluene (mixture)	25321-14-6
2,4-Dinitrotoluene	121-14-2
2,4-Toluene diamine	95-80-7
2-Nitropropane	79-46-9
3,3'-Dichlorobenzidine	91-94-1
3,3'-Dimethoxybenzidine	119-90-4
3,3'-Dimethylbenzidine	119-93-7
4,4'-Methylene bis(2-chloroaniline)	101-14-4
Acetaldehyde	75-07-0
Acrylamide	79-06-1
Acrylonitrile	107-13-1
Allyl chloride	107-05-1
alpha-Hexachlorocyclohexane (a-HCH)	319-84-6
Aniline	62-53-3
Benzene	71-43-2
Benzidine	92-87-5
Benzotrichloride	98-07-7
Benzyl chloride	100-44-7
beta-Hexachlorocyclohexane (b-HCH)	319-85-7
Bis(2-ethylhexyl)phthalate	117-81-7
Bis(chloromethyl)ether	542-88-1
Bromoform	75-25-2
Captan	133-06-2
Carbon tetrachloride	56-23-5
Chlordane	57-74-9
Chlorobenzilate	510-15-6
Chloroform	67-66-3
Chloroprene	126-99-8
Cresols (mixed)	1319-77-3
DDE	3547-04-4
Dichloroethyl ether	111-44-4
Dichlorvos	62-73-7
Epichlorohydrin	106-89-8
Ethyl acrylate	140-88-5
Ethylene dibromide	106-93-4
Ethylene dichloride	107-06-2
Ethylene oxide	75-21-8
Ethylene thiourea	96-45-7
Ethylidene dichloride (1,1-Dichloroethane)	75-34-3
Formaldehyde	50-00-0
Heptachlor	76-44-8
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachloroethane	67-72-1
Hydrazine	302-01-2
Isophorone	78-59-1
Lindane (hexachlorocyclohexane, all isomers)	58-89-9
m-Cresol	108-39-4
Methylene chloride	75-09-2
Naphthalene	91-20-3
Nitrobenzene	98-95-3
Nitrosodimethylamine	62-75-9
o-Cresol	95-48-7
o-Toluidine	95-53-4
Parathion	56-38-2
p-Cresol	106-44-5
p-Dichlorobenzene	106-46-7
Pentachloronitrobenzene	82-68-8
Pentachlorophenol	87-86-5
Propoxur	114-26-1
Propylene dichloride	78-87-5
Propylene oxide	75-56-9

TABLE 5 TO SUBPART NNNN OF PART 63—LIST OF HAZARDOUS AIR POLLUTANTS THAT MUST BE COUNTED TOWARD TOTAL ORGANIC HAP CONTENT IF PRESENT AT 0.1 PERCENT OR MORE BY MASS—Continued

Chemical name	CAS No.
Quinoline .....	91–22–5
Tetrachloroethene .....	127–18–4
Toxaphene .....	8001–35–2
Trichloroethylene .....	79–01–6
Trifluralin .....	1582–09–8
Vinyl bromide .....	593–60–2
Vinyl chloride .....	75–01–4
Vinylidene chloride .....	75–35–4

**Subpart OOOO—National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles**

■ 20. Section 63.4300 is amended by revising paragraphs (a)(3)(i) and (b) and removing paragraph (c) to read as follows:

**§ 63.4300 What are my general requirements for complying with this subpart?**

- (a) \* \* \*
- (3) \* \* \*

(i) The web coating/printing or dyeing/finishing operation(s) must be in compliance with the applicable emission limit in Table 1 to this subpart at all times.

\* \* \* \* \*

(b) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source.

■ 21. Section 63.4310 is amended by revising paragraph (c)(9)(iv) to read as follows:

**§ 63.4310 What notifications must I submit?**

- (c) \* \* \*
- (9) \* \* \*

(iv) A statement of whether or not you developed and implemented the work practice plan required by § 63.4293.

■ 22. Section 63.4311 is amended by:

- a. Revising paragraph (a)(5) introductory text and paragraphs (a)(5)(i) and (a)(5)(iv);
- b. Adding paragraph (a)(5)(v);
- c. Revising paragraph (a)(6) introductory text and paragraph (a)(6)(iii);
- d. Adding paragraph (a)(6)(iv);
- e. Revising paragraph (a)(7) introductory text and paragraphs (a)(7)(iv), (a)(7)(vii) through (ix), (a)(7)(xi), and (a)(7)(xiv) and (xv);
- f. Adding paragraph (a)(7)(xvi);
- g. Revising paragraph (a)(8) introductory text;
- h. Adding paragraph (a)(8)(v);
- i. Revising paragraph (c); and
- j. Adding paragraphs (d) through (g).

The revisions and additions read as follows:

**§ 63.4311 What reports must I submit?**

- (a) \* \* \*

(5) *Deviations: Compliant material option.* If you use the compliant material option, and there was a deviation from the applicable organic HAP content requirements in Table 1 to this subpart, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (v) of this section.

(i) Identification of each coating, printing, slashing, dyeing or finishing material applied that deviated from the emission limit and each thinning or cleaning material applied in web coating/printing operations that contained organic HAP, and the date, time, and duration each was applied.

\* \* \* \* \*

(iv) A statement of the cause of each deviation (including unknown cause, if applicable).

(v) The number of deviations and, for each deviation, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit in Table 1 to this subpart, and a description of

the method used to estimate the emissions.

(6) *Deviations: Emission rate without add-on controls option.* If you use the emission rate without add-on controls option and there was a deviation from the applicable emission limit in Table 1 to this subpart, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iv) of this section.

\* \* \* \* \*

(iii) A statement of the cause of each deviation (including unknown cause, if applicable).

(iv) The number of deviations, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit in Table 1 to this subpart, and a description of the method used to estimate the emissions.

(7) *Deviations: Add-on controls options.* If you use one of the add-on controls options in § 63.4291(a) or (c) and there was a deviation from the applicable emission limit in Table 1 to this subpart or the applicable operating limit(s) in Table 2 to this subpart (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiii), (a)(7)(xv), and (a)(7)(xvi) of this section. If you use the emission rate with add-on controls option and there was a deviation from the applicable work practice standards in § 63.4293(b), the semiannual compliance report must contain the information in paragraph (a)(7)(xiv) of this section.

\* \* \* \* \*

(iv) The date and time that each malfunction of the capture system or add-on control devices started and stopped.

\* \* \* \* \*

(vii) For each instance that the CPMS was inoperative, except for zero (low-level) and high-level checks, the date, time, and duration that the CPMS was inoperative; the cause (including



unknown cause) for the CPMS being inoperative; and descriptions of corrective actions taken.

(viii) For each instance that the CPMS was out-of-control, as specified in § 63.8(c)(7), the date, time, and duration that the CPMS was out-of-control; the cause (including unknown cause) for the CPMS being out-of-control; and descriptions of corrective actions taken.

(ix) The date, time, and duration of each deviation from an operating limit in Table 2 to this subpart, and the date, time, and duration of any bypass of the add-on control device.

(xi) A breakdown of the total duration of the deviations from the operating limits in Table 2 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to control equipment problems, process problems, other known causes, and other unknown causes.

(xiv) For deviations from the work practice standards, the number of deviations, and, for each deviation:

(A) A description of the deviation; the date, time, and duration of the deviation; and the actions you took to minimize emissions in accordance with § 63.4300(b).

(B) The description required in paragraph (a)(7)(xiv)(A) of this section must include a list of the affected sources or equipment for which a deviation occurred and the cause of the deviation (including unknown cause, if applicable).

(xv) For deviations from an emission limit in Table 1 to this subpart or operating limit in Table 2 to this subpart, a statement of the cause of each deviation (including unknown cause, if applicable).

(xvi) For each deviation from an emission limit in Table 1 to this subpart or operating limit in Table 2 to this subpart, a list of the affected sources or equipment for which a deviation occurred, an estimate of the quantity of each regulated pollutant emitted over any emission limit in Table 1 to this subpart, and a description of the method used to estimate the emissions.

(8) *Deviations: Equivalent Emission Rate Option.* If you use the equivalent emission rate option, and there was a deviation from the operating scenarios, as defined in § 63.4371, used to demonstrate initial compliance, the semiannual compliance report must specify the number of deviations during the compliance period and contain the

information in paragraphs (a)(8)(i) through (v) of this section.

(v) For each deviation, the date, time, and duration of the deviation, a list of the affected sources or equipment, and a statement of the cause of the deviation (including an unknown cause, if applicable).

(c) You must submit the results of the performance test required in paragraph (b) of this section following the procedure specified in paragraphs (c)(1) through (3) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>)). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13, unless the Administrator agrees to or specifies an alternate reporting method.

(3) If you claim that some of the performance test information being submitted under paragraph (c)(1) of this section is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (c)(1) of this section.

(d) Beginning on [date 2 years after date of publication of final rule in the **Federal Register**], the owner or operator shall submit the initial notifications required in § 63.9(b) and the notification of compliance status required in § 63.9(h) and § 63.4310(c) to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>)). The owner or operator must upload to CEDRI an electronic copy of each applicable notification in portable document format (PDF). The applicable notification must be submitted by the deadline specified in this subpart, regardless of the method in which the reports are submitted.

Owners or operators who claim that some of the information required to be submitted via CEDRI is confidential business information (CBI) shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Road, Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(e) Beginning on [date 2 years after date of publication of final rule in the **Federal Register**] or once the reporting template has been available on the CEDRI website for one year, whichever date is later, the owner or operator shall submit the semiannual compliance report required in paragraph (a) of this section to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>)). The owner or operator must use the appropriate electronic template on the CEDRI website for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). The date report templates become available will be listed on the CEDRI website. If the reporting form for the semiannual compliance report specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate addresses listed in § 63.13. Once the form has been

available in CEDRI for one year, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is confidential business information (CBI) shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Road, Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(f) If you are required to electronically submit a report through the Compliance and Emissions Data Reporting Interface (CEDRI) in the EPA's Central Data Exchange (CDX), and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning five business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is

solely within the discretion of the Administrator.

(g) If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

■ 23. Section 63.4312 is amended by revising paragraph (i) and paragraph (j) introductory text, and removing and reserving paragraphs (j)(1) and (2) to read as follows:

**§ 63.4312 What records must I keep?**

\* \* \* \* \*

(i) For each deviation from an emission limitation reported under § 63.4311(a)(5) through (8), a record of the information specified in paragraphs (i)(1) through (4) of this section, as applicable:

(1) The date, time, and duration of the deviation, as reported under § 63.4311(a)(5) through (8).

(2) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation, as reported under § 63.4311(a)(5) through (8).

(3) An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in Table 1 to this subpart or any applicable operating limit in Table 2 to this subpart, and a description of the method used to calculate the estimate, as reported under § 63.4311(a)(5) through (8). If you use the equivalent emission rate option to comply with this subpart, a record of the applicable information specified in § 63.4311(a)(8)(ii) through (iv) satisfies this recordkeeping requirement.

(4) A record of actions taken to minimize emissions in accordance with § 63.4300(b) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

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

\* \* \* \* \*

■ 24. Section 63.4313 is amended by revising paragraph (a) to read as follows:

**§ 63.4313 In what form and for how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database. Any records required to be maintained by this subpart that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

\* \* \* \* \*

■ 25. Section 63.4321 is amended by revising paragraphs (e)(1)(i)(A) and (e)(1)(iv) to read as follows:

**§ 63.4321 How do I demonstrate initial compliance with the emission limitations?**

\* \* \* \* \*

(e) \* \* \*

(1) \* \* \*

(i) \* \* \*

(A) Count each organic HAP in Table 6 to this subpart that is measured to be

present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other compounds. For example, if toluene (not listed in Table 6 to this subpart) is measured to be 0.5 percent of the material by mass, you don't have to count it. Express the mass fraction of each organic HAP you count as a value truncated to no more than four places after the decimal point (e.g., 0.3791).

(iv) Information from the supplier or manufacturer of the material. You may rely on information other than that generated by the test methods specified in paragraphs (e)(1)(i) through (iii) of this section, such as manufacturer's formulation data, if it represents each organic HAP in Table 6 to this subpart that is present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other compounds. For example, if toluene (not listed in Table 6 to this subpart) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (e)(1)(i) through (iii) of this section on coating, thinning, or cleaning material, then the test method results will take precedence. Information from the supplier or manufacturer of the printing, slashing, dyeing, or finishing material is sufficient for determining the mass fraction of organic HAP.

■ 26. Section 63.4341 is amended by revising paragraph (e)(4) introductory text and paragraph (f)(4) introductory text to read as follows:

§ 63.4341 How do I demonstrate initial compliance?

\* \* \* \* \*

(e) \* \* \* (4) Calculate the organic HAP emission reduction for each controlled web coating/printing operation not using liquid-liquid material balance. For each controlled web coating/printing operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emissions reductions using Equation 1 of this section. The equation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coating, printing, thinning, and cleaning materials applied in the web coating/printing operation served by the emission capture system and add-on control device during the compliance period. For any period of time a deviation specified in § 63.4342(c) or (d) occurs in the

controlled web coating/printing operation, then you must assume zero efficiency for the emission capture system and add-on control device. Equation 1 of this section treats the coating, printing, thinning, and cleaning materials applied during such a deviation as if they were used on an uncontrolled web coating/printing operation for the time period of the deviation.

\* \* \* \* \*

(f) \* \* \* (4) Calculate the organic HAP emission reduction for each controlled dyeing/finishing operation not using liquid-liquid material balance. For each controlled dyeing/finishing operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emissions reductions using Equation 5 of this section. The equation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the dyeing and finishing materials applied in the dyeing/finishing operation served by the emission capture system and add-on control device during the compliance period. For any period of time a deviation specified in § 63.4342(c) or (d) occurs in the controlled dyeing/finishing operation, then you must assume zero efficiency for the emission capture system and add-on control device. Equation 5 of this section treats the dyeing and finishing materials applied during such a deviation as if they were applied on an uncontrolled dyeing/finishing operation for the time period of the deviation.

\* \* \* \* \*

■ 27. Section 63.4342 is amended by revising paragraph (f) and removing and reserving paragraph (h) to read as follows:

§ 63.4342 How do I demonstrate continuous compliance with the emission limitations?

\* \* \* \* \*

(f) As part of each semiannual compliance report required in § 63.4311, you must identify the coating/printing and dyeing/finishing operation(s) for which you use the emission rate with add-on controls option. If there were no deviations from the applicable emission limitations in §§ 63.4290, 63.4292, and 63.4293, you must submit a statement that, as appropriate, the web coating/printing operations or the dyeing/finishing operations were in compliance with the emission limitations during the reporting period because the organic

HAP emission rate for each compliance period was less than or equal to the applicable emission limit in Table 1 to this subpart, and you achieved the operating limits required by § 63.4292 and the work practice standards required by § 63.4293 during each compliance period.

\* \* \* \* \*

■ 28. Section 63.4351 is amended by revising paragraph (d)(4) to read as follows:

§ 63.4351 How do I demonstrate initial compliance?

\* \* \* \* \*

(d) \* \* \* (4) Calculate the organic HAP emissions reductions for controlled web coating/printing operations not using liquid-liquid material balance. For each controlled web coating/printing operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emissions reductions using Equation 1 of § 63.4341. The equation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coating, printing, thinning, and cleaning materials applied in the web coating/printing operation served by the emission capture system and add-on control device during the compliance period. For any period of time a deviation specified in § 63.4352(c) or (d) occurs in the controlled web coating/printing operation, then you must assume zero efficiency for the emission capture system and add-on control device. Equation 1 of § 63.4341 treats the coating, printing, thinning, and cleaning materials applied during such a deviation as if they were applied on an uncontrolled web coating/printing operation for the time period of the deviation.

\* \* \* \* \*

§ 63.4352 [Amended]

■ 29. Section 63.4352 is amended by removing and reserving paragraph (h). ■ 30. Section 63.4360 is amended by revising paragraph (a) introductory text and paragraph (a)(1) to read as follows.

§ 63.4360 What are the general requirements for performance tests?

(a) You must conduct each performance test required by §§ 63.4340 or 63.4350 according to the requirements in this section, unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative web coating/printing or dyeing/finishing operation operating conditions.* You must conduct the performance test under representative operating conditions for the web coating/printing or dyeing/finishing operation. Operations during periods of startup, shutdown, or nonoperation do not constitute representative conditions for purposes of conducting a performance test. The owner or operator may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

\* \* \* \* \*

■ 31. Section 63.4362 is amended by revising paragraph (b) introductory text to read as follows:

**§ 63.4362 How do I determine the add-on control device emission destruction or removal efficiency?**

\* \* \* \* \*

(b) Measure the volatile organic matter concentration as carbon at the inlet and outlet of the add-on control device simultaneously, using Method 25 or 25A in appendix A-7 of part 60. If you are demonstrating compliance with the oxidizer outlet organic HAP concentration limit, only the outlet volatile organic matter concentration must be determined. The outlet volatile organic matter concentration is determined as the average of the three test runs. You may use Method 18 in appendix A-6 of part 60 to subtract methane emissions from measured volatile organic matter concentration as carbon.

\* \* \* \* \*

■ 32. Section 63.4364 is amended by revising paragraphs (a)(6) through (8) to read as follows:

**§ 63.4364 What are the requirements for CPMS installation, operation, and maintenance?**

(a) \* \* \*

(6) At all times, you must maintain the monitoring system in accordance

with § 63.4300(b) and in proper working order including, but not limited to, keeping readily available necessary parts for routine repairs of the monitoring equipment.

(7) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times in accordance with § 63.4300(b). Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions specified in Table 1 to this subpart. You must use all the data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(8) Except for periods of required quality assurance or control activities, any averaging period during which the CPMS fails to operate and record data continuously as required by paragraph (a)(1) of this section, or which generates data that cannot be included in calculating averages as specified in paragraph (a)(7) of this section, constitutes a deviation, and you must notify the Administrator in accordance with § 63.4311(a).

\* \* \* \* \*

■ 33. Section 63.4371 is amended by adding, in alphabetical order, definitions for “Air-assisted airless spray”, “Airless spray”, “Electrostatic spray”, “High-volume, Low-pressure spray” and revising the definitions of “Deviation” and “No organic HAP” to read as follows:

**§ 63.4371 What definitions apply to this subpart?**

\* \* \* \* \*

*Air-assisted airless spray* means any paint spray technology that spray uses compressed air to shape and distribute the fan of atomized paint, but still uses fluid pressure to create the atomized paint.

*Airless spray* means any paint spray technology that relies solely on the fluid pressure of the paint to create an atomized paint spray pattern and does not apply any atomizing compressed air to the paint before it leaves the paint nozzle.

\* \* \* \* \*

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

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

(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.

\* \* \* \* \*

*Electrostatic spray* is a method of applying a spray coating in which an electrical charge is applied to the coating and the substrate is grounded. The coating is attracted to the substrate by the electrostatic potential between them.

\* \* \* \* \*

*High-volume, low-pressure spray* means spray equipment that is used to apply coating by means of a spray gun that operates at 10.0 psig of atomizing air pressure or less at the air cap.

\* \* \* \* \*

*No organic HAP* means no organic HAP in Table 5 to this subpart is present at 0.1 percent by mass or more and no organic HAP not listed in Table 5 to this subpart is present at 1.0 percent by mass or more. The organic HAP content of a regulated material is determined according to § 63.4321(e)(1).

\* \* \* \* \*

■ 34. Table 3 to Subpart OOOO is revised to read as follows:

**Table 3 to Subpart OOOO of Part 63—Applicability of General Provisions to Subpart OOOO**

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

Citation	Subject	Applicable to subpart OOOO	Explanation
§ 63.1(a)(1)–(12) .....	General Applicability .....	Yes.	Applicability to subpart OOOO is also specified in § 63.4281.
§ 63.1(b)(1)–(3) .....	Initial Applicability Determination .....	Yes .....	
§ 63.1(c)(1) .....	Applicability After Standard Established .....	Yes.	Area sources are not subject to subpart OOOO.
§ 63.1(c)(2)–(3) .....	Applicability of Permit Program for Area Sources .....	No .....	
§ 63.1(c)(4)–(5) .....	Extensions and Notifications .....	Yes.	

Citation	Subject	Applicable to subpart OOOO	Explanation
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes.	
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.4371.
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§ 63.4(b)–(c)	Circumvention/Severability	Yes.	
§ 63.5(a)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes.	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.4283 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.4283 specifies the compliance dates.
§ 63.6(e)(1)(i)	Operation and Maintenance	No	See § 63.4300(b) for general duty requirement.
§ 63.6(e)(1)(ii)	Operation and Maintenance	No.	
§ 63.6(e)(1)(iii)	Operation and Maintenance	Yes.	
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	No.	
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	No.	
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of an Alternative Standard	Yes.	
§ 63.6(h)	Compliance With Opacity/Visible Emission Standards.	No	Subpart OOOO does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(16)	Extension of Compliance	Yes.	
§ 63.6(j)	Presidential Compliance Exemption	Yes.	
§ 63.7(a)(1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.4360, 63.4361, and 63.4362.
§ 63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard.
§ 63.7(a)(3)	Performance Tests Required by the Administrator.	Yes.	
§ 63.7(b)–(d)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard.
§ 63.7(e)(1)	Conduct of performance tests	No	See § 63.4360.
§ 63.7(e)(2)–(4)	Conduct of performance tests	Yes.	
§ 63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§ 63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in § 63.4364.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart OOOO does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes.	
§ 63.8(c)(1)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	No	Section 63.4364 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(2)–(3)	CMS Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for CMS operations and maintenance are specified in § 63.4364.

Citation	Subject	Applicable to subpart OOOO	Explanation
§ 63.8(c)(4)	CMS	No	Section 63.4364 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(5)	COMS	No	Subpart OOOO does not have opacity or visible emission standards.
§ 63.8(c)(6)	CMS Requirements	No	Section 63.4364 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(7)	CMS Out of Control Periods	Yes.	
§ 63.8(c)(8)	CMS Out of Control Periods and Reporting	No	Section 63.4311 requires reporting of CMS out-of-control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart OOOO does not require the use of CEMS.
§ 63.8(f)(1)–(5)	Use of Alternative Monitoring Method	Yes.	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart OOOO does not require the use of CEMS.
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.4342 and 63.4352 specify monitoring data reduction.
§ 63.9(a)	Applicability and General Information	Yes.	
§ 63.9(b)	Initial Notifications	No	Subpart OOOO provides 1 year for an existing source to submit an initial notification.
§ 63.9(c)	Request for Extension of Compliance	Yes.	
§ 63.9(d)	Notification that Source is Subject to Special Compliance Requirements.	Yes.	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart OOOO does not have opacity or visible emission standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart OOOO does not require the use of CEMS.
§ 63.9(h)	Notification of Compliance Status	Yes	Section 63.4310 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§ 63.9(j)	Change in Previous Information	Yes.	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional Requirements are specified in §§ 63.4312 and 63.4313.
§ 63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns based on EPA Guidance.	No	See § 63.4312(i)
§ 63.10(b)(2)(ii)	Recordkeeping of Failures to Meet Standards	No	See § 63.4312(i).
§ 63.10(b)(2)(iii)	Recordkeeping Relevant to Maintenance of Air Pollution Control and Monitoring Equipment.	Yes.	
§ 63.10(b)(2)(iv)–(v)	Actions Taken to Minimize Emissions During Startup, Shutdown, and Malfunction.	No	See § 63.4312(i)(5) for a record of actions taken to minimize emissions during a deviation from the standard.
§ 63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	No	See § 63.4312(i) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§ 63.10(b)(2)(vii)–(xi)	Records	Yes.	
§ 63.10(b)(2)(xii)	Records	Yes.	
§ 63.10(b)(2)(xiii)		No	Subpart OOOO does not require the use of CEMS.
§ 63.10(b)(2)(xiv)		Yes.	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(7)–(8)	Additional Recordkeeping Requirements for Sources with CMS.	No	See § 63.4312(i)(1) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§ 63.10(c)(10)–(14)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(15)	Records Regarding the Startup, Shutdown, and Malfunction Plan.	No.	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.4311.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.4311(b).

Citation	Subject	Applicable to subpart OOOO	Explanation
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart OOOO does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	No	See § 63.4311(a)(7).
§ 63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart OOOO does not require the use of CEMS.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.4311(a) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart OOOO does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§ 63.11	Control Device Requirements/Flares	No	Subpart OOOO does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes	ASNI/ASME PTC 19.10–1981, Part 10
§ 63.15	Availability of Information/Confidentiality	Yes.	

■ 35. Subpart OOOO of Part 63 is amended by adding Table 6 to read as follows:

TABLE 6 TO SUBPART OOOO OF PART 63—LIST OF HAZARDOUS AIR POLLUTANTS THAT MUST BE COUNTED TOWARD TOTAL ORGANIC HAP CONTENT IF PRESENT AT 0.1 PERCENT OR MORE BY MASS

Chemical name	CAS No.
1,1,2,2-Tetrachloroethane	79–34–5
1,1,2-Trichloroethane	79–00–5
1,1-Dimethylhydrazine	57–14–7
1,2-Dibromo-3-chloropropane	96–12–8
1,2-Diphenylhydrazine	122–66–7
1,3-Butadiene	106–99–0
1,3-Dichloropropene	542–75–6
1,4-Dioxane	123–91–1
2,4,6-Trichlorophenol	88–06–2
2,4/2,6-Dinitrotoluene (mixture)	25321–14–6
2,4-Dinitrotoluene	121–14–2
2,4-Toluene diamine	95–80–7
2-Nitropropane	79–46–9
3,3'-Dichlorobenzidine	91–94–1
3,3'-Dimethoxybenzidine	119–90–4
3,3'-Dimethylbenzidine	119–93–7
4,4'-Methylene bis(2-chloroaniline)	101–14–4
Acetaldehyde	75–07–0
Acrylamide	79–06–1
Acrylonitrile	107–13–1
Allyl chloride	107–05–1
alpha-Hexachlorocyclohexane (a-HCH)	319–84–6
Aniline	62–53–3
Benzene	71–43–2
Benzidine	92–87–5
Benzotrichloride	98–07–7
Benzyl chloride	100–44–7
beta-Hexachlorocyclohexane (b-HCH)	319–85–7
Bis(2-ethylhexyl)phthalate	117–81–7
Bis(chloromethyl)ether	542–88–1
Bromoform	75–25–2
Captan	133–06–2
Carbon tetrachloride	56–23–5
Chlordane	57–74–9
Chlorobenzilate	510–15–6
Chloroform	67–66–3
Chloroprene	126–99–8
Cresols (mixed)	1319–77–3
DDE	3547–04–4
Dichloroethyl ether	111–44–4
Dichlorvos	62–73–7
Epichlorohydrin	106–89–8
Ethyl acrylate	140–88–5

TABLE 6 TO SUBPART OOOO OF PART 63—LIST OF HAZARDOUS AIR POLLUTANTS THAT MUST BE COUNTED TOWARD TOTAL ORGANIC HAP CONTENT IF PRESENT AT 0.1 PERCENT OR MORE BY MASS—Continued

Chemical name	CAS No.
Ethylene dibromide .....	106-93-4
Ethylene dichloride .....	107-06-2
Ethylene oxide .....	75-21-8
Ethylene thiourea .....	96-45-7
Ethylidene dichloride (1,1-Dichloroethane) .....	75-34-3
Formaldehyde .....	50-00-0
Heptachlor .....	76-44-8
Hexachlorobenzene .....	118-74-1
Hexachlorobutadiene .....	87-68-3
Hexachloroethane .....	67-72-1
Hydrazine .....	302-01-2
Isophorone .....	78-59-1
Lindane (hexachlorocyclohexane, all isomers) .....	58-89-9
m-Cresol .....	108-39-4
Methylene chloride .....	75-09-2
Naphthalene .....	91-20-3
Nitrobenzene .....	98-95-3
Nitrosodimethylamine .....	62-75-9
o-Cresol .....	95-48-7
o-Toluidine .....	95-53-4
Parathion .....	56-38-2
p-Cresol .....	106-44-5
p-Dichlorobenzene .....	106-46-7
Pentachloronitrobenzene .....	82-68-8
Pentachlorophenol .....	87-86-5
Propoxur .....	114-26-1
Propylene dichloride .....	78-87-5
Propylene oxide .....	75-56-9
Quinoline .....	91-22-5
Tetrachloroethene .....	127-18-4
Toxaphene .....	8001-35-2
Trichloroethylene .....	79-01-6
Trifluralin .....	1582-09-8
Vinyl bromide .....	593-60-2
Vinyl chloride .....	75-01-4
Vinylidene chloride .....	75-35-4

**Subpart RRRR—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture**

■ 36. Section 63.4894 is added to read as follows:

**§ 63.4894 What transfer efficiency requirement must I meet?**

(a) For any spray-applied coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, you are required to meet a transfer efficiency of 65 percent or use the spray coating application method specified in paragraph (b) of this section. For any spray-applied coating operation(s) for which you use the emission rate with add-on controls option, the transfer efficiency requirement does not apply.

(b) As an alternative to the transfer efficiency requirement in paragraph (a) of this section, for any spray-applied coating operation(s) for which you use the compliant material option or the emission rate without add-on controls

option, you may apply all spray-applied coatings using high-volume, low-pressure (HVLP) spray equipment; electrostatic application; airless spray equipment; or air-assisted airless spray equipment, except as specified in paragraphs (b)(1) of this section. You must also meet the requirements in paragraph (b)(2) of this section.

(1) You may apply spray-applied coatings using an alternative coating spray application method if you demonstrate that the alternative method achieves a transfer efficiency equivalent to or better than 65 percent, using a procedure equivalent to the California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" (incorporated by reference, see § 63.14 of subpart A of this part) and following guidelines equivalent to "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002" (incorporated by reference, see § 63.14 of subpart A of this part). For the

purposes of this section, when using these equivalent guidelines or procedures, you are not required to submit an application with the test plan or protocol to the Administrator, conduct the test in the presence of an Administrator, or submit test results to the Administrator for review or approval. Instead you must comply with the recordkeeping requirement in § 63.4130(l).

(2) All spray application equipment must be operated according to company procedures, local specified operating procedures, and/or the manufacturer's specifications, whichever is most stringent, at all times. If you modify spray application equipment, you must maintain emission reductions or a transfer efficiency equivalent to HVLP spray equipment, electrostatic application, airless spray equipment, or air-assisted airless spray equipment, and you must demonstrate equivalency according to paragraph (b)(1) of this section and comply with the recordkeeping requirement in § 63.4130(l).



■ 37. Section 63.4900 is revised to read as follows:

§ 63.4900 What are my general requirements for complying with this subpart?

(a) The affected source must be in compliance at all times with the applicable emission limitations specified in §§ 63.4890, 63.4892, and 63.4893.

(b) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source.

(c) Reserved.

■ 38. Section 63.4910 is amended by revising paragraph (c)(9) introductory text and removing paragraph (c)(9)(v) to read as follows:

§ 63.4910 What notifications must I submit?

\* \* \* \* \*

(c) \* \* \*

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section. However, the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4961(j).

\* \* \* \* \*

■ 39. Section 63.4920 is amended by:

■ a. Revising paragraph (a)(3) introductory text, paragraph (a)(4), and paragraphs (a)(5)(i) and (iv);

■ b. Adding new paragraph (a)(5)(v);

■ c. Revising paragraph (a)(6) introductory text and paragraph (a)(6)(v);

■ d. Adding new paragraph (a)(6)(vi);

■ e. Revising paragraph (a)(7) introductory text and paragraphs (a)(7)(vi), (a)(7)(ix) through (xi), and (a)(7)(xiii), (xvi), and (xvii);

■ f. Adding new paragraph (a)(7)(xviii); and

■ g. Removing and reserving paragraph (c).

The revisions and additions read as follows:

§ 63.4920 What reports must I submit?

(a) \* \* \*

(3) General requirements. The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (v) of this section, and the information specified in paragraphs (a)(4) through (7) of this section that is applicable to your affected source.

\* \* \* \* \*

(4) No deviations. If there were no deviations from the emission limits, operating limits, and work practice standards in §§ 63.4890, 63.4892, and 63.4893, respectively, that apply to you, the semiannual compliance report must include an affirmative statement that there were no deviations from the emission limits, operating limits, or work practice standards in §§ 63.4890, 63.4892, and 63.4893 during the reporting period. If there were no deviations from these emission limitations, the semiannual compliance report must include the affirmative statement that is described in either § 63.4942(c), § 63.4952(c), or § 63.4962(f), as applicable. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period as specified in § 63.8(c)(7).

(5) \* \* \*

(i) Identification of each coating used that deviated from the emission limit, and of each thinner and cleaning material used that contained organic HAP, and the date, time, and duration each was used.

\* \* \* \* \*

(iv) A statement of the cause of each deviation (including unknown cause, if applicable).

(v) The number of deviations and, for each deviation, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit in § 63.4890, and a description of the method used to estimate the emissions.

(6) Deviations: Emission rate without add-on controls option. If you used the emission rate without add-on controls option, and there was a deviation from any applicable emission limit in § 63.4890, the semiannual compliance

report must contain the information in paragraphs (a)(6)(i) through (vi) of this section. You do not need to submit background data supporting these calculations, for example, information provided by materials suppliers or manufacturers, or test reports.

\* \* \* \* \*

(v) A statement of the cause of each deviation (including unknown cause, if applicable).

(vi) The number of deviations, a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit in § 63.4890, and a description of the method used to estimate the emissions.

(7) Deviations: Emission rate with add-on controls option. If you used the emission rate with add-on controls option, and there was a deviation from the applicable emission limit in § 63.4890 or the applicable operating limit(s) in Table 1 to this subpart (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xv), (a)(7)(xvii), and (a)(7)(xviii) of this section. If you use the emission rate with add-on controls option and there was a deviation from the work practice standards in § 63.4893(b), the semiannual compliance report must contain the information in paragraph (a)(7)(xvi) of this section. You do not need to submit background data supporting these calculations, for example, information provided by materials suppliers or manufacturers, or test reports.

\* \* \* \* \*

(vi) The date and time that each malfunction of the capture system or add-on control devices started and stopped.

\* \* \* \* \*

(ix) For each instance that the CPMS was inoperative, except for zero (low-level) and high-level checks, the date, time, and duration that the CPMS was inoperative; the cause (including unknown cause) for the CPMS being inoperative, and descriptions of corrective actions taken.

(x) For each instance that the CPMS was out-of-control, as specified in § 63.8(c)(7), the date, time, and duration that the CPMS was out-of-control; the cause (including unknown cause) for the CPMS being out-of-control; and descriptions of corrective actions taken.

(xi) The date, time, and duration of each deviation from an operating limit in Table 1 to this subpart; and the date,

time, and duration of any bypass of the add-on control device.

\* \* \* \* \*

(xiii) A breakdown of the total duration of the deviations from the operating limits in Table 1 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to control equipment problems, process problems, other known causes, and other unknown causes.

\* \* \* \* \*

(xvi) For deviations from the work practice standards in § 63.4893(b), the number of deviations, and, for each deviation:

(A) A description of the deviation; the date, time, and duration of the deviation; and the actions you took to minimize emissions in accordance with § 63.4900(b).

(B) The description required in paragraph (a)(7)(xvi)(A) of this section must include a list of the affected sources or equipment for which a deviation occurred and the cause of the deviation (including unknown cause, if applicable).

(xvii) For deviations from an emission limit in § 63.4890 or operating limit in Table 1 to this subpart, a statement of the cause of each deviation (including unknown cause, if applicable).

(xviii) For each deviation from an emission limit in § 63.4890 or operating limit in Table 1 to this subpart, a list of the affected sources or equipment for which a deviation occurred, an estimate of the quantity of each regulated pollutant emitted over any emission limit in § 63.4890, and a description of the method used to estimate the emissions.

\* \* \* \* \*

■ 40. Section 63.4921 is added to read as follows:

**§ 63.4921 What are my electronic reporting requirements?**

(a) You must submit the results of the performance test required § 63.4920(b) following the procedure specified in paragraphs (a)(1) through (3) of this section:

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test, you must submit the results of the performance test to the EPA via the CEDRI. CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). Performance test data must be submitted in a file format

generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13, unless the Administrator agrees to or specifies an alternate reporting method.

(3) If you claim that some of the performance test information being submitted under paragraph (a)(1) of this section is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage medium to the EPA. The electronic medium must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Road, Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (a)(1) of this section.

(b) Beginning on [date 2 years after date of publication of final rule in the **Federal Register**], the owner or operator shall submit the initial notifications required in § 63.9(b) and the notification of compliance status required in § 63.9(h) and § 63.4910(c) to the EPA via the CEDRI. CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The owner or operator must upload to CEDRI an electronic copy of each applicable notification in portable document format (PDF). The applicable notification must be submitted by the deadline specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is Confidential Business Information (CBI) shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/

OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Road, Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(c) Beginning on [date 2 years after date of publication of final rule in the **Federal Register**] or once the reporting template has been available on the CEDRI website for one year, whichever date is later, the owner or operator shall submit the semiannual compliance report required in § 63.4920 to the EPA via the CEDRI. CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The owner or operator must use the appropriate electronic template on the CEDRI website for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). The data report templates become available will be listed on the CEDRI website. If the reporting form for the semiannual compliance report specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate addresses listed in § 63.13. Once the form has been available in CEDRI for one year, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. Owners or operators who claim that some of the information required to be submitted via CEDRI is CBI shall submit a complete report generated using the appropriate form in CEDRI or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the EPA's CEDRI website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage medium to the EPA. The electronic medium shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Road, Durham, NC 27703. The same file with the CBI omitted shall be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(d) If you are required to electronically submit a report through the CEDRI in the EPA's Central Data Exchange (CDX), and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning five business

days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(e) If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of

the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

■ 41. Section 63.4930 is amended by revising paragraph (j) and paragraph (k) introductory text, and removing and reserving paragraphs (k)(1) and (2) to read as follows:

**§ 63.4930 What records must I keep?**

\* \* \* \* \*

(j) For each deviation from an emission limitation reported under § 63.4920(a)(5), (a)(6), and (a)(7), a record of the information specified in paragraphs (j)(1) through (4) of this section, as applicable.

(1) The date, time, and duration of each deviation, as reported under § 63.4920(a)(5), (a)(6), and (a)(7).

(2) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation, as reported under § 63.4920(a)(5), (a)(6), and (a)(7).

(3) An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit in § 63.4890 or any applicable operating limit(s) in Table 1 to this subpart, and a description of the method used to calculate the estimate, as reported under § 63.4920(a)(5), (a)(6), and (a)(7).

(4) A record of actions taken to minimize emissions in accordance with § 63.4900(b) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(k) If you use the emission rate with add-on controls option, you must also keep the records specified in paragraphs (k)(3) through (8) of this section.

\* \* \* \* \*

■ 42. Section 63.4931 is amended by revising paragraph (a) introductory text to read as follows:

**§ 63.4931 In what form and for how long must I keep my records?**

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

records required to be maintained by this subpart that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

\* \* \* \* \*

■ 43. Section 63.4941 is amended by revising paragraphs (a)(1)(i), (a)(2) and (4), (b)(1), parameters "m<sub>volatiles</sub>" and "D<sub>avg</sub>" of Equation 1 of paragraph (b)(3), and paragraph (c) to read as follows:

**§ 63.4941 How do I demonstrate initial compliance with the emission limitations?**

\* \* \* \* \*

(a) \* \* \*

(1) \* \* \*

(i) Count each organic HAP in Table 5 to this subpart that is measured to be present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not listed in Table 5 to this subpart) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (for example, 0.3791).

\* \* \* \* \*

(2) *Method 24 in appendix A-7 of part 60.* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. As an alternative to using Method 24, you may use ASTM D2369-10 (2015), "Test Method for Volatile Content of Coatings" (incorporated by reference, see § 63.14).

\* \* \* \* \*

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP in Table 5 to this subpart that is present at 0.1 percent by mass or more and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not listed in Table 5 to this subpart) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence.

\* \* \* \* \*

(b) \* \* \*

(1) *Test results.* You may use ASTM Method D2697–03 (2014), “Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings” (incorporated by reference, *see* § 63.14), or D6093–97, “Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer” (incorporated by reference, *see* § 63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids. Alternatively, you may use another test method once you obtain approval from the Administrator according to the requirements of § 63.7(f).

\* \* \* \* \*

(3) \* \* \*

\* \* \* \* \*

$M_{volatiles}$  = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A–7 of part 60, or according to ASTM D2369–10 (2015) Standard Test Method for Volatile Content of Coatings (incorporated by reference, *see* § 63.14), grams volatile matter per liter coating.

$D_{avg}$  = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475–13, “Standard Test Method for Density of Liquid Coatings, Inks, and Related Products” (incorporated by reference, *see* § 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–13 test results and other information sources, the test results will take precedence.

(c) *Determine the density of each coating.* You must determine the density of each coating used during the compliance period from test results using ASTM Method D1475–13, “Standard Test Method for Density of Liquid Coatings, Inks, and Related Products” (incorporated by reference, *see* § 63.14), or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475–13 test results and the supplier’s or manufacturer’s information, the test results will take precedence.

\* \* \* \* \*

■ 44. Section 63.4951 is amended by revising paragraph (c) to read as follows:

**§ 63.4951 How do I demonstrate initial compliance with the emission limitations?**

\* \* \* \* \*

(c) *Determine the density of each material.* You must determine the density of each coating, thinner, and

cleaning material used during the compliance period according to the requirements in § 63.4941(c).

\* \* \* \* \*

■ 45. Section 63.4961 is amended by revising paragraph (h) introductory text and paragraph (j)(3) to read as follows:

**§ 63.4961 How do I demonstrate initial compliance?**

\* \* \* \* \*

(h) *Calculate the organic HAP emission reduction for controlled coating operations not using liquid-liquid material balance.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction, using Equation 1 of this section. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during the compliance period. For any period of time a deviation specified in § 63.4962(c) or (d) occurs in the controlled coating operation, you must assume zero efficiency for the emission capture system and add-on control device. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation:

\* \* \* \* \*

(j) \* \* \*

(3) Determine the mass fraction of volatile organic matter for each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the compliance period. You may determine the volatile organic matter mass fraction using Method 24 in appendix A–7 of part 60, ASTM D2369–10 (2015), “Test Method for Volatile Content of Coatings” (incorporated by reference, *see* § 63.14), or an EPA-approved alternative method. Alternatively, you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24, ASTM D2369–10 (2015), or an approved alternative method, the test method results will govern.

\* \* \* \* \*

■ 46. Section 63.4963 is amended by revising paragraph (a) introductory text and paragraph (a)(1) to read as follows:

**§ 63.4963 What are the general requirements for performance tests?**

(a) You must conduct each performance test required by § 63.4960 according to the requirements in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or nonoperation do not constitute representative conditions for purposes of conducting a performance test. The owner or operator may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

\* \* \* \* \*

■ 47. Section 63.4965 is amended by revising the paragraph (b) introductory text to read as follows:

**§ 63.4965 How do I determine the add-on control device emission destruction or removal efficiency?**

\* \* \* \* \*

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A in appendix A–7 of part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements. You may use Method 18 in appendix A–6 of part 60 to subtract methane emissions from measured total gaseous organic mass emissions as carbon.

\* \* \* \* \*

■ 48. Section 63.4967 is amended by revising paragraphs (a)(4) and (5) and paragraph (c)(3) introductory text to read as follows:

**§ 63.4967 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?**

(a) \* \* \*

(4) You must maintain the CPMS at all times in accordance with § 63.4900(b) and have readily available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at

all times in accordance with § 63.4900(b).

\* \* \* \* \*

(c) \* \* \*

(3) For each gas temperature monitoring device, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (vi) of this section for each gas temperature monitoring device. For the purposes of this paragraph (c)(3), a thermocouple is part of the temperature sensor.

\* \* \* \* \*

■ 49. Section 63.4981 is amended by revising the definition of “Deviation” to read as follows:

**§ 63.4981 What definitions apply to this subpart?**

\* \* \* \* \*

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

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

\* \* \* \* \*

■ 50. Table 2 to Subpart RRRR of Part 63 is revised to read as follows:

**Table 2 to Subpart RRRR of Part 63—Applicability of General Provisions to Subpart RRRR**

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

Citation	Subject	Applicable to subpart	Explanation
§ 63.1(a)(1)–(12)	General Applicability	Yes.	
§ 63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart RRRR is also specified in § 63.4881.
§ 63.1(c)(1)	Applicability After Standard Established	Yes.	
§ 63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to subpart RRRR.
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes.	
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes.	
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.4981.
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§ 63.4(b)–(c)	Circumvention/Severability	Yes.	
§ 63.5(a)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes.	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.4883 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.4883 specifies the compliance dates.
§ 63.6(e)(1)(i)	Operation and Maintenance	No	See § 63.4900(b) for general duty requirement.
§ 63.6(e)(1)(ii)	Operation and Maintenance	No.	
§ 63.6(e)(1)(iii)	Operation and Maintenance	Yes.	
§ 63.6(e)(3)	SSM Plan	No.	
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	No.	
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of Alternative Standards	Yes.	
§ 63.6(h)	Compliance With Opacity/Visible Emission Standards.	No	Subpart RRRR does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(16)	Extension of Compliance	Yes.	
§ 63.6(j)	Presidential Compliance Exemption	Yes.	
§ 63.7(a)(1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources using an add-on control device to comply with the standards. Additional requirements for performance testing are specified in §§ 63.4963, 63.4964, and 63.4965.
§ 63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section 63.4960 specifies the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2).
§ 63.7(a)(3)	Performance Tests Required by the Administrator.	Yes.	

Citation	Subject	Applicable to subpart	Explanation
§ 63.7(b)–(d)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.7(e)(1)	Conduct of performance tests	No	See § 63.4963(a)(1).
§ 63.7(e)(2)–(4)	Conduct of performance tests	Yes.	
§ 63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§ 63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in § 63.4967.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart RRRR does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes.	
§ 63.8(c)(1)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	No.	
§ 63.8(c)(2)–(3)	CMS Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for CMS operations and maintenance are specified in § 63.4967.
§ 63.8(c)(4)	CMS	No	Section 63.4967 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(5)	COMS	No	Subpart RRRR does not have opacity or visible emissions standards.
§ 63.8(c)(6)	CMS Requirements	No	Section 63.4967 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(7)	CMS Out-of-Control Periods	Yes.	
§ 63.8(c)(8)	CMS Out-of-Control Periods Reporting	No	Section 63.4920 requires reporting of CMS out-of-control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart RRRR does not require the use of CEMS.
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes	§ 63.8(f)(1)–(5).
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart RRRR does not require the use of CEMS.
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.4966 and 63.4967 specify monitoring data reduction.
§ 63.9(a)–(d)	Notification Requirements	Yes.	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart RRRR does not have opacity or visible emission standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart RRRR does not require the use of CEMS.
§ 63.9(h)	Notification of Compliance Status	Yes	Section 63.4910 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§ 63.9(j)	Change in Previous Information	Yes.	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§ 63.4930 and 63.4931.
§ 63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns.	No	See § 63.4930(j).
§ 63.10(b)(2)(ii)	Recordkeeping of Failures to Meet Standards	No	See § 63.4930(j).
§ 63.10(b)(2)(iii)	Recordkeeping Relevant to Maintenance of Air Pollution Control and Monitoring Equipment.	Yes.	
§ 63.10(b)(2)(iv)–(v)	Actions Taken to Minimize Emissions During SSM.	No	See § 63.4930(j)(4) for a record of actions taken to minimize emissions during a deviation from the standard.

Citation	Subject	Applicable to subpart	Explanation
§ 63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	No	See § 63.4930(j) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§ 63.10(b)(2)(vii)–(xi)	Records	Yes.	Subpart RRRR does not require the use of CEMS.
§ 63.10(b)(2)(xii)	Records	Yes.	
§ 63.10(b)(2)(xiii)		No	
§ 63.10(b)(2)(xiv)		Yes.	Subpart RRRR does not require the use of CEMS.
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	See § 63.4930(j)(1) for records of periods of deviation from the standard, including instances where a CMS is inoperative or out-of-control.
§ 63.10(c)(7)–(8)	Additional Recordkeeping Requirements for Sources with CMS.	No	
§ 63.10(c)(10)–(14)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(15)	Records Regarding the SSM Plan	No.	Additional requirements are specified in § 63.4920.
§ 63.10(d)(1)	General Reporting Requirements	Yes	
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.4920(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart RRRR does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes.	See § 63.4920(a)(7).
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	No	
§ 63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart RRRR does not require the use of CEMS.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.4920(b) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart RRRR does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	Subpart RRRR does not specify use of flares for compliance.
§ 63.11	Control Device Requirements/Flares	No	
§ 63.12	State Authority and Delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information/Confidentiality	Yes.	

■ 51. Subpart RRRR of Part 63 is amended to add Table 5 to read as follows:

TABLE 5 TO SUBPART RRRR OF PART 63—LIST OF HAZARDOUS AIR POLLUTANTS THAT MUST BE COUNTED TOWARD TOTAL ORGANIC HAP CONTENT IF PRESENT AT 0.1 PERCENT OR MORE BY MASS

Chemical name	CAS No.
1,1,2,2-Tetrachloroethane	79–34–5
1,1,2-Trichloroethane	79–00–5
1,1-Dimethylhydrazine	57–14–7
1,2-Dibromo-3-chloropropane	96–12–8
1,2-Diphenylhydrazine	122–66–7
1,3-Butadiene	106–99–0
1,3-Dichloropropene	542–75–6
1,4-Dioxane	123–91–1
2,4,6-Trichlorophenol	88–06–2
2,4/2,6-Dinitrotoluene (mixture)	25321–14–6
2,4-Dinitrotoluene	121–14–2
2,4-Toluene diamine	95–80–7
2-Nitropropane	79–46–9
3,3'-Dichlorobenzidine	91–94–1
3,3'-Dimethoxybenzidine	119–90–4
3,3'-Dimethylbenzidine	119–93–7
4,4'-Methylene bis(2-chloroaniline)	101–14–4
Acetaldehyde	75–07–0
Acrylamide	79–06–1
Acrylonitrile	107–13–1

TABLE 5 TO SUBPART RRRR OF PART 63—LIST OF HAZARDOUS AIR POLLUTANTS THAT MUST BE COUNTED TOWARD TOTAL ORGANIC HAP CONTENT IF PRESENT AT 0.1 PERCENT OR MORE BY MASS—Continued

Chemical name	CAS No.
Allyl chloride	107-05-1
alpha-Hexachlorocyclohexane (a-HCH)	319-84-6
Aniline	62-53-3
Benzene	71-43-2
Benzidine	92-87-5
Benzotrichloride	98-07-7
Benzyl chloride	100-44-7
beta-Hexachlorocyclohexane (b-HCH)	319-85-7
Bis(2-ethylhexyl)phthalate	117-81-7
Bis(chloromethyl)ether	542-88-1
Bromoform	75-25-2
Captan	133-06-2
Carbon tetrachloride	56-23-5
Chlordane	57-74-9
Chlorobenzilate	510-15-6
Chloroform	67-66-3
Chloroprene	126-99-8
Cresols (mixed)	1319-77-3
DDE	3547-04-4
Dichloroethyl ether	111-44-4
Dichlorvos	62-73-7
Epichlorohydrin	106-89-8
Ethyl acrylate	140-88-5
Ethylene dibromide	106-93-4
Ethylene dichloride	107-06-2
Ethylene oxide	75-21-8
Ethylene thiourea	96-45-7
Ethylidene dichloride (1,1-Dichloroethane)	75-34-3
Formaldehyde	50-00-0
Heptachlor	76-44-8
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachloroethane	67-72-1
Hydrazine	302-01-2
Isophorone	78-59-1
Lindane (hexachlorocyclohexane, all isomers)	58-89-9
m-Cresol	108-39-4
Methylene chloride	75-09-2
Naphthalene	91-20-3
Nitrobenzene	98-95-3
Nitrosodimethylamine	62-75-9
o-Cresol	95-48-7
o-Toluidine	95-53-4
Parathion	56-38-2
p-Cresol	106-44-5
p-Dichlorobenzene	106-46-7
Pentachloronitrobenzene	82-68-8
Pentachlorophenol	87-86-5
Propoxur	114-26-1
Propylene dichloride	78-87-5
Propylene oxide	75-56-9
Quinoline	91-22-5
Tetrachloroethene	127-18-4
Toxaphene	8001-35-2
Trichloroethylene	79-01-6
Trifluralin	1582-09-8
Vinyl bromide	593-60-2
Vinyl chloride	75-01-4
Vinylidene chloride	75-35-4

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