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40 CFR Part 63

National Emission Standards for Aerospace Manufacturing and Rework  
Facilities Risk and Technology Review; Final Rule

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

[EPA-HQ-OAR-2014-0830; FRL-9936-64-OAR]

RIN 2060-AQ99

**National Emission Standards for Aerospace Manufacturing and Rework Facilities Risk and Technology Review****AGENCY:** Environmental Protection Agency.**ACTION:** Final rule.

**SUMMARY:** This action finalizes the residual risk and technology review (RTR) and the rule review the Environmental Protection Agency (EPA) conducted for Aerospace Manufacturing and Rework Facilities under the national emissions standards for hazardous air pollutants (NESHAP). In this action, we are finalizing several amendments to the NESHAP based on the review of these standards. These final amendments add limitations to reduce organic and inorganic emissions of hazardous air pollutants (HAP) from specialty coating application operations; remove exemptions for periods of startup, shutdown and malfunction (SSM) so that affected units will be subject to the emission standards at all times; and revise provisions to address recordkeeping and reporting requirements applicable to periods of SSM. These final amendments include a requirement to report performance testing through the EPA's Compliance and Emissions Data Reporting Interface (CEDRI). This action also makes clarifications to the applicability, definitions, and compliance demonstration provisions, and other technical corrections. The EPA estimates that implementation of this rule will reduce annual HAP emissions by 58 tons.

**DATES:** This final action is effective on December 7, 2015.

**ADDRESSES:** The EPA has established a docket for this rulemaking under Docket ID No. EPA-HQ-OAR-2014-0830. All documents in this docket are listed on the <http://www.regulations.gov> Web site. Although listed in the index, some information is not publicly available, e.g., confidential business information (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 form. Publicly available docket materials are available either electronically through

<http://www.regulations.gov>, or in hard copy at the EPA Docket Center, EPA WJC West Building, Room Number 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time (EST), Monday through Friday. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** For questions about this final action, contact Ms. Kim Teal, Sector Policies and Programs Division (D243-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5580; fax number: (919) 541-5450; and email address: [teal.kim@epa.gov](mailto:teal.kim@epa.gov). For specific information regarding the risk modeling methodology, contact Ted Palma, Health and Environmental Impacts Division (C539-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5470; fax number: (919) 541-0840; and email address: [palma.ted@epa.gov](mailto:palma.ted@epa.gov). For information about the applicability of the NESHAP to a particular entity, contact Patrick Yellin, Office of Enforcement and Compliance Assurance, (202) 564-2970, [yellin.patrick@epa.gov](mailto:yellin.patrick@epa.gov).

**SUPPLEMENTARY INFORMATION:**

*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:

ADAF Age dependent adjustment factor  
 ASTM American Society for Testing and Materials  
 CAA Clean Air Act  
 CARB California Air Resources Board  
 CBI Confidential Business Information  
 CDX Central Data Exchange  
 CEDRI Compliance and Emissions Data Reporting Interface  
 CFR Code of Federal Regulations  
 CTG Control Technique Guideline  
 DoD Department of Defense  
 EPA Environmental Protection Agency  
 ERT Electronic Reporting Tool  
 FAA Federal Aviation Administration  
 FR Federal Register  
 g/L grams/liter  
 HAP Hazardous air pollutants  
 HCl Hydrochloric acid  
 HF Hydrogen fluoride  
 HI Hazard index  
 HQ Hazard quotient  
 HVLP High volume low pressure  
 ICR Information collection request

km Kilometer  
 lb/gal Pounds/gallon  
 MACT Maximum achievable control technology  
 MIR Maximum individual risk  
 mm Hg Millimeters mercury  
 NAAQS National Ambient Air Quality Standards  
 NAICS North American Industry Classification System  
 NASA National Aeronautics and Space Administration  
 NESHAP National Emissions Standards for Hazardous Air Pollutants  
 NRDC Natural Resources Defense Council  
 NTTAA National Technology Transfer and Advancement Act  
 OMB Office of Management and Budget  
 PAH Polycyclic aromatic hydrocarbons  
 PB-HAP Hazardous air pollutants known to be persistent and bio-accumulative in the environment  
 POM Polycyclic organic matter  
 PRA Paperwork Reduction Act (PRA)  
 RACT Reasonably Available Control Technology  
 RCRA Resource Conservation and Recovery Act of 1976  
 REL Reference exposure level  
 RFA Regulatory Flexibility Act  
 RfC Reference concentration  
 RIA Regulatory impact analysis  
 RTR Residual risk and technology review  
 SIP State implementation plan  
 S/L/T State, local, and tribal air pollution control agencies  
 SSM Startup, shutdown and malfunction  
 TOSHI Target organ-specific hazard index  
 tpy Tons per year  
 TTN Technology Transfer Network  
 UMRA Unfunded Mandates Reform Act  
 URE Unit risk estimate  
 VCS Voluntary consensus standard  
 VOC Volatile organic compounds

*Background information.* On February 17, 2015 (80 FR 8392), the EPA proposed revisions to the Aerospace Manufacturing and Rework Facilities NESHAP based on our RTR. In this action, we are finalizing decisions and revisions for this rule. We summarize some of the more significant comments that were timely received regarding the proposed rule and we have provided our responses in this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the response to comments document titled, *National Emissions Standards for Hazardous Air Pollutants: Aerospace Manufacturing and Rework Facilities (Risk and Technology Review)—Summary of Public Comments and Responses* (Docket ID No. EPA-HQ-OAR-2014-0830). The background information also includes discussion and technical analyses of other issues addressed in this final rule. A "track-changes" version of the regulatory language that incorporates the changes in this action is available in the docket.

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

- I. General Information
  - A. Does this action apply to me?
  - B. Where can I get a copy of this document and other related information?
  - C. Judicial Review and Administrative Reconsideration
- II. Background
  - A. What is the statutory authority for this action?
  - B. What is this source category and how does the current NESHAP regulate its HAP emissions?
  - C. What changes did we propose for the Aerospace Manufacturing and Rework Facilities source category in our February 17, 2015 RTR proposal?
- III. What is included in this final rule?
  - A. What are the final rule amendments based on the risk review for the Aerospace Manufacturing and Rework Facilities source category?
  - B. What are the final rule amendments based on the technology review for the Aerospace Manufacturing and Rework Facilities source category?
  - C. What are the final rule amendments pursuant to CAA sections 112(d)(2) and (3) for the Aerospace Manufacturing and Rework Facilities source category?
  - D. What are the requirements during periods of startup, shutdown, and malfunction?
  - E. What other changes have been made to the NESHAP?
  - F. What are the effective and compliance dates of the standards?

- G. What are the requirements for submission of performance test data to the EPA?
- IV. What is the rationale for our final decisions and amendments for the Aerospace Manufacturing and Rework Facilities source category?
  - A. Residual Risk Review for the Aerospace Manufacturing and Rework Facilities Source Category
  - B. Technology Review for the Aerospace Manufacturing and Rework Facilities Source Category
  - C. Legal Basis to Regulate Specialty Coatings
  - D. Determination of Specialty Coating Limits and Definitions
  - E. Specialty Coating Application Equipment Requirements
  - F. Specialty Coating Inorganic HAP Control Requirements
  - G. Complying With the Specialty Coating Limits
  - H. Electronic Reporting Requirements
  - I. Startup, Shutdown, and Malfunction Provisions
  - J. Effective Date and Compliance Dates for the Amendments
  - K. Standards for Cleaning Operations and Standards for Handling and Storage of Waste
  - L. Technical Corrections to the Aerospace NESHAP
- V. Summary of Cost, Environmental and Economic Impacts
  - A. What are the affected sources?
  - B. What are the air quality impacts?
  - C. What are the cost impacts?
  - D. What are the economic impacts?
  - E. What are the benefits?

- F. What analysis of environmental justice did we conduct?
- G. What analysis of children's environmental health did we conduct?
- VI. Statutory and Executive Order Reviews
  - A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
  - B. Paperwork Reduction Act (PRA)
  - C. Regulatory Flexibility Act (RFA)
  - D. Unfunded Mandates Reform Act (UMRA)
  - E. Executive Order 13132: Federalism
  - F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
  - G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
  - H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use
  - I. National Technology Transfer and Advancement Act (NTTAA)
  - J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations
  - K. Congressional Review Act (CRA)

**I. General Information**

*A. Does this action apply to me?*

*Regulated entities.* Categories and entities potentially regulated by this action are shown in Table 1 of this preamble.

**TABLE 1—INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS ACTION**

Source category	NESHAP	NAICS Code <sup>a</sup>
Aerospace Manufacturing and Rework Facilities	Aerospace Manufacturing and Rework Facilities.	336411, 336412, 336413, 336414, 336415, 336419, 481111, 481112, 481211, 481212, 481219.

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

Table 1 of this preamble is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source categories listed. To determine whether your facility is affected, you should examine the applicability criteria in the appropriate NESHAP. If you have any questions regarding the applicability of any aspect of this NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

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

In addition to being available in the docket, an electronic copy of this action is available on the Internet through the EPA's Technology Transfer Network

(TTN) Web site, a forum for information and technology exchange in various areas of air pollution control. Following signature by the EPA Administrator, the EPA will post a copy of this final action at: <http://www.epa.gov/ttn/atw/aerosp/aerogp.html>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the final rule and key technical documents at this same Web site.

Additional information is available on the RTR Web site at <http://www.epa.gov/ttn/atw/rrisk/rtrpg.html>. This information includes an overview of the RTR program, links to project Web sites for the RTR source categories and detailed emissions and other data we used as inputs to the risk assessments.

*C. Judicial Review and Administrative Reconsideration*

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by February 5, 2016. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. This section also

provides a mechanism for the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, EPA WJC North Building, 1200 Pennsylvania Ave. NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

## II. Background

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

Section 112 of the CAA establishes a two-stage regulatory process to address emissions of HAP from stationary sources. In the first stage, we must identify categories of sources emitting one or more of the HAP listed in CAA section 112(b) and then promulgate technology-based NESHAP for those sources. "Major sources" are those that emit, or have the potential to emit, any single HAP at a rate of 10 tons per year (tpy) or more, or 25 tpy or more of any combination of HAP. For major sources, these standards are commonly referred to as maximum achievable control technology (MACT) standards and must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). In developing MACT standards, CAA section 112(d)(2) directs the EPA to consider the application of measures, processes, methods, systems or techniques, including but not limited to those that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials, or other modifications; enclose systems or processes to eliminate emissions; collect, capture, or treat HAP when released from a process, stack, storage, or fugitive emissions point; are design, equipment, work practice, or operational standards; or any combination of the above.

For these MACT standards, the statute specifies certain minimum stringency requirements, which are referred to as MACT floor requirements, and which may not be based on cost considerations. See CAA section 112(d)(3). For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than the MACT floor for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). In developing MACT standards, we must also consider control options that are more stringent than the floor, under CAA section 112(d)(2). We may establish standards more stringent than the floor, based on the consideration of the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

In the second stage of the regulatory process, the CAA requires the EPA to undertake two different analyses, which we refer to as the technology review and the residual risk review. Under the technology review, we must review the technology-based standards and revise them "as necessary (taking into account developments in practices, processes, and control technologies)" no less frequently than every 8 years, pursuant to CAA section 112(d)(6). Under the residual risk review, we must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The residual risk review is required within 8 years after promulgation of the technology-based standards, pursuant to CAA section 112(f). In conducting the residual risk review, if the EPA determines that the current standards provide an ample margin of safety to protect public health, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).<sup>1</sup> For more

<sup>1</sup> The U.S. Court of Appeals for the District of Columbia Circuit has affirmed this approach of implementing CAA section 112(f)(2)(A). *NRDC v. EPA*, 529 F.3d 1077, 1083 (D.C. Cir. 2008) ("If EPA determines that the existing technology-based standards provide an 'ample margin of safety,' then the Agency is free to readopt those standards during the residual risk rulemaking.")

information on the statutory authority for this rule, see 80 FR 8394 (February 17, 2014).

### B. What is this source category and how does the current NESHAP regulate its HAP emissions?

#### 1. Description of the Aerospace Manufacturing and Rework Facilities Source Category and Applicability

The NESHAP for the Aerospace Manufacturing and Rework Facilities source category (surface coating) (henceforth referred to as the "Aerospace NESHAP") was promulgated on September 1, 1995 (60 FR 45956), and codified at 40 CFR part 63, subpart GG. As promulgated in 1995, the Aerospace NESHAP applies to the surface coating and related operations (*i.e.*, cleaning and depainting 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 manufacture or rework of commercial, civil, or military aerospace vehicles or components. The requirements of the standards are nearly the same for both new and existing sources. The Aerospace NESHAP (40 CFR 63.742) defines "aerospace vehicle or component" as "any fabricated part, processed part, assembly of parts or completed unit, with the exception of electronic components, of any aircraft, including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles." Today, we estimate that 144 facilities are subject to the Aerospace NESHAP. A complete list of facilities subject to the Aerospace NESHAP is available in the Aerospace RTR database, which is available for review in the docket for this rulemaking. Section 63.741(c) defines each affected source in the Aerospace Manufacturing and Rework Facilities source category, and a facility could have a combination of both new and existing affected sources. However, the emission standards for new and existing affected sources are the same for nearly all operations covered by subpart GG. The exceptions are the filter efficiency requirements to control inorganic HAP emissions from primer and topcoat spray application operations in 40 CFR 63.745(g) and from dry media blasting operations in 40 CFR 63.746(b)(4), and the requirements for controls to reduce organic HAP emissions from chemical depainting operations in 40 CFR 63.746(c).

The Aerospace NESHAP applies to organic HAP emissions from cleaning operations, depainting operations, primer application operations, topcoat

application operations, chemical milling maskant application operations, and the handling and storage of waste. The rule also applies to inorganic HAP emissions from primer and topcoat application operations using spray equipment and depainting operations using dry media blasting. The rule provides an exemption for primers, topcoats, and chemical milling maskants used in low volumes, which is defined as 189 liters (50 gallons) or less per formulation, and for which the combined annual total does not exceed 757 liters (200 gallons).

Prior to the amendments being finalized here, the Aerospace NESHAP did not contain control requirements for specialty coating operations, as specified in 40 CFR 63.741(f) and in 40 CFR 63.742 (*i.e.*, the definitions for “exterior primer,” “primer,” and “topcoat” exclude specialty coatings). Appendix A of the Aerospace NESHAP defines 56 separate categories of specialty coatings.

Although the EPA did not include emission limitations for specialty coatings in the Aerospace NESHAP finalized in 1995 or in any subsequent amendments prior to the amendments being finalized here, the EPA included volatile organic compounds (VOC) content limits for the specialty coating categories in the 1997 Aerospace Control Techniques Guidelines (CTG) document.<sup>2</sup> The CAA requires that state implementation plans (SIPs) for certain ozone nonattainment areas be revised to require the implementation of reasonably available control technology (RACT) to control VOC emissions. The EPA has defined RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. The Aerospace CTG is intended to provide state and local air pollution control authorities with an information base; recommended emissions limitations; and monitoring, recordkeeping, and reporting requirements for proceeding with their analyses of RACT for their own regulations to reduce VOC emissions from aerospace surface coating operations.

<sup>2</sup> Guideline Series: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations. Emission Standards Division, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711, December 1997. Publication No. EPA-453/R-97-004.

## 2. Organic and Inorganic HAP Emission Sources

Organic HAP emissions from cleaning and depainting operations occur from the evaporation of the volatile portion of the cleaning solvents or chemical strippers. Emissions from cleaning operations are typically fugitive in nature and occur at most processing steps. Emissions from depainting operations that occur within a booth or hangar are typically captured and exhausted through a stack, although some emissions may be fugitive in nature (*e.g.*, open tanks).

Organic HAP emissions from coating (primers, topcoats, specialty coatings, and chemical milling maskants) application operations occur from the evaporation of the solvent contained in the coatings. These emissions occur during the application of the coatings on aerospace vehicles or parts, which may take place in large open areas, such as hangars, or in partially or fully enclosed spaces, such as within spray booths.

Organic HAP emissions from cleaning solvents and waste occur from evaporation of the volatile portion of the cleaning solvent or waste while it is being handled or stored. These emissions are fugitive in nature, occurring from each solvent and waste container.

Some coatings contain compounds that are inorganic HAP. Inorganic HAP emissions from coatings occur during the application of the coating if it is applied using spray guns. These inorganic HAP emissions are particles of the spray-applied coating, commonly referred to as “overspray,” that do not adhere to the surface being coated. Like the organic HAP emissions from the operations, the emissions of the inorganic HAP may occur in large open areas, such as hangars, or in partially or fully enclosed spaces, such as within spray booths. However, coatings that contain inorganic HAP are typically applied in spray booths equipped with exhaust filters to capture coating overspray. Inorganic HAP are not emitted from coatings applied with non-spray methods, such as brushes, rollers, or dip coating, because the coating is not atomized with these methods.

Inorganic HAP emissions from depainting operations may occur from non-chemical methods, such as plastic and other types of dry media blasting, used to strip an aerospace vehicle. (Chemical stripping techniques do not release inorganic HAP.) These emissions occur as particulates that are generated during the blasting process. The operation is typically carried out within a large hangar equipped with a

ventilation system and particulate filtration device (*e.g.*, a baghouse) or in smaller enclosures, also equipped with filtration. The inorganic HAP that are released from the depainting operations are primarily found in the coating being stripped, although some stripping media may contain trace amounts of inorganic HAP.

## 3. Regulation of Organic and Inorganic HAP Emissions in the Aerospace NESHAP

The Aerospace NESHAP, prior to the amendments being finalized here, specified numerical emission limits for organic HAP emissions from primer, topcoat, chemical milling maskant application operations and chemical depainting operations; equipment and filter efficiency requirements for dry media blasting depainting operations and spray-applied coating operations; composition requirements and equipment standards for cleaning operations; and work practice standards for waste handling and storage operations.

The organic HAP emission rates for primers, topcoats, and chemical milling maskants are in the format of grams of HAP per liter of coating (g/L), or pounds/gallon (lb/gal), less water. Alternative limits are also provided for VOC in the format of g/L (or lb/gal), less water and exempt (non-VOC) solvents. Alternatively, a control system (*e.g.*, a thermal or catalytic oxidizer or carbon adsorption system) can be used to capture and control emissions from the primer, topcoat, or chemical milling maskant application operation. The system must achieve an overall capture and control efficiency of 81 percent. Further, the Aerospace NESHAP specifies which types of coating application techniques may be used.

The Aerospace NESHAP also provides operating requirements for the application of primers or topcoats that contain inorganic HAP, including control of spray booth exhaust streams with either particulate filters or waterwash systems (40 CFR 63.745(g)).

The amendments being finalized here require controlling organic and inorganic HAP emissions from specialty coating operations. They establish organic HAP and VOC content limits for 57 specialty coating categories, and also require specialty coating operations to meet the same inorganic HAP control requirements as for primers and topcoats. (The Aerospace CTG and appendix A to the Aerospace NESHAP define 56 categories of specialty coatings. The number of limits and the number of categories defined are different because some defined

categories are exempt, while others are split into subcategories subject to different HAP and VOC content limits.)

For cleaning operations (including hand-wipe cleaning), the Aerospace NESHAP specifies that cleaning solvents meet certain composition requirements or that the cleaning solvents have a composite vapor pressure of no more than 45 millimeters mercury (mm Hg) (24.1 inches of water) (40 CFR 63.744(b)). Work practice measures are also required (40 CFR 63.744(a)). Four work practice alternative techniques are specified for spray gun cleaning, and work practice standards are specified for flush cleaning operations (40 CFR 63.744(c) and (d)).

The Aerospace NESHAP also specifies requirements for depainting operations. Where there are no controls for organic HAP emissions from chemical depainting operations, the rule prohibits organic HAP emissions from chemical depainting operations, with the exception that 26 gallons of HAP-containing chemical stripper (or, alternatively, 190 pounds of organic HAP) may be used for each commercial aircraft stripped, or 50 gallons (or 365 pounds of organic HAP) for each military aircraft for spot stripping and decal removal (40 CFR 63.746(b)(1) through (3)). Where there are controls for organic HAP emissions from chemical depainting, emissions must be reduced (*i.e.*, captured and controlled) by 81 percent for controls installed before the effective date (*i.e.*, September 1, 1995) and by 95 percent for controls installed on or after the effective date (40 CFR 63.746(c)). For non-chemical depainting operations that generate inorganic HAP emissions from dry media blasting, the operation must be performed in an enclosed area or in a closed cycle depainting system, and the air stream from the operation must pass through a dry filter system meeting a minimum efficiency specified in the rule, through a baghouse or through a waterwash system before being released to the atmosphere (40 CFR 63.746(b)(4)).

The handling and storage of waste that contains HAP must be conducted in a manner that minimizes spills (40 CFR 63.748).

*C. What changes did we propose for the Aerospace Manufacturing and Rework Facilities source category in our February 17, 2015, RTR proposal?*

On February 17, 2015 (80 FR 8392), the EPA proposed amendments to the Aerospace Manufacturing and Rework Facilities NESHAP that included the following:

- Requirements to limit organic and inorganic HAP emissions from specialty coating application operations;
- The addition of reporting requirements for reporting of performance testing through the EPA's Central Data Exchange (CDX);
- Revisions related to the application of emission standards during SSM periods;
- Amendments to simplify recordkeeping and reporting for facilities using compliant coatings; and
- Several minor technical amendments.

**III. What is included in this final rule?**

This action finalizes the EPA's determinations pursuant to the RTR provisions of CAA section 112 for the Aerospace Manufacturing and Rework Facilities source category. This action also finalizes other changes to the NESHAP including the following:

- Requirements to limit organic and inorganic HAP emissions from specialty coating application operations;
- The addition of reporting requirements for reporting of performance testing through the EPA's CDX;
- Revisions related to the application of emission standards during SSM periods;
- Amendments to simplify recordkeeping and reporting for facilities using compliant coatings; and
- Several minor technical amendments and clarifications of the applicability of the NESHAP and definitions.

*A. What are the final rule amendments based on the risk review for the Aerospace Manufacturing and Rework Facilities source category?*

This section introduces the final amendments to the Aerospace Manufacturing and Rework Facilities NESHAP being promulgated pursuant to CAA section 112(f). The EPA proposed no changes to the Aerospace NESHAP based on the risk review conducted pursuant to CAA section 112(f). Specifically, as we proposed, we are finalizing our determination that risks from the Aerospace Manufacturing and Rework Facilities source category are acceptable, considering all of the health information and factors evaluated and also considering risk estimation uncertainty, the ample margin of safety, and the absence of adverse environmental effects. The EPA received no new data or other information during the public comment period that affected that determination. Therefore, we are not requiring additional controls and are thus readopting the existing standards under CAA section 112(f)(2).

*B. What are the final rule amendments based on the technology review for the Aerospace Manufacturing and Rework Facilities source category?*

We determined that there are no developments in practices, processes, and control technologies that warrant revisions to the MACT standards for this source category. The EPA proposed no changes to the Aerospace NESHAP based on the technology review conducted pursuant to CAA section 112(d)(6). As explained in section IV.B of this preamble, in response to public comments the EPA conducted a technology review for waste storage and handling operations since proposal. However, the technology review identified no developments in practices, processes, and control technologies that warrant revisions to the MACT standards for waste storage and handling operations. The EPA received no new data or other information during the public comment period that affected the technology review determinations for primer and topcoat application operations; chemical milling maskant application operations; cleaning operations; and chemical and dry media blasting depainting operations. Therefore, we are not finalizing revisions to the MACT standards under CAA section 112(d)(6).

*C. What are the final rule amendments pursuant to CAA sections 112(d)(2) and (3) for the Aerospace Manufacturing and Rework Facilities source category?*

We are finalizing amendments to the Aerospace NESHAP under CAA section 112(d)(2) and (3) to add emission standards for specialty coating application operations at facilities in the source category, which previously were not subject to control requirements under 40 CFR 63.745. Emission standards for specialty coating operations were included in the proposed amendments published on February 17, 2015. We are finalizing, as proposed, the organic HAP content and alternative VOC content limits for specialty coatings, with the exception of minor changes to the coating category definitions. We are finalizing the proposed requirements for specialty coating application equipment requirements, with the exception of minor changes to clarify the types of equipment and methods that are permitted for certain types of coating materials. We are also finalizing, as proposed, the requirements for controlling inorganic HAP emissions from specialty coating operations, with the exception of minor changes to make these requirements consistent with

those for similar operations in other surface coating NESHAP. We are making other changes in response to comments we received on our proposal.

*D. What are the requirements during periods of startup, shutdown, and malfunction?*

We are finalizing, as proposed, changes to the Aerospace NESHAP to eliminate the SSM exemption. Consistent with *Sierra Club v. EPA* 551 F. 3d 1019 (D.C. Cir. 2008), the EPA has established standards in this rule that apply at all times. Table 1 to Subpart GG of Part 63 (General Provisions applicability table) is being revised to change several references related to requirements that apply during periods of SSM. We eliminated or revised certain recordkeeping and reporting requirements related to the eliminated SSM exemption. The EPA also made changes to the rule to remove or modify inappropriate, unnecessary, or redundant language in the absence of the SSM exemption. We determined that facilities in this source category can meet the applicable emission standards in the Aerospace NESHAP at all times, including periods of startup and shutdown; therefore, the EPA determined that no additional standards are needed to address emissions during these periods.

*E. What other changes have been made to the NESHAP?*

This rule also finalizes, as proposed, revisions to several other Aerospace NESHAP requirements. We describe the revisions in the following paragraphs.

To increase the ease and efficiency of data submittal and data accessibility, we are finalizing, as proposed, a requirement that owners and operators of aerospace manufacturing and rework facilities submit electronic copies of certain required performance test reports through the EPA's CDX Web site using an electronic performance test report tool called the Electronic Reporting Tool (ERT). This requirement to submit performance test data electronically to the EPA does not require any additional performance testing and applies only to those performance tests conducted using test methods that are supported by the ERT.

We are finalizing the proposed amendments to include an alternative compliance demonstration that will allow facilities to use coating manufacturers' supplied data to demonstrate compliance with the HAP and VOC content limits for all coating types (primers, topcoats, specialty coatings, and chemical milling maskants). In response to comments, we

are also finalizing a change that would allow any facility that is not using the averaging provisions in 40 CFR 63.743(d) to keep only annual records of consumption of each coating instead of having to keep monthly records. The EPA originally proposed that facilities using the alternative compliance demonstration could keep annual records instead of monthly records; facilities that were using test methods to determine HAP or VOC content of coatings would still need to keep monthly records.

In response to comments, we are also finalizing a provision that would add EPA Method 311, Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings, as the reference method for determining the HAP content of primers, topcoats, and specialty coatings. This change was made as a result of comments received on the proposed alternative compliance demonstration and on the addition of HAP and VOC content limits for specialty coatings.

Also in response to comments, we are finalizing a change that would allow facilities that use spray booths to control inorganic HAP emissions to use an interlock system between the surface coating equipment and the monitoring system for the booth's filtration system. The interlock system will automatically shut down the surface coating equipment if the monitored parameters for the filtration system deviate from the allowed operating range.

In response to comments, the EPA is clarifying the applicability of the requirements for the handling and storage of spent cleaning solvents and HAP-containing wastes in 40 CFR 63.744(a) and 63.748 relative to subpart GG and the regulations in 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC) that implement the Resource Conservation and Recovery Act (RCRA). These changes include removing and reserving 40 CFR 63.741(e), and revising 40 CFR 63.744(a) and 63.748 to specify requirements for spent cleaning solvents and solvent-laden applicators, and for organic HAP-containing waste that are not handled and stored in compliance with the regulations that implement RCRA.

In addition, we are finalizing, as proposed, several miscellaneous minor changes to improve the clarity of the rule requirements.

We are also finalizing minor changes to the NESHAP in consideration of comments received during the public comment period for the proposed

rulemaking, as described in section IV.K of this preamble.

*F. What are the effective and compliance dates of the standards?*

The revisions to the MACT standards being promulgated in this action are effective on December 7, 2015.

The compliance date for the revised SSM requirements and the electronic reporting requirements for existing aerospace manufacturing and rework facilities is the effective date of the standards, December 7, 2015.

The compliance date for existing specialty coating application operations with the requirements to control organic HAP and inorganic HAP emissions from specialty coating application operations in 40 CFR 63.745 is December 7, 2018. The 3-year compliance date is based on the time needed for facilities to identify new coatings that comply with the HAP and VOC content limits and, in some cases, to receive approval to use them in certain aircraft, to upgrade coating application equipment, and to develop recordkeeping and reporting systems to demonstrate compliance. As discussed in section IV.J.3 of this preamble, this was revised from the proposed 1-year compliance period based on public comments.

New sources must comply with all of the standards immediately upon the effective date of the standard, December 7, 2015, or upon startup, whichever is later.

*G. What are the requirements for submission of performance test data to the EPA?*

The EPA is requiring owners and operators of aerospace manufacturing and rework facilities to submit electronic copies of certain required performance test reports through the EPA's CDX using the CEDRI. As stated in the proposal preamble (80 FR 8422, February 17, 2015), the EPA believes that the electronic submittal of the reports addressed in this rulemaking will increase the usefulness of the data contained in those reports, is 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 the regulated community. Electronic reporting can also eliminate paper-based, manual processes, thereby saving time and resources, simplifying data entry, eliminating redundancies, minimizing data reporting errors and providing data quickly and accurately to the affected facilities, air agencies, the EPA, and the public.

As mentioned in the preamble of the proposal (80 FR 8422, February 17,

2015), the EPA Web site that stores the submitted electronic data, WebFIRE, will be easily accessible to everyone and will provide a user-friendly interface that any stakeholder can access. By making the records, data, and reports addressed in this rulemaking readily available, the EPA, the regulated community, and the public will benefit when the EPA conducts its CAA-required technology and risk-based reviews. As a result of having reports readily accessible, our ability to carry out comprehensive reviews will be increased and achieved within a shorter period of time and with less burden on the regulated community to gather and provide data.

We anticipate that fewer or less substantial information collection requests (ICRs) in conjunction with prospective CAA-required technology and risk-based reviews may be needed. We expect this to result in a decrease in time spent by industry to respond to data collection requests. We also expect the ICRs to contain less extensive stack testing provisions, as we will already have stack test data electronically. Reduced testing requirements would be a cost savings to industry. The EPA should also be able to conduct these required reviews more quickly. While the regulated community may benefit from a reduced burden of ICRs, the general public benefits from the agency's ability to provide these required reviews more quickly, resulting in increased public health and environmental protection.

Air agencies will benefit from more streamlined and automated review of the electronically submitted data. Having reports and associated data in electronic format will facilitate review through the use of software "search" options, as well as the downloading and analyzing of data in spreadsheet format. The ability to access and review air emission report information

electronically will assist air agencies to more quickly and accurately determine compliance with the applicable regulations, potentially allowing a faster response to violations, which could minimize harmful air emissions. This benefits both air agencies and the general public.

For a more thorough discussion of electronic reporting required by this rule, see the discussion in the preamble of the proposal (80 FR 8422, February 17, 2015). In summary, in addition to supporting regulation development, control strategy development, and other air pollution control activities, 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, air quality regulations, and enhancing the public's access to this important information.

**IV. What is the rationale for our final decisions and amendments for the Aerospace Manufacturing and Rework Facilities source category?**

For each issue, this section provides a description of what we proposed and what we are finalizing for the issue, the EPA's rationale for the final decisions and amendments, and a summary of key comments and responses. For all comments not discussed in this preamble, comment summaries and the EPA's responses can be found in the comment summary and response document available in the docket.

*A. Residual Risk Review for the Aerospace Manufacturing and Rework Facilities Source Category*

1. What did we propose pursuant to CAA section 112(f) for the Aerospace Manufacturing and Rework Facilities source category?

Pursuant to CAA section 112(f), we conducted a residual risk review and

presented the results of this review, along with our proposed decisions regarding risk acceptability and ample margin of safety, in the February 17, 2015, proposed rule for the Aerospace NESHAP (80 FR 8392). The results of the risk assessment are presented briefly in Table 2 of this preamble, and in more detail in the residual risk document, *Residual Risk Assessment for the Aerospace Manufacturing and Rework Facilities Source Category in Support of the November 2015 Risk and Technology Review Final Rule*, which is available in the docket for this rulemaking. Based on both actual and allowable emissions for the Aerospace Manufacturing and Rework Facilities source category, the maximum individual risk (MIR) was estimated to be 10-in-1 million, with emissions of strontium chromate from coating operations accounting for the majority of the risk. The total estimated national cancer incidence from this source category, based on both actual and allowable emission levels, was 0.02 excess cancer cases per year, or one case in every 50 years, with emissions of strontium chromate and chromium compounds contributing 66 percent and 15 percent, respectively, to the cancer incidence. The maximum chronic non-cancer target organ specific hazard index (TOSHI) value for the source category based on both actual and allowable emissions was estimated to be 0.5, driven by cadmium compounds emissions from blast depainting. Both chronic cancer MIR and non-cancer hazard index (HI) are determined at the census block with highest estimated risk. While this is generally at off-site locations, in the case of military operations, the census block could be located within the facility boundary (*i.e.*, on the military base).

TABLE 2—AEROSPACE MANUFACTURING AND REWORK FACILITIES INHALATION RISK ASSESSMENT RESULTS

Maximum individual cancer risk (-in-1 million) <sup>a</sup>	Estimated population at increased risk levels of cancer	Estimated annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>b</sup>	Maximum screening acute non-cancer HQ <sup>c</sup>
Actual Emissions				
10 .....	≥ 1-in-1 million: 180,000 ..... ≥ 10-in-1 million: 1,500. ≥ 100-in-1 million: 0.	0.02	0.5	HQ <sub>REL</sub> = 2 (ethylene glycol ethyl ether acetate).
Allowable Emissions <sup>d</sup>				
10 .....	≥ 1-in-1 million: 180,000 ..... ≥ 10-in-1 million: 2,000.	0.02	0.5	



TABLE 2—AEROSPACE MANUFACTURING AND REWORK FACILITIES INHALATION RISK ASSESSMENT RESULTS—Continued

Maximum individual cancer risk (-in-1 million) <sup>a</sup>	Estimated population at increased risk levels of cancer	Estimated annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>b</sup>	Maximum screening acute non-cancer HQ <sup>c</sup>
	≥ 100-in-1 million: 0.			

<sup>a</sup> Estimated maximum individual excess lifetime cancer risk due to HAP emissions from the source category.

<sup>b</sup> Maximum TOSHI. The target organ with the highest TOSHI for the Aerospace Manufacturing and Rework Facilities source category for both actual and allowable emissions is the kidney system.

<sup>c</sup> See section III.A.3 of the preamble to the proposed rule (80 FR 8392) for an explanation of acute dose-response values. Acute assessments are not performed on allowable emissions.

<sup>d</sup> The development of allowable emission estimates can be found in the memorandum titled, *Aerospace Manufacturing and Rework Facilities RTR Modeling File Preparation*, December 2014, which is available in the docket. The allowable emissions multiplier of 1.02 was based on the ratio between the 20-year historical maximum production utilization rate and the 2008 production utilization rate. Because the allowable emissions were estimated to be only 2 percent higher than the actual emissions, the risk assessment results were the same.

Our screening analysis for worst-case acute impacts based on actual emissions indicated the potential for one HAP, ethylene glycol ethyl ether acetate, from one facility, to have hazard quotient (HQ) values above 1, based on its reference exposure level (REL) value. The EPA evaluated screening estimates of acute exposures and risks for each of the HAP at the point of highest potential off-site exposure for each facility. In the case of military operations, acute impacts could be evaluated within the official fence line of the installation because of the mix of residential, military, industrial, and commercial activities on most military bases. However, the acute impacts would still be evaluated outside the perimeter of the actual aerospace manufacturing and rework facility. Of the 144 aerospace manufacturing and rework facilities, 143 had an estimated worst-case HQ less than or equal to 1 for all HAP.

In the multipathway risk screening analysis, the results of the worst-case Tier I screening analysis indicated that emissions of neither cadmium compounds nor mercury compounds, which are persistent and bioaccumulative HAP (PB-HAP), exceeded the screening emission rates. Neither dioxins nor polycyclic aromatic hydrocarbons (PAH), which are also PB-HAP, are emitted by any source in the source category.

In the environmental risk screening analysis, the Tier 1 screening analysis for PB-HAP (other than lead compounds, which were evaluated differently) indicated that the individual modeled Tier 1 concentrations for mercury and cadmium did not exceed any ecological benchmark for any facility in the source category. For lead compounds, we did not estimate any exceedances of the secondary ambient air quality standards (NAAQS) for lead, indicating adequate protection against damage to animals, crops, and vegetation. For Hydrogen Fluoride (HF)

and Hydrochloric acid (HCl), the average modeled concentration around each facility (*i.e.*, the average concentration of all off-site data points in the modeling domain) did not exceed the ecological benchmarks. In addition, each individual modeled concentration of HCl and HF (*i.e.*, each off-site data point in the modeling domain) was below the ecological benchmarks for all facilities.

The facility-wide chronic MIR and TOSHI were estimated based on emissions from all sources at the identified facilities (both MACT and non MACT sources). The results of the facility-wide assessment for cancer risks indicated that 44 facilities with aerospace manufacturing and rework processes had a facility-wide cancer MIR greater than or equal to 1-in-1 million. The maximum facility-wide cancer MIR was 20-in-1 million, primarily driven by arsenic and chromium (VI) compounds, from internal combustion engines. The maximum facility-wide TOSHI for the source category was estimated to be 0.5, primarily driven by emissions of hexamethylene-1,6-diisocyanate from specialty coatings operations.

We weighed all health risk factors in our risk acceptability determination, and we proposed that the residual risks from the Aerospace Manufacturing and Rework Facilities source category are acceptable.

We then considered whether the Aerospace NESHAP provides an ample margin of safety to protect public health and whether more stringent standards are necessary to prevent, taking into consideration costs, energy, safety and other relevant factors, an adverse environmental effect. In considering whether the standards should be tightened to provide an ample margin of safety to protect public health, we considered the same risk factors that we considered for our acceptability determination and also considered the

costs, technological feasibility and other relevant factors related to emissions control options that might reduce risk associated with emissions from the source category. As noted in the discussion of the technology review in the preamble to the proposed rule (80 FR 8416–8419), no measures (beyond those already in place or that were proposed under CAA sections 112(d)(2) and (d)(3)) were identified for reducing HAP emissions from the Aerospace Manufacturing and Rework Facilities source category. Therefore, we proposed that the current standards provide an ample margin of safety to protect public health.

Further, we proposed that more stringent standards would not be necessary to prevent an adverse environmental effect, and this determination has not changed.

2. How did the risk review change for the Aerospace Manufacturing and Rework Facilities source category?

During the public comment period, the EPA received only two corrections affecting two emission sources at one facility in the risk modelling database, and both corrections reduced the emissions from that one facility. Because the residual risk analysis performed for the proposed rule had already found that the risks were acceptable with an ample margin of safety, the EPA did not repeat the risk analysis using these revised data.

3. What key comments did we receive on the risk review, and what are our responses?

The comments received on the proposed risk review were generally supportive of our determination of risk acceptability and ample margin of safety analysis. A summary of these comments and our responses can be found in the comment summary and response document available in the docket for this action (EPA-HQ-OAR-2014-0830).

4. What is the rationale for our final approach and final decisions for the risk review?

For the reasons explained in the preamble to the proposed rule, we have determined that the risks from the Aerospace Manufacturing and Rework Facilities source category are acceptable and provide an ample margin of safety to protect public health. In addition, for the reasons explained in the preamble to the proposed rule, we have determined that more stringent standards are not necessary to prevent an adverse environmental effect. Since proposal, neither the risk assessment nor our determinations regarding risk acceptability, ample margin of safety or adverse environmental effects have changed. Therefore, we are not revising the Aerospace NESHAP to require additional controls pursuant to CAA section 112(f)(2) based on the residual risk review, and are thus readopting the existing standards under CAA section 112(f)(2).

*B. Technology Review for the Aerospace Manufacturing and Rework Facilities Source Category*

1. What did we propose pursuant to CAA section 112(d)(6) for the Aerospace Manufacturing and Rework Facilities source category?

The EPA performed a technology review for the Aerospace Manufacturing and Rework Facilities source category and summarized the results of that review in the preamble to the proposed rule (80 FR 8416–8419). The technology review covered the following emission source types in this source category: Primer and topcoat application operations; chemical milling maskant application operations; cleaning operations; and chemical and dry media blasting depainting operations. For each of these emission source types, the EPA's technology review found that there were no new developments in practices, processes and control technologies. As a result, the EPA did not propose to revise the Aerospace NESHAP standard requirements for any of these emission source types pursuant to CAA section 112(d)(6).

For waste storage and handling operations, the EPA determined that the practical effect of the provisions in 40 CFR 63.741(e) is that all HAP-containing wastes generated in aerospace manufacturing and rework operations are subject to RCRA regulations and are not subject to the requirements of 40 CFR 63.748. The EPA proposed that, because all of these HAP-containing wastes are subject to regulation under RCRA and not subject to 40 CFR 63.748,

there would be no need to conduct a technology review of the standards for handling and storage of waste.

2. How did the technology review change for the Aerospace Manufacturing and Rework Facilities source category?

As proposed, the EPA is making no changes to the Aerospace NESHAP standard requirements in the final rule pursuant to CAA section 112(d)(6).

3. What key comments did we receive on the technology review, and what are our responses?

We received comments in support of and against the proposed technology review and our determination that no revisions were warranted under CAA section 112(d)(6). A summary of these comments and our responses can be found in the comment summary and response document available in the docket for this action (EPA–HQ–OAR–2014–0830).

The EPA received one comment that disagreed with the determination that no technology review was needed for the standards for the storage and handling of waste in 40 CFR 63.748. The commenter argued that the EPA may not exempt a major source from CAA section 112 standards and may not evade the need to perform a CAA section 112(d)(6) review by referring to a different statute (*i.e.*, RCRA). In response to this comment, the EPA has completed a technology review for the standards for the storage and handling of waste, which is documented in the memorandum, *Technology Review for Waste Storage and Handling Operations in the Aerospace Source Category*, October 2015, available in the docket for this action. As discussed in the memorandum, we did not identify any developments in practices, processes, or control technologies for the storage and handling of waste. However, as explained in section IV.K of this preamble, in response to public comments, the EPA has revised the standards in 40 CFR 63.748 in the final rule to clarify the applicability of these standards relative to those found in RCRA.

The EPA received a second comment that the EPA's technology review did not address whether the current standards were adequate to control polycyclic organic matter (POM) emissions from the aerospace manufacturing and rework source category. The EPA disagrees with this comment. The only POM compound the EPA identified from Aerospace manufacturing and rework surface coating operations is naphthalene. The EPA conducted a technology review for

the control of all organic HAP emissions, including naphthalene, from cleaning operations, primer and topcoat operations, chemical depainting operations, and chemical milling maskant operations. These technology reviews were included in the docket for the proposed rulemaking. The EPA also compared the 1990 naphthalene baseline emission inventory for the aerospace industry (79 FR 74661, December 16, 2014)<sup>3</sup> to the more recent naphthalene emissions from the risk modeling data file. In this comparative analysis between the 1990 baseline inventory and the risk modeling file, we found that emissions of naphthalene from the aerospace manufacturing and rework source category have been reduced by 99.96 percent since the updated 1990 baseline inventory. The results show that the MACT standards for aerospace coating operation, including the limits for total organic HAP, have resulted in naphthalene reductions of a magnitude that is typically associated only with the use of add-on controls. This result also demonstrates that the current approach of regulating total organic HAP and providing the option of using add-on controls is adequate to address naphthalene emissions under the technology review. In addition, the current risk modeling data file shows no POM emissions other than naphthalene from aerospace surface coating operations. Because these operations are not sources of other types of POM, there was no need to consider emissions of the other types of POM in these technology reviews. The full response to this comment can be found in the comment summary and response document available in the docket for this action.

4. What is the rationale for our final approach for the technology review?

For the reasons explained in the preamble to the proposed rule and in section IV.B.3 of this preamble, we determined there were no new developments in practices, processes and control technologies. Since proposal, neither the technology review nor our determinations regarding new developments in practices, processes and control technologies have changed. Therefore, we are not revising the Aerospace NESHAP pursuant to CAA section 112(d)(6) as a result of our technology review.

<sup>3</sup> For purposes of CAA section 112(c)(6), EPA developed a 1990 baseline inventory for HAP identified in that section, including POM. This baseline inventory was recently updated. See 79 FR 74656 (December 16, 2014).

### C. Legal Basis To Regulate Specialty Coatings

#### 1. What did we propose?

In 2007, the United States Court of Appeals for the District of Columbia Circuit found that the EPA had erred in establishing emissions standards for sources of HAP in the NESHAP for Brick and Structural Clay Products Manufacturing and Clay Ceramics Manufacturing (67 FR 26690, May 16, 2003), and consequently vacated the rules.<sup>4</sup> Among other things, the Court found that the EPA erred by failing to regulate processes that emitted HAP, in some instances by establishing a MACT floor of “no control.” The EPA proposed to correct the same error in the Aerospace NESHAP by proposing to remove the exemption for the use of specialty coatings found at 40 CFR 63.741(f) and to add limits for specialty coating operations (including adhesives, adhesive bonding primers and sealants).

#### 2. What changed since proposal?

The EPA is finalizing, as proposed, the amendments that remove the exemption for specialty coating operations found at 40 CFR 63.741(f) and is adding limits for specialty coating operations, including organic HAP and VOC content limits, application equipment requirements, and requirements to limit inorganic HAP emissions.

#### 3. Comments and Responses

*Comment:* One commenter noted that the EPA’s risk modeling has shown that specialty coatings account for less than 2 percent of the risk from the facility with the highest modeled risk, and the maximum cancer risk from specialty coatings is less than 1-in-1 million at over 90 percent of facilities and less than 10-in-1 million at all facilities. As a result, specialty coatings do not warrant regulation based on risk.

*Response:* The standards for specialty coatings were not proposed under the residual risk requirements in CAA 112(f)(2). The standards that were proposed to address organic and inorganic HAP emissions from specialty coating operations are for currently unregulated emission sources, and were proposed under the authority of CAA sections 112(d)(2) and (d)(3). Therefore, we disagree with the commenter’s statement that we should allow the residual risk analysis to determine whether we address unregulated emission sources. The EPA is adding these standards for specialty coatings

because they are a source of HAP emissions from the Aerospace Manufacturing and Rework Facilities source category and the EPA had not previously established MACT standards for these emissions points. These changes are necessary to ensure the emissions standards are consistent with the requirements of the CAA as interpreted by the Courts and are unrelated to the risk findings.

*Comment:* One commenter argued that the EPA is not compelled to regulate specialty coatings under CAA section 112(d)(2) and (3) by the “Brick MACT” decision. The commenter argued that the situation in the Aerospace NESHAP is different from the situation in the Brick MACT case. According to the commenter, the EPA erred in the Brick MACT case “by failing to regulate processes that emitted HAP, in some instances by establishing a MACT floor of ‘no control.’” The commenter argued that in the Aerospace NESHAP, in contrast, the EPA did not establish a MACT floor of “no control” but instead excluded specialty coatings from that MACT floor because the amount of organic HAP emissions generated by coating-related operations is “relatively small,” the coatings are highly specialized, and subcategorization for specialty coatings “can be significant,” “resulting in lower potential emission reductions.” The commenter argued that the exclusion for specialty coatings is lawful under the Brick MACT decision, and that if the EPA’s interpretation was taken to its logical conclusion, it would be unlawful for the Agency to exempt any subcategory or source from any MACT standard, and this is a result that is not mandated by the Brick MACT decision.

*Response:* The EPA disagrees with the commenter’s interpretation of the “Brick MACT” decision relative to the regulation of specialty coatings. As explained at proposal, in March 2007 the D.C. Circuit Court issued an opinion vacating and remanding the CAA section 112(d) standards for the Brick and Structural Clay Products Manufacturing source categories in *Sierra Club v. EPA*, 479 F.3d 875 (D.C. Cir. 2007) (Brick MACT). Some key holdings in the Brick MACT case were: (1) Floors for existing sources must reflect the average emission limitation achieved by the best-performing sources, not levels that are achievable by all sources (479 F.3d at 880–81); (2) the EPA cannot set “no-control floors.” (479 F.3d at 883). The court reiterated its prior holdings, including *National Lime Ass’n*, 233 F.3d 625, that the EPA must set floor standards for all HAP emitted by the major source, including

those HAP that are not controlled by at-the-stack control devices; and (3) that the EPA cannot ignore non-technology factors that reduce HAP emissions. “The EPA’s decision to base floors exclusively on technology even though non-technology factors affect emissions violates the Act.” *Id.* The Agency has authority to amend improper MACT determinations, including amendments to improperly promulgated floor determinations, under CAA sections 112(d)(2) and (3). *Medical Waste Institute v. EPA*, 645 F.3d 420, 425–27 (D.C. Cir. 2011) (resetting MACT floor, based on post-compliance data, permissible when originally-established floor was improperly established, and permissibility of the EPA’s action does not turn on whether the prior standard was remanded or vacated).

As explained at proposal, in the Aerospace NESHAP, the EPA made essentially the same error in failing to regulate sources of HAP within this source category (80 FR 8399). Specifically, in the Aerospace NESHAP, the EPA exempted specialty coatings from the standards established for other surface coating operations in the same source category, even though the EPA identified specialty coatings as a “coating related operation” and a source of HAP, as documented in the preamble to the proposed subpart GG. The issues cited by the EPA that complicated the regulation of specialty coatings, which were identified in the preamble to the proposed rule and noted by the commenter, do not remove the EPA’s obligation to regulate these coatings under CAA section 112(d)(2) and (3). Indeed, the EPA identified achievable standards for VOC emissions from the same coatings and incorporated them into the Aerospace CTG only a few years after the NESHAP was promulgated. As previously explained, in developing MACT standards, CAA section 112(d)(2) directs the EPA to consider the application of measures, processes, methods, systems or techniques, including but not limited to those that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials, or other modifications; enclose systems or processes to eliminate emissions; collect, capture, or treat HAP when released from a process, stack, storage, or fugitive emissions point; are design, equipment, work practice, or operational standards; or any combination of the above. The identified achievable standards for VOC emissions from the same coatings that were incorporated into the Aerospace CTG are processes, measures and

<sup>4</sup> *Sierra Club v. EPA*, 479 F. 3d 875 (D.C. Cir. March 13, 2007).

methods that the EPA is directed to consider under CAA section 112(d)(2).

*Portland Cement Ass'n v. EPA*, 665 F.3d 177, 189 (D.C. Cir. 2011) confirms that CAA section 112(d)(6) does not constrain EPA and it may reassess its standards more often, including revising existing floors if need be. As a general matter, an agency remains free to revise improperly promulgated or otherwise unsupported rules, even in the absence of a remand from a court. *United Gas Improvement Co. v. Callery Props. Inc.*, 382 U.S. 223, 229 (1996) (An agency, like a court, can undo what is wrongfully done by virtues of its order.”).

Moreover, in several recent rulemakings, we have chosen to fix underlying defects in existing MACT standards under CAA sections 112(d)(2) and (3), provisions that directly govern the initial promulgation of MACT standards (see National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries, October 28, 2009, 74 FR 55670; and National Emission Standards for Hazardous Air Pollutants: Group I Polymers and Resins; Marine Tank Vessel Loading Operations; Pharmaceuticals Production; and the Printing and Publishing Industry, April 21, 2011, 76 FR 22566). We believe that our approach is reasonable because using those provisions ensures that the process and considerations are those associated with initially establishing a MACT standard, and it is reasonable to make corrections using the process that would have been followed if we had not made an error at the time of the original promulgation.

We also disagree with the comment that the EPA is not mandated to regulate *de minimis* HAP. While the EPA’s *de minimis* authority exists to help avoid what might be perceived as excessive regulation of tiny amounts of pollutants, it is unavailable “where the regulatory function does provide benefits, in the sense of furthering the regulatory objectives, but the agency concludes that the acknowledged benefits are exceeded by the costs.” *Alabama Power v. EPA*, 636 F.2d 323, 360–61 &n.89 (D.C. Cir. 1979). Accordingly, a *de minimis* exemption to CAA sections 112(d)(2) and (3) is unavailable because it would frustrate a primary legislative goal by carving out HAP emissions from regulation. Moreover, the EPA’s rejection of the *de minimis* concept has been affirmed by the U.S. Court of Appeals for the D.C. Circuit in *National Lime Ass'n v. EPA*, 233 F.3d 625, 640 (D.C. Cir. 2000), where the Court rejected the petitioner’s claim that in light of both high costs and low

quantities of HAP at issue in that rule, the EPA should read a *de minimis* exemption into the requirement to regulate all HAP emitted by major sources. The Court found that the “EPA reasonably rejected this argument on the ground that the statute ‘does not provide for exception from emissions standards based on *de minimis* principles where a MACT floor exists.’” *National Lime Ass'n*, at 640. We also continue to believe that CAA section 112 is replete with careful definitions of volume or effect based limitations on regulation, indicating that Congress has already defined what amounts of HAP emissions are too small to warrant MACT standards. The requirement to adopt MACT emission limitations, for example, applies without exception to “category or subcategory of major sources . . . of [HAP].” CAA section 112(d)(1). For sources below the major sources threshold, however, the EPA has discretion to require “generally available control technologies or management practices.” CAA section 112(d)(5). Congress has thus defined volumetrically which sources’ emissions are small enough not to warrant mandatory MACT standards.

#### 4. Rationale for Final Approach

For the reasons explained in the preamble to the proposed rule and in our comment responses in section IV.C.3 of this preamble, we determined that the EPA should regulate specialty coating operations pursuant to CAA sections 112(d)(2) and (3). Since proposal, the EPA’s rationale and legal justification for that decision have not changed. Therefore, in the final rule, we are including standards to limit emissions of organic and inorganic HAP from specialty coating operations.

#### D. Determination of Specialty Coating Limits and Definitions

##### 1. What did we propose?

The EPA proposed to establish standards for specialty coatings at aerospace manufacturing and rework facilities with organic HAP content limits that are equivalent to the VOC content limits for specialty coatings included in the Aerospace CTG. The EPA proposed that the same application equipment requirements that apply to primer and topcoat application operations apply to specialty coatings. The EPA also proposed limits for emissions of inorganic HAP from spray-applied specialty coatings by revising the requirements to use spray booths with filters meeting minimum efficiency requirements for the spray application of primers and topcoats that contain

inorganic HAP so they also apply to specialty coatings. Additionally, we proposed that the low-volume exemption provisions in the current Aerospace NESHAP for primers, topcoats and chemical milling maskants be revised to include specialty coatings.

##### 2. What changed since proposal?

The EPA is including a definition of “non-HAP material” in 40 CFR 63.742, and revising 40 CFR 63.741(f) to exclude non-HAP coatings, strippers, maskants, and cleaning solvents from the requirements to reduce organic HAP emissions from aerospace manufacturing and rework operations. The final rule also clarifies that only the organic HAP content limits for all types of coatings are enforceable (*i.e.*, a coating cannot be considered out of compliance if it exceeds the VOC content, but does not exceed the HAP content limit), and that the VOC content can be used to demonstrate compliance with the HAP content limit for coatings that do not contain HAP solvents that are exempt from the EPA’s definition of VOC found at 40 CFR 51.100(s).

The EPA is amending 40 CFR 63.741(f) in the final rule to exempt coatings that have been designated as “classified national security information” and amending 40 CFR 63.742 to add the definition of “classified national security information.” The EPA is revising the definition in Appendix A to subpart GG of “electric or radiation-effect coating” to change the word “classified” to “classified national security information.”

The EPA is also revising the definition of “electrostatic discharge and electromagnetic interference (EMI) coating” in Appendix A to subpart GG to reflect all of the uses of these coatings on aerospace vehicles and components.

##### 3. Comments and Responses

*Comment:* One commenter argued that the EPA should not issue dual limits for VOC and HAP for specialty coatings and should clarify that the VOC limits are not separately enforceable and are used only as a surrogate for HAP. The commenter argued that the EPA should make clear in the final rule that:

- (1) Only the organic HAP limits are enforceable;
- (2) Coatings that do not contain organic HAP are not covered by the rule; and
- (3) For coatings that do not contain exempt solvents that are also HAP, VOC content may be used to demonstrate compliance with the organic HAP limits as an alternative to determining organic HAP content directly.

The commenter argued that CAA section 112 does not allow for the setting of VOC limits, except as a surrogate for HAP content, and then only in situations in which the HAP content could not exceed the VOC content. Therefore, the use of the VOC content to demonstrate compliance with the HAP content limits can only apply when the coating does not contain any exempt solvents that are HAP. The commenter argued that the VOC content would effectively cap the HAP content in those coatings with no exempt solvents.

The commenter also argued that under either approach, coatings that do not contain any organic HAP cannot be subject to the HAP content limits or the VOC limits as a surrogate for HAP, and the rule should include a provision to clarify this. The commenter argued that facilities can use coating formulation information to establish whether or not the coatings contain organic HAP.

*Response:* The EPA agrees with the commenter's recommendations to clarify the relationship between the VOC content of coatings and the HAP emission limits. In the final rule, the EPA is including a definition of "non-HAP material" in 40 CFR 63.472, and revising 40 CFR 63.741(f) to exclude non-HAP coatings from the requirements to reduce organic HAP emissions from coating operations. These clarifications and revisions in the final rule apply to all coating operations and not just specialty coating operations. The definition of "non-HAP material" is consistent with the HAP content criteria in other surface coating NESHAP.

The final rule also clarifies that only the organic HAP content limits are enforceable (*i.e.*, a coating cannot be considered out of compliance if it exceeds the VOC content, but does not exceed the HAP content limit), and that the VOC content can be used to demonstrate compliance with the HAP content limit for coatings that do not contain exempt solvents that are HAP. For coatings that contain exempt solvents that are HAP, the HAP content must be used to demonstrate compliance.

*Comment:* One commenter representing the Department of Defense (DoD) commented that DoD will be unable to certify compliance with the HAP/VOC limits for some materials whose composition is classified as national security information. The materials have properties with specific, classified characteristics based on their use such as radiation-effect coating, according to the commenter. Disclosure of the composition of these materials

would risk undermining the function of the coating or could provide sufficient information that could be used to counter the effect of the coating, according to the commenter. The commenter requested that the proposed rule be modified to continue to exempt materials that meet the definition of "Classified National Security Information."

The commenter recommended that the EPA amend 40 CFR 63.742 with an additional definition for the term "Classified National Security Information" to read as follows:

*Classified National Security Information* means information that has been determined pursuant to this Executive Order 13526, "Classified National Security Information," December 29, 2009 or any successor order to require protection against unauthorized disclosure and is marked to indicate its classified status when in documentary form. The term "Classified Information" is an alternative term that may be used instead of "Classified National Security Information."

*Response:* The EPA agrees with the commenter. Therefore, the EPA is amending 40 CFR 63.741(f) in the final rule to specify that certain coatings that have been designated as "classified national security information" are not subject to the requirements of subpart GG and amending 40 CFR 63.742 to add the definition of "classified national security information" as suggested by the commenter. For consistency, the EPA is also revising the definition of "electric or radiation-effect coating" to change the word "classified" to "classified national security information."

*Comment:* One commenter argued that the current definition of electrostatic discharge and EMI coating in Appendix A to subpart GG appears to limit the use of these coatings on aircraft radomes, but these coatings are commonly used on several parts of the non-metallic exterior portions of the aircraft to dissipate electrical charge, not just the composite radome. The commenter recommended that the EPA should change the definition to reflect all of the uses of coatings on aircraft to state the following (deleted text in brackets, added text in italics):

*Electrostatic discharge and electromagnetic interference (EMI) coating*—A coating applied to [space vehicles, missiles, aircraft radomes, and helicopter blades] *aerospace vehicles or components* to disperse static electricity or reduce electromagnetic interference.

*Response:* The EPA agrees with the commenter that this definition should be revised as suggested to reflect all of the uses of these coatings on aerospace vehicles and components.

#### 4. Rationale for Final Approach

For the reasons explained in the preamble to the proposed rule, in the comment responses in section IV.D.3 of this preamble, and in the response to comments document in the docket for this rulemaking, we are finalizing the proposed requirements for specialty coatings with respect to HAP and VOC content limits as proposed and with the changes described in section IV.D.2 of this preamble.

#### *E. Specialty Coating Application Equipment Requirements*

##### 1. What did we propose?

The EPA proposed that specialty coating application operations be subject to the same application equipment requirements in 40 CFR 63.745(f) that apply to primer and topcoat application operations. These requirements include the use of either non-spray application methods (*e.g.*, brush or roller), or the use of high-efficiency spray application methods (*e.g.*, high-volume low-pressure (HVLP) or electrostatic spray guns), with exceptions for certain coating operations and materials.

##### 2. What changed since proposal?

The EPA is revising the application equipment requirements in 40 CFR 63.745(f) since proposal to make the following changes in the final rule:

- Exclude the application of adhesives, sealants, maskants, caulking materials, and inks from the application equipment requirements. (These coatings will be still subject to the organic HAP content limitations in 40 CFR 63.745(c).)
- Exclude from the application equipment requirements the application of any high-solids coating (not just specialty coatings) that contains less than 20 grams per liter of VOC for coatings that do not contain exempt solvents that are HAP, or 20 grams per liter of HAP for coatings that do contain exempt solvents that are HAP.
- Exclude from the application equipment requirements the application of all coatings (not just specialty coatings) applied using hand-held application equipment with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). The exclusion from the application equipment requirements is also limited to the spray application of no more than 3.0 fluid ounces of coating in a single application or "job" (*i.e.*, the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component) from a hand-held device with a paint cup

capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). Using multiple small paint cups or refilling a small paint cup to apply more than 3.0 fluid ounces of coating under this exclusion in 40 CFR 63.745(f) is prohibited. If a paint cup liner is used in a reusable holder or paint cup, then the holder or paint cup must be designed to hold a liner with a capacity of no more than 3.0 fluid ounces. (These coatings will still be subject to the organic HAP content limitations in 40 CFR 63.745(c).)

- Include high-efficiency airless spray guns and air-assisted airless spray guns in the list of allowable application methods for all coatings (not just specialty coatings).
- Revise 40 CFR 63.745(f)(1) and (f)(2) to clarify that the high-efficiency application equipment requirements apply only to spray-applied coating operations, as defined in 40 CFR 63.742, and remove the references to non-spray application methods.

The final rule includes a definition of “spray-applied coating operation” in 40 CFR 63.742 to clarify the applicability of the requirements in 40 CFR 63.745(f) and (g).

For specialty coating operations, the final rule also provides an alternative to the application equipment equivalency demonstration requirements in 40 CFR 63.750(i) so owners and operators may apply specialty coatings using any other coating application method capable of achieving emission reductions or a transfer efficiency equivalent to or better than that provided by HVLP, electrostatic spray, air-assisted airless, or airless application. To use this option, the owner or operator must also maintain records demonstrating the transfer efficiency achieved.

### 3. Comments and responses

*Comment:* One commenter argued that 40 CFR 63.745(f) should be revised to clarify that the proposed specialty coating application equipment requirements allow the use of any non-spray application equipment. The commenter argued that the rule allows the use of alternatives to the methods listed in 40 CFR 63.745(f)(1), but only if they are demonstrated to be equivalent to HVLP spray or electrostatic spray, according to 40 CFR 63.750(i). The commenter argued that the rule should be revised to allow all hand application methods and non-spray methods allowed in the California rules and to require the equivalency demonstration only for spray application methods. The commenter recommended that the EPA add the following language to 40 CFR

63.745(f)(1) to clarify that other methods are allowed:

In addition to the methods in (f)(1)(i) through (f)(1)(ix), specialty coatings may be applied by flow coating, web coating, coil coating, touch-up markers, marking pens, trowels, spatulas, daubers, rags, sponges, and mechanically and/or pneumatic-driven syringes.

*Response:* The EPA agrees with the commenter that 40 CFR 63.745(f) should be revised to clarify that any hand or non-spray application methods should be allowed. Although the commenter made this in reference to only specialty coatings, the same is also true for the other types of coatings regulated by subpart GG. However, the EPA has determined that, based on the public comments received, further clarification and simplification of 40 CFR 63.745(f) are needed in the final rule. The purpose of this section is to minimize emissions from spray-applied coating operations by requiring the use of high-efficiency spray application equipment in almost all spray-applied coating operations, except in limited situations in which it is not technically feasible. All hand and non-spray application methods, including the specialty coating methods listed by the commenter, have essentially 100-percent transfer efficiency because no coating material is lost to overspray. The same is also true of other non-spray methods listed in 40 CFR 63.745(f): Flow/curtain coat application; dip coat application; roll coating; brush coating; cotton-tipped swab application; and electrodeposition (dip) coating. Two of the application methods mentioned by the commenter, touch-up markers and marking pens, are not included in the list of allowed methods in the final rule because the definition of “coating” in the final rule excludes materials applied by these methods, as a result of changes made in response to other public comments.

Therefore, in order to clarify and simplify the requirements of 40 CFR 63.745(f) in the final rule, the EPA is removing the references to these non-spray application methods and is revising the language of this section to clarify that these requirements apply to only spray-applied coating operations. The final rule is also adding a definition of “spray-applied coating operations” to 40 CFR 63.742. The definition of spray-applied coating operation added to 40 CFR 63.742 includes a list of application methods that are excluded from this definition, and these exclusions include, but are not limited to, the non-spray application methods that were formerly listed in 40 CFR 63.745(f) and

the additions suggested by the commenters.

*Comment:* One commenter argued that adhesives, sealants, maskants, caulking materials, and inks are not atomized even when applied with spray application equipment; therefore, the application of these specialty coatings is not a spray-application operation and should not be subject to the high efficiency application equipment requirements. The commenter argued that the EPA should clarify that the application of adhesives, sealants, and maskants, caulking materials, and inks is not subject to the application equipment requirements by adding these to the list of exemptions in 40 CFR 63.745(f)(3).

*Response:* The EPA agrees with the commenter that these operations should be excluded from the provisions for spray-applied coating operations in 40 CFR 63.745(f). In other, more recently developed surface coating NESHAP such as 40 CFR part 63, subpart HHHHHH, the EPA also recognized that these materials are not atomized in the same way as, for example, primers and topcoats, even when applied with spray application equipment.

*Comment:* One commenter argued that 40 CFR 63.745(f)(3)(ii), which is an exemption from the high-efficiency application requirement in 40 CFR 63.745(f)(1), should be revised to exempt coatings that contain less than 20 grams of VOC per liter of coating. The commenter argued that this exemption accommodates spray application of low VOC coatings with high solids content that are not practical to apply with high-efficiency equipment, such as high solid/low VOC ceramic coatings applied to reduce the infrared signature of military aircraft and are classified as electric or radiation-effect specialty coatings. These coatings are not water-reducible and, due to high viscosity, cannot be spray applied using high-efficiency application equipment. The commenter noted that this exemption is also found in the California South Coast Air Quality Management District and Antelope Valley Air Quality Management District aerospace rules.

*Response:* The EPA agrees with the commenter on the need for an exemption from the application equipment rules for coatings that contain less than 20 grams of VOC per liter of coating. (These coatings continue to be subject to all other applicable requirements of subpart GG.) However, because subpart GG is a NESHAP and is not a VOC rule, facilities will be able to use the VOC content to meet this exemption only for coatings that do not

contain HAP that are exempt from the definition of VOC. For coatings that contain HAP that are exempt from the definition of VOC, facilities will need to consider both the HAP and VOC content in determining whether the coatings qualify for this exemption to ensure that it is applied only to coatings with a high-solids content as intended.

*Comment:* One commenter argued that 40 CFR 63.745(f)(3) should be revised to allow the use of detailing guns or airbrushes for all specialty coating application operations, and not just the two exemptions currently in the rule at 40 CFR 63.745(f)(3)(i) and (iv).

*Response:* The EPA agrees that the use of airbrushes and detailing guns should be allowed for all specialty coating operations, and not just those included at 40 CFR 63.745(f)(3)(i) and (iv). Although the commenter made this comment in reference to only specialty coatings, the same is also true for the other types of coatings regulated by subpart GG, so the EPA is making this revision for all coatings. In past surface coating rulemakings, the EPA has determined that it is difficult to precisely define a “detailing gun” and “airbrush,” and these terms are not currently defined in subpart GG. Instead, in more recent rulemakings the EPA has adopted an objective standard based on the capacity of the paint cup attached to the spray gun to identify equipment that is typically considered an airbrush or detail gun. In 40 CFR part 63, subparts HHHHHH and XXXXXX, the EPA included less stringent provisions for hand-held application equipment with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). The EPA is adopting the same approach in the final amendments to 40 CFR 63.745(f)(3), but is also including language that limits the amount of coating applied to no more than 3.0 fluid ounces in a single coating operation. The exclusion from the application equipment requirements is also limited to the spray-application of no more than 3.0 fluid ounces of coating in a single application or “job” (*i.e.*, the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component) from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). Using multiple small paint cups or refilling a small paint cup to apply more than 3.0 fluid ounces under this exclusion in 40 CFR 63.745(f) is prohibited. If a paint cup liner is used in a reusable holder or cup, then the holder or cup must also be designed to hold a liner with a capacity of no more

than 3.0 fluid ounces. For example, a 3.0 ounce liner cannot be used in a holder that can also be used with a 6.0 ounce liner. This language is intended to prevent facilities from circumventing the rule by refilling paint cups or by using multiple detachable cups that have been filled in advance. (These coatings continue to be subject to the organic HAP content limitations in 40 CFR 63.745(c).)

*Comment:* One commenter argued that 40 CFR 63.745(f)(1) should be revised to allow the use of high-efficiency air-assisted airless spray guns, airless spray guns, screen printing, and inkjet printing for application of specialty coatings because these technologies are equivalent to or better than HVLP. The commenter argued that under CAA section 112(h)(3), the Agency must allow alternative equipment that achieves equivalent emission reductions to the equipment prescribed as MACT. The commenter also noted that under other NESHAP (*e.g.*, 40 CFR part 63, subparts JJ and HHHHHH), the EPA has determined that air-assisted airless and airless spray guns are equivalent to HVLP and electrostatic spray, which the EPA has designated as the MACT for aerospace specialty coatings. The commenter also noted that 40 CFR part 63, subpart HHHHHH allows the use of air-assisted airless spray guns and airless spray guns (in addition to HVLP) for aerospace surface coating operations at area sources. Further, the commenter noted that several state and regional air agencies allow the use of air-assisted airless spray guns and airless spray guns as equivalent to HVLP and included copies of two permits from the Antelope Valley Air Quality Management District and the Georgia Environmental Protection Division.

Finally, the commenter argued that screen printing and ink jet technology should be listed as approved application methods because they each achieve nearly 100-percent transfer efficiency, which is higher than the transfer efficiency of HVLP spray guns.

*Response:* The EPA agrees with the commenter that these alternative application methods (high-efficiency air-assisted airless spray guns, airless spray guns, screen printing, and inkjet printing) should be allowed under 40 CFR 63.745(f)(1) for surface coating application. Although the commenter made this comment in reference to specialty coatings only, the same is also true for the other types of coatings regulated by subpart GG; so, the EPA is making this revision for all coatings. As the commenter noted, the EPA has already included air-assisted airless

spray guns and airless spray guns in other more recent surface coating rule makings. The EPA is adding them to the list of allowed methods under subpart GG because they are considered equivalent in efficiency to the methods already listed. The EPA is also including screen printing and inkjet printing to the list of methods that are considered non-spray application methods with transfer efficiency at least equal to the other non-spray application methods already in the rule. The definition of “spray-applied coating operation” being added to 40 CFR 63.742 specifically excludes screen printing and inkjet printing.

*Comment:* One commenter argued that the EPA should provide an alternative to using the equivalency demonstration requirements in 40 CFR 63.750(i). The commenter argued that the method in 40 CFR 63.750(i) is overly burdensome, especially for specialty coatings, because it requires testing on parts of a similar configuration to the actual parts being coated, and because of the number of specialty coatings used at most facilities. The commenter recommended that for specialty coatings, the EPA should allow a facility to use any application method that achieves emission reductions or a transfer efficiency equal to or better than the methods approved in the rule (HVLP, electrostatic spray, air-assisted airless, and airless), and that the EPA should allow facilities to use a method of its choice to demonstrate equivalency. The commenter argued that clarifying that facilities may demonstrate either equivalent emission reductions or transfer efficiency would increase flexibility in the rule by allowing the use of either type of equivalency method. The commenter recommended that the following language be added to 40 CFR 63.745(f):

For specialty coatings, any other coating application method capable of achieving emission reductions or a transfer efficiency equivalent to or better than that provided by HVLP, electrostatic spray, air-assisted airless, or airless application. Any owner or operator using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.

*Response:* The EPA agrees with the commenter that the approval procedures specified in 40 CFR 63.750(i) may be less appropriate for specialty coatings than for primers and topcoats because of the diversity of parts on which specialty coatings are used. Therefore, the EPA is adding language similar to the recommended language to 40 CFR 63.750(i) for specialty coating application methods, which is the



actual approval process that needs to be revised for specialty coatings. The EPA also recognizes that with the addition of other application methods in 40 CFR 63.745(f)(1), aerospace facilities will be less likely to have to demonstrate that an alternative method is equivalent to HVLP or electrostatic spray application methods.

#### 4. Rationale for Final Approach

For the reasons explained in the preamble to the proposed rule, in the comment responses in section IV.E.3 of this preamble, and in the response to comments document in the docket for this rulemaking, we are finalizing requirements for specialty coatings with respect to application equipment methods, as proposed, and with the changes described in section IV.E.2 of this preamble.

#### F. Specialty Coating Inorganic HAP Control Requirements

##### 1. What did we propose?

The EPA proposed that specialty coating application operations that include the spray application of coatings that contain inorganic HAP be subject to the same standards for inorganic HAP emissions in 40 CFR 63.745(g) that apply to primer and topcoat application operations. These requirements include the use of a spray booth or similar enclosure that is fitted with filters on the exhaust and minimum filtration efficiency requirements for the exhaust filters.

##### 2. What changed since proposal?

The EPA is revising the inorganic HAP control requirements in 40 CFR 63.745(g) since proposal to make the following changes:

- Clarifying in 40 CFR 63.745(g) that the inorganic HAP control requirements apply to only spray-applied coatings, and adding a definition of “spray-applied coating operations” to 40 CFR 63.742.
- Excluding from the inorganic HAP control requirements coatings applied from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). The exclusion from the inorganic HAP control requirements is also limited to the spray application of no more than 3.0 fluid ounces of coating in a single application or “job” (*i.e.*, the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component) from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). Using multiple small paint cups or

refilling a small paint cup to apply more than 3.0 fluid ounces under this exclusion in 40 CFR 63.745(g) is prohibited. If a paint cup liner is used in a reusable holder or paint cup, then the holder or cup must be designed to hold a liner with a capacity of no more than 3.0 fluid ounces. (These coatings will continue to be subject to the organic HAP content limitations in 40 CFR 63.745(c).)

- Clarifying that the use of portable enclosures that meet the same filtration requirements as for spray booths can be used to comply.
- Allowing facilities that use spray booths to control inorganic HAP emissions to use an interlock system that will automatically shut down the surface coating equipment if the monitored parameters for the filtration system deviate from the allowed operating range.

##### 3. Comments and Responses

*Comment:* One commenter argued that the EPA should clarify the operations subject to the inorganic HAP requirements by defining “spray-applied coating operation.” The commenter noted that the term “spray gun” is defined in the current rule as “a device that atomizes a coating or other material and projects the particulates or other material onto a substrate.” The commenter noted that 40 CFR part 63, subpart HHHHHH, which applies to area source aerospace facilities, excludes some specialty coating materials (including adhesives, sealants, maskants, and caulking materials) from the definition of spray-applied coating operation because they are not spray applied or are not atomized even when they are applied with a spray gun, and instead are emitted in larger particles that settle near the source and are not emitted. The commenter also noted that certain application methods were excluded from the definition of “spray-applied coating operation” in subpart HHHHHH, including the following: Powder coating, hand-held non-refillable aerosol containers, and non-atomizing application technology (for example, paint brushes, rollers, hand wiping, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, and marking pens).

The commenter recommended that the operations subject to the inorganic HAP control requirements be clarified by adding the following definition to 40 CFR 63.742:

*Spray-Applied Coating Operations* means operations that apply coatings using a device that creates an atomized mist of coating and deposits the coating on a substrate. For the

purposes of this subpart, spray-applied operations do not include the following materials or activities:

- (1) Application of coating using powder coating, hand-held non-refillable aerosol containers, or non-atomizing application technology, including but not limited to paint brushes, rollers, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, marking pens, trowels, spatulas, daubers, rags, sponges, mechanically and/or pneumatic-driven syringes, and inkjet machines.
- (2) Application of adhesives, sealants, maskants, caulking materials, and inks.

*Response:* The EPA agrees with the commenter that certain operations, which are often performed with specialty coatings, should be specifically excluded from the inorganic HAP control requirements for spray-applied coating operations because they are not, in fact, applied with atomizing spray application equipment. Therefore, the EPA is adopting a definition very similar to that suggested by the commenter. The suggested definition is consistent with the provisions in 40 CFR part 63, subpart HHHHHH for defining coating operations subject to the inorganic HAP control requirements in subpart HHHHHH.

*Comment:* One commenter argued that the rule should include an additional exemption from the inorganic HAP requirements for specialty coatings in 40 CFR 63.745(g)(4) for the application of coatings from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). The commenter noted that this exemption is provided in 40 CFR part 63, subpart HHHHHH to accommodate low volume applications, including operations that use airbrushes, which may occasionally occur in various locations throughout the assembly facility where it is impractical to relocate the aircraft or part to a coating booth. Because the paint cup capacity is limited to 3.0 fluid ounces, operations of this type are inherently limited and result in little or no inorganic HAP emissions. Providing this exemption for specialty coatings would allow operational flexibility without creating extra HAP emissions, according to the commenter.

*Response:* The EPA agrees with the commenter on the need for the suggested exemption for coatings applied from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). (These coatings will continue to be subject to the organic HAP content limitations in 40 CFR 63.745(c) and other applicable requirements of subpart GG.) The EPA



is incorporating this change into the final rule because it is consistent with the exemption for coatings applied with air brushes in 40 CFR part 63, subpart HHHHHH, as noted by the commenter. This exemption is also consistent with the current exemptions in 40 CFR 63.745(g) for the control of inorganic HAP, for example, stencil operations performed by brush or airbrush, and the use of hand-held aerosol can application methods. The EPA is also including language that limits the amount of coating applied to no more than 3.0 fluid ounces in a single coating operation. The exclusion from the inorganic HAP control requirements is limited to the spray-application of no more than 3.0 fluid ounces of coating in a single application or “job” (*i.e.*, the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component) from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). Using multiple small paint cups or refilling a small paint cup to apply more than 3.0 fluid ounces of coating under this exclusion in 40 CFR 63.745(g) is prohibited. If a paint cup liner is used in a holder or cup, then the holder or cup must also be designed to hold a liner with a capacity of no more than 3.0 fluid ounces. For example, a 3.0 ounce liner cannot be used in a holder or cup that can also be used with a 6.0 ounce liner. This language is intended to prevent facilities from circumventing the rule by refilling paint cups or by using multiple detachable cups that have been filled in advance.

*Comment:* One commenter requested that the EPA allow interlock systems as an alternative to daily pressure drop and water flow readings on coating spray booths, as this type of system automatically shuts off the air supply to the spray guns if the monitored parameters are out of range. The commenter noted that the EPA has included an interlock option in other NESHAP (*e.g.*, 79 FR 72874, December 8, 2014). The commenter argued that an interlock system option would reduce the monitoring and recordkeeping burden for regulated facilities while ensuring that coating operations cease when the parameters are out of range.

*Response:* The EPA agrees that these types of interlock systems accomplish the same objectives as daily pressure drop and water flow readings and reduce the monitoring and recordkeeping burden associated with the use of spray booths to control inorganic HAP emissions from spray-applied coating operations, and has included this option in the final rule.

#### 4. Rationale for Final Approach

For the reasons explained in the preamble to the proposed rule, in the comment responses in section IV.F.3 of this preamble, and in the response to comments document in the docket for this rulemaking, we are finalizing the proposed requirements for specialty coatings with respect to the requirements for controlling inorganic HAP emissions as proposed and with the changes described in section IV.F.2 of this preamble.

#### G. Complying With the Specialty Coating Limits

##### 1. What did we propose?

The EPA proposed to revise 40 CFR 63.750 to include alternative compliance demonstration provisions for all coatings subject to the Aerospace NESHAP (primers, topcoats, specialty coatings and chemical milling maskants). If the manufacturer’s supplied formulation data or calculation of HAP and VOC content indicates that the coating meets the organic HAP and VOC content emission limits for its coating type, as specified in 40 CFR 63.745(c) and 63.747(c), then the owner or operator would not be required to demonstrate compliance for these coatings using the test method and calculations specified in 40 CFR 63.750(c), (e), (k), and (m), or to keep the associated records and submit reports associated with these methods and calculations. Instead, the owner or operator would be able to rely on the manufacturers’ formulation data and calculation of the HAP or VOC content to demonstrate compliance. However, the owner or operator would continue to be required to maintain purchase records and manufacturers’ supplied data sheets for these compliant coatings. Owners or operators of facilities using these coatings would also continue to be required to handle and transfer these coatings in a manner that minimizes spills, apply these coatings using one or more of the specified application techniques and comply with inorganic HAP emission requirements.

##### 2. What changed since proposal?

The EPA has revised 40 CFR 63.750(c) (Organic HAP content level determination—compliant primers, topcoats, and specialty coatings) and 63.750(k) (Organic HAP content level determination—compliant chemical milling maskants) to add a provision that owners and operators may add non-HAP solvents to coatings that meet the organic HAP and VOC content limits as supplied by the manufacturer and added language to 63.752(c) and (f) to

specify the records that must be kept to demonstrate compliance using this provision.

The EPA revised 40 CFR 63.741(f) to clarify that subpart GG does not apply to coatings that do not contain HAP, but owners and operators can include these non-HAP coatings in averaging as long as records are kept of the non-HAP coatings used for averaging.

The EPA is revising the definition of coating in 40 CFR 63.742 to be consistent with the definition used in other more recent surface coating NESHAP.

We are also finalizing a change made since proposal as an outgrowth of comments to add EPA Method 311, Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings, as the reference method for determining the HAP content of primers, topcoats, and specialty coatings.

##### 3. Comments and Responses

*Comment:* One commenter recommended that the rule allow addition of HAP-free solvents to specialty coatings that meet the organic HAP and VOC content limits as supplied by the coating manufacturer. The commenter argued that industry members have identified several specialty coatings that meet the organic HAP and VOC content limits as supplied by the manufacturer but that would no longer meet the VOC limit “as applied” when solvents are added as recommended in the manufacturing specification. In those cases, the solvents added contain VOC, but no HAP, such as primers that are applied in warm weather. The commenter suggested that facilities would be required to keep records demonstrating compliance with the limits as supplied and that the solvents added do not contain HAP. The commenter argued that such a change would be equivalent to the proposed standards because (1) The coatings meet the organic HAP and VOC content limits as supplied, thereby effectively limiting the HAP content of the coating, and (2) the solvents added do not contain HAP, such that the coatings would remain compliant with the organic HAP limit “as applied.”

*Response:* The EPA agrees that facilities should be able to add non-HAP solvents to coatings that meet the organic HAP and VOC content limits as supplied by the manufacturer. The facilities will be required to keep records demonstrating that the coatings meet the HAP and VOC content limits as supplied and that the thinners contain no HAP. The EPA has added language to 40 CFR 63.750(c) (primers/topcoat/specialty) and (k) (chemical

milling maskants) to add this provision and to 40 CFR 63.752(c) and (f) to specify the records that must be kept to demonstrate compliance.

*Comment:* One commenter argued that the rule should be revised to clarify that it does not apply to specialty coatings that do not contain HAP. The commenter noted that proposed 40 CFR 63.741(f) includes the following sentence (emphasis added):

The requirements of this subpart also do not apply to primers, topcoats, specialty coatings, chemical milling maskants, strippers, and cleaning solvents containing HAP and VOC at concentrations less than 0.1 percent by mass for carcinogens or 1.0 percent by mass for non-carcinogens, as determined from manufacturer's representations, such as in a material safety data sheet or product data sheet, or testing.

The commenter argued that this could be interpreted to mean that the rule would regulate coatings that contain no HAP, if they contained VOC above the levels specified in that sentence. The commenter argued that this is likely to have been unintentional because the EPA has the authority to regulate only sources of HAP under CAA section 112, and the EPA cannot regulate sources of VOC that are not sources of HAP. The commenter argued, however, that aerospace facilities should have the option to use coatings with no HAP to demonstrate compliance using the coating content averaging provisions of 40 CFR 63.750(d) and (f) to encourage the development and use of non-HAP coatings. The commenter recommended that the following provision should be added to 40 CFR 63.741(f) to clarify the exemption:

The requirements of this subpart also do not apply to specialty coatings containing HAP at concentrations less than 0.1 percent by mass for carcinogens or 1.0 percent by mass for carcinogens, as determined from manufacturer's representations, such as in a material safety data sheet or product data sheet, or testing, except that if an owner or operator chooses to include one or more such coatings in averaging under §63.743(d), then the recordkeeping requirements of §63.752(c)(4) shall apply.

*Response:* The EPA agrees with the commenter that, as a rule promulgated under section 112 of the CAA, subpart GG should not apply to coatings that contain no HAP. Under CAA section 112(d)(1), the EPA is required to "promulgate regulations establishing emissions standards for each category or subcategory of major sources . . . of listed hazardous air pollutants." Therefore, the EPA is revising 40 CFR 63.741(f) to remove the reference to VOC in the sentence cited by the commenter. The EPA also agrees that

facilities should be allowed to include these non-HAP coatings in averaging, so the EPA is adding in language similar to that suggested by the commenter to clarify the recordkeeping requirements that would apply to these non-HAP coatings used in an average.

*Comment:* One commenter argued that the EPA should revise the definition of "coating" in 40 CFR 63.742 to be consistent with other surface coating NESHAP. The commenter argued that the current definition is vague, and with the proposed regulation of specialty coatings, it could be read to include products that are not considered coating products under other EPA surface coating rules. The commenter argued that the definition should limit coatings to liquid or mastic materials and exclude materials that are excluded from the definition of coating in other EPA rules. The commenter recommended the following definition of coating:

Coating means a liquid, liquefiable, or mastic composition that is applied to the surface of an aerospace vehicle or component and converted by evaporation, cross-linking, or cooling, to form a decorative, protective, or functional solid film or the solid film itself. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

*Response:* The EPA agrees with the commenter that the definition of "coating" should be clarified because of the addition of specialty coatings, and the revised definition should be consistent with other surface coating NESHAP. The EPA reviewed the definitions of "coating" in other surface coating NESHAP and is revising the definition in subpart GG to match the definition used in 40 CFR part 63, subparts MMMM and PPPP to account for the diversity of materials represented by the specialty coatings and to clarify that the standards do not apply to paper or plastic film pre-coated with an adhesive by the film manufacturer.

The EPA is also excluding materials in handheld, non-refillable aerosol containers, touch-up markers, and marking pens from the definition of coating because these types of coatings have been excluded from the definition of "coating" or "coating operation" in other surface coating NESHAP. Aerosol coatings have been excluded from the subpart GG emissions limits because they are included in the list of specialty coatings in Appendix A to subpart GG.

The EPA is not adding the suggested language that a coating is "a liquid,

liquefiable, or mastic composition that is applied to the surface of an aerospace vehicle or component and converted by evaporation, cross-linking, or cooling, to form a decorative, protective, or functional solid film or the solid film itself." The EPA believes that this language is not needed because the revised definition will now include the following as examples of coatings: Paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. The EPA believes that these examples will be at least as illustrative as the language suggested by the commenter and will be consistent with the definition of "coatings" in other EPA rules.

The definition of coating in the final rule reads as set forth in 40 CFR 63.742.

#### 4. Rationale for Final Approach

For the reasons explained in the preamble to the proposed rule, in the comment responses in section IV.G.3 of this preamble, and in the response to comments document in the docket for this rulemaking, we are finalizing the proposed requirements for specialty coatings with respect to the compliance requirements as proposed and with the changes described in section IV.G.2 of this preamble.

#### H. Electronic Reporting Requirements

##### 1. What did we propose?

The EPA proposed that owners and operators of aerospace manufacturing and rework facilities submit electronic copies of certain required performance test reports by direct computer-to-computer electronic transfer using EPA-provided software. The direct computer-to-computer electronic transfer is accomplished through the EPA's CDX using the CEDRI. The CDX is the EPA's portal for submittal of electronic data using the EPA-provided ERT to generate electronic reports of performance tests and evaluations. The ERT generates an electronic report package that will be submitted using the CEDRI. The submitted report package will be stored in the CDX archive (the official copy of record) and the EPA's public database called WebFIRE. All stakeholders would have access to all reports and data in WebFIRE and accessing these reports and data will be very straightforward and easy (see the WebFIRE Report Search and Retrieval link at <http://cfpub.epa.gov/webfire/index.cfm?action=fire.searchERTSubmission>). A description of the WebFIRE database is available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. A description of the ERT and instructions

for using ERT can be found at <http://www3.epa.gov/ttn/chief/ert/index.html>. CEDRI can be accessed through the CDX Web site (<http://www.epa.gov/cdx>).

The submission of performance test data electronically to the EPA applies only to those performance tests conducted using test methods that will be supported by the ERT. The ERT contains a specific electronic data entry form for most of the commonly used EPA reference methods. A listing of the pollutants and test methods supported by the ERT is available at <http://www.epa.gov/ttn/chief/ert/index.html>.

## 2. What changed since proposal?

The EPA is making no changes to the proposed electronic reporting requirements and they are being finalized as proposed.

## 3. Comments and Responses

Comments were received regarding the proposed electronic reporting requirements and were generally supportive. The comments and our specific responses to those comments can be found in the comment summary and response document available in the docket for this action (EPA-HQ-OAR-2014-0830).

## 4. Rationale for Final Approach

For the reasons explained in the preamble to the proposed rule and in the response to comments document in the docket for this rulemaking, we are finalizing the requirements for electronic reporting as proposed.

### I. Startup, Shutdown, and Malfunction Provisions

#### 1. What did we propose?

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 have eliminated the SSM exemption in this rule. Consistent with *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), *cert. denied*, 130 S. Ct. 1735 (U.S. 2010), the EPA proposed to remove the SSM provisions and other changes so that standards in this rule would apply at all times. We also proposed several revisions to Table 1 to

subpart GG of part 63 (the General Provisions Applicability Table, hereafter referred to as the "General Provisions table") as explained in more detail below. For example, we proposed to eliminate the incorporation of the General Provisions' requirement that the source develop an SSM plan. We also proposed to eliminate and revise certain recordkeeping and reporting requirements related to the SSM exemption as further described below.

In proposing the standards in this rule, the EPA took into account startup and shutdown periods and, for the reasons explained below, did not propose alternate standards for those periods. Information on periods of startup and shutdown received from the facilities through CAA section 114 questionnaire responses indicated that emissions during these periods do not exceed the emissions during normal operations. The facilities do not perform the regulated surface coating operations unless and until their control devices (e.g., spray booths or other types of control devices) are operating to fully control emissions. Therefore, we determined that separate standards for periods of startup and shutdown are not necessary.

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. 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. 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 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 D.C. Circuit 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. A malfunction should not be treated 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.

Further, accounting for malfunctions in setting emission 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. As a result, 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 offline 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 and 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.

In the 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. The EPA would also consider whether the source's failure to comply with the CAA section 112 standard was, in fact, sudden, infrequent, not reasonably preventable and was not instead caused in part by poor maintenance or careless operation.

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.

#### a. 40 CFR 63.743(e) General Duty

We proposed to revise the entry in the General Provisions table for 40 CFR 63.6(e)(1)(i) by changing the "yes" in column 2 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 proposed instead to add general duty regulatory text at 40 CFR 63.743(e) that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The former language in 40 CFR

63.6(e)(1)(i) characterized what the general duty entailed during periods of SSM. With the elimination of the SSM exemption, there was no need to differentiate between normal operations and SSM events in describing the general duty. Therefore the language the EPA proposed for 40 CFR 63.743(e) does not include that language from 40 CFR 63.6(e)(1).

We also proposed to revise the General Provisions table entry for 40 CFR 63.6(e)(1)(ii) by changing the "yes" in column 2 to a "no." Section 63.6(e)(1)(ii) imposed 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 63.743(e).

#### b. SSM Plan

We proposed to revise the General Provisions table entry for 40 CFR 63.6(e)(3) by changing the "yes" in column 2 to a "no." Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. As noted, the EPA proposed 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 proposed to revise the General Provisions table entry for 40 CFR 63.6(f)(1) by changing the "yes" in column 2 to a "no." The former language of 40 CFR 63.6(f)(1) exempted sources from non-opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club v. EPA* 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 proposed to revise some standards in this rule to apply at all times.

#### d. 40 CFR 63.749(j) Performance Testing

We proposed to revise the General Provisions table entry for 40 CFR 63.7(e)(1) by changing the "yes" in column 2 to a "no." Section 63.7(e)(1) describes performance testing requirements. The EPA instead proposed to add a performance testing requirement at 40 CFR 63.749(j). The performance testing requirements we proposed 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 specified that performance testing of controls must be conducted during representative operating conditions of the applicable source and may not take place during SSM periods of the applicable controlled surface coating operations, controlled chemical milling maskant application operations or controlled chemical depainting operations. 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. The EPA proposed to add language that requires the owner or operator to record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Section 63.7(e) requires that the owner or operator make available to the Administrator such records "as may be necessary to determine the condition of the performance test" available to the Administrator upon request, but does not specifically require the information to be recorded. The regulatory text the EPA proposed to add to this provision builds on that requirement and makes explicit the requirement to record the information.

#### e. Monitoring

We proposed to revise the General Provisions table entry for 40 CFR 63.8(c)(1)(i) and (iii) by changing the "yes" in column 2 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)).

#### f. 40 CFR 63.752(a) Recordkeeping

We proposed to revise the General Provisions table entry for 40 CFR 63.10(b)(2)(i) by changing the "yes" in column 2 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 proposed 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 proposed to revise the General Provisions table entry for 40 CFR 63.10(b)(2)(ii) by changing the “yes” in column 2 to a “no.” Section 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction. The EPA proposed to add such requirements to 40 CFR 63.752(a). The regulatory text we proposed to add differs from the General Provisions it is replacing 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. The EPA proposed that this requirement apply to any failure to meet an applicable standard and proposed to require that the source record the date, time, and duration of the failure rather than the “occurrence.” The EPA also proposed to add to 40 CFR 63.752(a) a requirement that sources 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 standard for which the source failed to meet the standard, and a description of the method used to estimate the emissions. Examples of such methods include mass balance calculations, measurements when available, or engineering judgment based on known process parameters (e.g., coating HAP content and application rate or control device efficiencies). The EPA proposed 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 proposed to revise the General Provisions table entry for 40 CFR 63.10(b)(2)(iv) by changing the “yes” in column 2 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 63.752(a).

We proposed to revise the General Provisions table entry for 40 CFR 63.10(b)(2)(v) by changing the “yes” in column 2 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.

#### g. 40 CFR 63.753 Reporting

We proposed to revise the General Provisions table entry for 40 CFR 63.10(d)(5) by changing the “yes” in column 2 to a “no.” Section 63.10(d)(5) describes the reporting requirements for SSM periods. To replace the General Provisions reporting requirement, the EPA proposed to add reporting requirements to 40 CFR 63.753(a). The replacement language added to 40 CFR 63.753(a) differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We proposed 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 report already required under this rule. We proposed that the report must contain the number, date, time, duration and the cause of such events (including unknown cause, if applicable), a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

Examples of such methods include 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 proposed this requirement to ensure 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 will no longer be required. The proposed amendments will, therefore, eliminate 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 will be no longer necessary because the events will be reported in otherwise required reports with similar format and submittal requirements.

As discussed above, we proposed to revise the General Provisions table entry for 40 CFR 63.10(d)(5), by changing the “yes” in column 2 to a “no.” Section 63.10(d)(5)(ii) describes an immediate report for SSM events 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 SSM event were not consistent with an SSM plan, because plans will no longer be required, and other reports and records will be used 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.

#### 2. What changed since proposal?

We have not changed any aspect of the SSM provisions for the Aerospace Manufacturing and Rework Facilities source category since the proposal.

#### 3. Comments and Responses

Comments were received regarding the proposed revisions to remove the SSM exemptions for the Aerospace Manufacturing and Rework Facilities source category. The comments and our specific responses to those comments can be found in the comment summary and response document available in the docket for this action (EPA-HQ-OAR-2014-0830).

#### 4. Rationale for Final Approach

For the reasons provided above, provided in the preamble for the proposed rule and provided in the comment summary and response document available in the docket, we have removed the SSM exemption from the Aerospace NESHAP; eliminated or revised certain recordkeeping and reporting requirements related to the eliminated SSM exemption; and removed or modified inappropriate, unnecessary or redundant language in the absence of the SSM exemption. We are finalizing our proposed determination that facilities comply with the standards at all times and no additional standards are needed to address emissions during startup or shutdown periods.

### J. Effective Date and Compliance Dates for the Amendments

#### 1. What did we propose?

The EPA proposed that the compliance date for the proposed amendments would be the effective date of those amendments (*i.e.*, the date the final amendments are promulgated), with one exception. The EPA proposed a compliance date of 1 year after the effective date for the following standards for existing specialty coating affected sources: 40 CFR 63.745(c)(5) and (6) (HAP and VOC content limits for specialty coatings); 40 CFR 63.745(f) (coating application equipment); and 40 CFR 63.745(g) (control of inorganic HAP emissions).

#### 2. What changed since proposal?

The compliance date for existing specialty coating operations to comply with the amended requirements in 40 CFR 63.745 has been revised since proposal from 1 year from the effective date of this rule to 3 years from the effective date of this rule.

#### 3. Comments and Responses

*Comment:* Several commenters argued that the EPA should provide a 3-year compliance period for specialty coatings rather than the proposed 1-year period. All commenters argued that additional time is needed to determine whether each coating is compliant, to engineer new coating formulations, to ensure the replacement specialty coatings meet the needed performance requirements specified by aircraft manufacturers, DoD, Federal Aviation Administration (FAA), National Aeronautics and Space Administration (NASA), or other countries' government agencies. They argued that additional time is also needed to incorporate the new formulation into the material specifications and add the coating to the qualified product list for the aircraft, and to implement changes to raw material supply chains, product lines, and distribution channels to ensure compliance by the deadline and to mitigate the effect of obsolete products and product information.

One commenter noted that the EPA acknowledged the lengthy period of time needed to qualify new coatings with respect to the technology review performed for primer and topcoat operations. Another commenter argued that 1 year is shorter than compliance periods provided in any other surface coating NESHAP and in other RTR standards. The commenter noted that the CTG limits generally have been applied only to facilities in non-attainment areas, and facilities in

attainment areas may be faced with the need to reformulate some coatings. The commenter also argued that the application equipment and spray booth filtration requirements for specialty coatings will also be new requirements for all facilities using specialty coatings, and additional time may be needed to revise title V operating permits for new or upgraded spray booths, or to allow for averaging or alternative compliance demonstrations. The commenter added that, because of the large number of specialty coatings, additional time is also needed to develop compliance systems (even for facilities that previously were required to comply with the primer and topcoat operation standards), determine the VOC and HAP content of these coatings, and setting up recordkeeping and reporting systems.

*Response:* We agree with the commenters that, based on the additional information provided in their comments, a 3-year compliance period for existing sources is needed for specialty coating operations to comply with the new standards. A 3-year compliance period is the maximum amount of time allowed for an existing source compliance date under 40 CFR 63.6(c) of the General Provisions. Consistent with CAA section 112(i)(3), for standards developed under CAA section 112(d)(3) the EPA could provide up to a 3-year compliance date for existing sources. "[S]ection 112(i)(3)'s three-year maximum compliance period applies generally to 'any emissions standard . . . promulgated under [section 112].'" *Ass'n of Battery Recyclers v. EPA*, 716 F.3d 667, 672(D.C. Cir. 2013).

#### 4. Rationale for Final Approach

For the reasons provided in the preamble for the proposed rule, in the comment responses in section IV.J.3 of this preamble, and in the comment summary and response document available in the docket, we are finalizing the proposal to require that all of the amendments in the final rule will be effective on December 7, 2015, with one exception. The one exception is the compliance date for existing specialty coating affected sources (*i.e.*, existing on February 17, 2015) will be December 7, 2018, for the reasons explained in section IV.J.3 of this preamble.

### K. Standards for Cleaning Operations and Standards for Handling and Storage of Waste

#### 1. What did we propose?

The EPA proposed no changes to the standards for cleaning operations in 40 CFR 63.744 and for the standards for the

handling and storage of waste in 40 CFR 63.748.

#### 2. What changed since proposal?

Based on public comments received on the proposal, the EPA is clarifying the applicability of the requirements for the handling and storage of spent cleaning solvents and HAP-containing wastes in 40 CFR 63.744(a) and 63.748 relative to subpart GG and the regulations in 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC) that implement the RCRA. These clarifying changes include the following:

- Removing and reserving 40 CFR 63.741(e);
- Revising 40 CFR 63.744(a) to specify that fresh and spent cleaning solvents, and solvent-laden applicators that are not handled and stored in compliance with 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC) must comply with the requirements in 40 CFR 63.744(a)(1) through (a)(4); and
- Revising 40 CFR 63.748 to specify that wastes that contain organic HAP from aerospace surface coating operations (primer, topcoat, specialty coating, chemical milling maskant, and chemical depainting operations) that are not handled and stored in compliance with 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC) must be handled and stored as follows:

(a) Conduct the handling and transfer of wastes that contain organic HAP to or from containers, tanks, vats, vessels, or piping systems in such a manner that minimizes spills during handling and transfer; and

(b) Store all waste that contains organic HAP in closed containers.

#### 3. Comments and Responses

*Comment:* One commenter argued that the EPA may not exempt waste handling and storage operations from the technology review because doing so would violate CAA section 112(d)(6) and disagreed with the EPA's basis for not doing a technology review in the current rulemaking.

First, the commenter argued that the CAA requires a review of the existing emission standards at least every 8 years after promulgation, including reviewing developments in practices, processes, and control technologies. The commenter added that the EPA argued that "there is no need to do a technology review" in the current rulemaking because the EPA sets standards for

wastes not covered by RCRA and the EPA stated that “[t]he practical effect of [this rule] is that all HAP-containing wastes generated by aerospace manufacturing and rework operations are subject to RCRA and are exempt from the requirements of 40 CFR 63.748.” The commenter added that in 1994, for wastes that are not subject to the provisions of RCRA, the EPA promulgated standards that required HAP-containing waste to be handled in such a manner that spills are minimized for waste handling and storage operations. The commenter added that the EPA recognizes that it must perform the first required 8-year review of the 1994 standards.

In addition, the commenter argued that the EPA has not provided any data or other evidence showing that all aerospace waste is exempt from the current standards that apply to aerospace facilities, nor has it shown that aerospace waste and storage handling is actually regulated by RCRA. The commenter stated that the EPA cites no RCRA regulations that regulate the emissions of these operations, including their hazardous air emissions, much less any such regulations that do so effectively. The commenter argued that unless the EPA can show that all aerospace waste storage and handling operations’ air emissions are appropriately regulated by RCRA, at least as stringently as CAA section 112(d) and (f) require, then its refusal to review these standards is arbitrary and capricious.

The commenter argued that the EPA’s stated reason for originally exempting certain waste (that is subject to RCRA) from the CAA waste handling and storage standards conflicts with and does not support a refusal to do a CAA section 112(d)(6) review now. The commenter noted that the EPA states in the current rule preamble that it promulgated the original exemption to try to avoid creating “potential conflicts” with RCRA. However, the commenter argued that the agency’s explanation for the original exemption was actually more nuanced as the EPA stated that it was promulgating the exemption “so that the . . . standards would not require less strict handling and storage of waste than the RCRA requirements.” The commenter argued that there is no indication that it would create “potential conflicts” for the EPA to review the existing CAA standards to see if there are “developments” that it should account for in revised standards, as the CAA requires, to assure stronger standards than currently apply under either CAA or RCRA. The commenter explained that it would be fully

consistent with the originally stated objective of assuring sufficiently strict requirements for the EPA to perform the requisite review now and would allow the EPA to assess and determine whether the CAA standards are up to date and sufficiently stringent. The commenter added that if the EPA performs the requisite CAA review and finds that there are “developments” in waste storage and handling, the EPA will then need to revise the standards to assure that they satisfy CAA section 112(d), including CAA section 112(d)(2) and (3). As part of this analysis, the EPA can ensure the standards are not less stringent than what is required under RCRA, and thus avoid any potential conflicts, according to the commenter.

The commenter argued that the reviews required by CAA sections 112(d)(6) and (f)(2) are both necessary in part to assure that there are appropriate emission standards in place for HAP emitted by aerospace waste storage and handling operations. The commenter stated that the EPA has no authority to exempt major sources from CAA section 112 standards. The commenter noted that the EPA acknowledged that it also may not set no control standards. The commenter added that these must meet a particular stringency test as defined by CAA section 112(d)(2) and (3). The commenter argued that the EPA may not evade these CAA responsibilities by referring to a different statute (*i.e.*, RCRA) that does not include and cannot substitute for the CAA section 112 requirements. The commenter argued that the EPA must ensure that the required CAA section 112(d)(6) review is satisfied and that any HAP emitted from waste storage and handling operations are subject to CAA section 112(d) standards that assure the “maximum achievable” degree of emission reductions.

The commenter noted that it is unclear whether the EPA included waste handling and storage operations in its CAA section 112(f)(2) risk assessment. The commenter argued that the EPA did not state whether it included emissions from waste storage and handling operations in the CAA section 112(f)(2) review, which requires assessing risks to public health and the environment under the existing standards.

Finally, the commenter argued that the EPA may not rely on the original exemption for certain waste operations because that, in turn, is unlawful under CAA section 112(c) and (d). Where Congress intended to allow the EPA to exempt sources from CAA section 112 standards based on the existence of standards under other statutes, it did so

expressly, according to the commenter. See, *e.g.*, CAA section 7412(d)(9) (radionuclide emissions provision). The commenter added that there is no such exemption for aerospace sources, or any part of their emissions.

*Response:* The EPA disagrees with the commenter. The EPA is not exempting these waste handling operations from regulation under CAA section 112. In addition, as described in section IV.B.3 of this preamble, the EPA has completed a technology review for the standards for handling and storage of waste in 40 CFR 63.748 as required by CAA section 112(d)(6). Finally, the EPA has included these waste storage and handling operations in the risk assessment required under CAA section 112(f)(2).

First, the EPA has established standards for waste storage and handling operations under 40 CFR 63.744 and 63.748 that are already not subject to requirements under RCRA.

The provisions under 40 CFR 63.744(a)(1) and (a)(2) require that spent cleaning solvent and spent solvent-laden materials (*e.g.*, cloth or paper applicators) be stored in closed containers. The provisions under 40 CFR 63.744(a)(3) and 40 CFR 63.748 require that all handling and transfer of spent cleaning solvents or HAP containing wastes be done in a manner to minimize spills.

The provisions in 40 CFR 63.741(e) provide that “All wastes that are determined to be hazardous wastes under the Resource Conservation and Recovery Act of 1976 (Pub. L. 94–580) (RCRA) as implemented by 40 CFR parts 260 and 261, and that are subject to RCRA requirements as implemented in 40 CFR parts 262 through 268” are not subject to the requirements of subpart GG. The EPA included this provision so that the standards in subpart GG would not potentially require less stringent handling and storage of waste than the RCRA requirements. At the same time, the EPA made a determination that, for wastes subject to RCRA, no more stringent controls for HAP air emissions were achievable. The hazardous waste storage requirements implemented in the RCRA requirements represented the most stringent controls achievable.

However, the EPA recognizes that the inclusion of this language under 40 CFR 63.741(e) can lead to confusion over the materials and activities that are subject to the requirements of subpart GG, specifically 40 CFR 63.744(a) and 63.748. The EPA believes that some entities could read this provision as exempting from subpart GG all waste materials and activities that are eventually subject to RCRA even before they are placed in RCRA-covered



containers for handling and storage, or before they are handled and stored according to RCRA requirements.

Therefore, the EPA is removing and reserving 40 CFR 63.741(e), and revising 40 CFR 63.744(a) and 63.748 to clarify the requirements for the handling and storage of spent solvents and other wastes relative to subpart GG and RCRA. The EPA is revising 40 CFR 63.744(a) to specify that fresh and spent cleaning solvents, and solvent-laden applicators that are not handled and stored in compliance with 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC) must comply with the requirements in 40 CFR 63.744(a)(1) through (a)(4).

The EPA is revising 40 CFR 63.748 to specify that wastes that contain organic HAP from aerospace surface coating operation wastes from primer, topcoat, specialty coating, chemical milling maskant, and chemical depainting operations that are not handled and stored in compliance with 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC) must be handled and stored as follows:

(1) Conduct the handling and transfer of wastes that contain organic HAP to or from containers, tanks, vats, vessels, or piping systems in such a manner that minimizes spills during handling and transfer; and (2) store all waste that contains organic HAP in closed containers.

The EPA has determined that these changes will ensure that all spent solvents and other wastes that contain organic HAP that are generated from aerospace surface coating operations are handled and stored so that emissions are minimized through the application of MACT controls (*i.e.*, closed containers or closed transfer systems) either through the measures specified in subpart GG or because the spent solvent or waste handling is subject to regulation under RCRA, including the air emission control requirements in 40 CFR part 265, subpart CC. The EPA has included 40 CFR 63.748(b) to clarify the requirements for handling of waste and to ensure uniform handling of organic HAP containing materials and consistency among the requirements of 40 CFR 63.744(a), 63.748, and the regulations implementing RCRA. The EPA is also making this addition in order to be responsive to commenter's concerns that 40 CFR 64.748 did not satisfy the requirements of CAA section 112(d)(2); however, this provision reflects practices that are already employed by facilities to be compliant with 40 CFR 63.744(a) and the RCRA

regulations. The EPA did not intend to exempt RCRA hazardous wastes from all waste storage and handling requirements of the rule. Our intention was for RCRA 40 CFR parts 262 through 268 to regulate the storage of RCRA wastes but also for 63.748 to require the handling and transfer of the waste to or from RCRA-controlled waste containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills and emissions from non-RCRA containers that may hold waste.

The EPA conducted a technology review of the standards for cleaning operations in 40 CFR 63.744, and the results of that review were included in the docket for the proposed rulemaking. In that technology review, the EPA concluded that there were no new developments in practices, processes, and control technologies for cleaning operations. Those controls of air emissions from cleaning operations (*i.e.*, the control of emissions from the handling and storage of spent solvent using closed containers and the housekeeping measures to minimize spills) are equally applicable to the storage and handling of waste. Therefore, the EPA concluded, at proposal, that there are no new developments in practices, processes, and control technologies for the requirements for cleaning operation or the handling and transfer of waste. However, as discussed in section IV.B.3 of this preamble, the EPA has also completed a separate technology review, since proposal, for the storage and handling of waste, and that technology review is in the docket for this rulemaking. The technology review for storage and handling of waste also concluded that there were no new developments in practices, processes, and control technologies for air emissions from waste storage and handling operations.

The EPA has also reviewed the requirements for the handling of waste under RCRA that would be applicable to RCRA wastes generated from aerospace surface coating operations, and the EPA has determined that there were no new developments in practices, processes, and control technologies for the handling of waste from surface coating operations beyond the current requirements in RCRA, including the air emission control requirements in 40 CFR part 265, subpart CC.

With respect to the question of whether the EPA included waste handling and storage in the risk assessment required by CAA section 112(f)(2), the risk assessment included data on emissions associated with waste handling operations. The EPA ICR that

collected information in 2011 requested information from cleaning operations (including emissions from the handling and storage of spent cleaning solvent and solvent-laden materials) and information on emissions from any tanks associated with the cleaning, surface coating, or chemical depainting operations. These data encompass all of the potential sources of HAP emissions that would be associated with waste handling and storage associated with the cleaning operations or with other (non-cleaning) surface coating waste storage and handling. The EPA included these HAP emissions data in the inputs to the air quality modeling and risk assessment completed by the EPA in making the residual risk determination under CAA section 112(f)(2).

#### 4. Rationale for Final Approach

For the reasons provided above in section IV.K.3 of this preamble, we are revising 40 CFR 63.744(a) and 63.748 to clarify the relationship between the requirements for the handling and storage of spent cleaning solvent and waste in subpart GG relative to the regulations implementing RCRA.

#### L. Technical Corrections to the Aerospace NESHAP

##### 1. Technical Corrections Included in the Proposed Rule

The EPA proposed the following technical corrections to subpart GG:

- Revising 40 CFR 63.743(a)(2) to match the section title in 40 CFR 63.5.
- Revising 40 CFR 63.743(a)(8) to correct the reference to paragraph 63.6(i)(12)(iii)(B) by changing the "(1)" to an "(i)."
- Revising 40 CFR 63.744(a) to correct and clarify the format of the reference to 40 CFR 63.744(a)(1) through (4).
- Correcting the ordering of 40 CFR 63.744(a)(3) and (4); currently paragraph (a)(4) is printed before (a)(3).
- Correcting the paragraph numbering for 40 CFR 63.746(b)(4)(ii)(C) by changing paragraph (C) from a lower case to upper case "C."
- Correcting the numbering of the tables in 40 CFR 63.745 to account for the proposed addition of Table 1 to that section to include specialty coating limits.
- Revising 40 CFR 63.749(d)(4) to correct the references to 40 CFR 63.749(d)(4)(i) through (d)(4)(iv) and (e).
- Revising 40 CFR 63.750(g)(6)(i) to remove the letters "VR/FD" that were inadvertently included.

The EPA did not receive any comments on these proposed changes. Therefore, these changes have been incorporated into the final rule as proposed.



## 2. Technical Corrections Included in the Final Rule

The public comments on the proposed rule included requests for the following technical corrections to subpart GG in addition to those discussed directly above:

One commenter recommended that the first full sentence of 40 CFR 63.753(c) should be revised to include specialty coating application operations to clarify that this section applies to specialty coating applications. The EPA agrees with this comment and is making this clarifying change.

One commenter requested that the EPA change the specialty coating category name for “Corrosion Prevention System” in Appendix A to subpart GG to “Corrosion Prevention Compound” to match the naming convention used in Table 1 to subpart GG. The EPA acknowledges this difference within subpart GG, but in the final rule is changing the name used in Table 1 to subpart GG to match the category definition in Appendix A to subpart GG because that definition specifically uses the word “system,” instead of “compound,” in the body of the definition.

One commenter noted that the EPA should state in 40 CFR 63.752(a) that facilities are not required to keep records in accordance with 40 CFR 63.10(d)(5), to be consistent with the removal of SSM requirements in 40 CFR 63.753(a) and Table 1 to subpart GG. The EPA agrees and has added 40 CFR 63.10(d)(5) to the list of paragraphs in 40 CFR 63.10 that do not apply.

One commenter noted that the term “affected unit” should be changed to “affected source” in 40 CFR 63.752(a)(1) to (3) for consistency with other sections of the rule. The EPA agrees and has made this change.

One commenter requested that the EPA clarify in the final rule if 40 CFR 63.10(b)(2)(vii) to (xiv) are applicable to the Aerospace NESHAP. The EPA acknowledges that in the version of Table 1 to subpart GG published in the **Federal Register** (80 FR 8438), the row for 40 CFR 63.10(b)(2)(vii) to (xiv) in the amended Table 1 to subpart GG was inadvertently left blank in the second column, and this should have been marked “Yes” that these requirements still apply. The amendments to Table 1 to subpart GG changed only certain elements in Table 1 and those changes, including those to 40 CFR 63.10(b), were explained in the preamble. Before the amendments, all of 40 CFR 63.10(b) applied to subpart GG. Sub-paragraphs 40 CFR 63.10(b)(2)(vii) to (xiv) are not

being amended, and they still apply to subpart GG.

In the final rule, the EPA is also correcting 40 CFR 63.749(d)(3)(i) and (4)(i) to reference the applicable limits in 63.745(c). At 40 CFR 63.749(d)(3)(i) and (4)(i), the rule referenced only the single primer and topcoat limits that were promulgated in 1995 (60 FR 45948, September 1, 1995) and did not include the primer and topcoat limits that were added in 1998 (63 FR 46526, September 1, 1998) and 2000 (65 FR 76941, December 8, 2000). This change will resolve confusion over the applicable limits being referenced.

The EPA is also correcting several references to “spray cans” and replacing those references with “non-refillable aerosol containers” because that is the term used elsewhere in the rule. Similarly, the EPA is also correcting several references to “painting operations” and replacing them with “surface coating operations.”

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

### A. What are the affected sources?

The EPA estimates, based on the responses to the 2011 ICR, that there are 144 major source facilities that are engaged in aerospace manufacturing and rework surface coating operations. Based on the responses to the 2011 ICR, the EPA estimates that 109 facilities likely would be affected by the final limits for specialty coatings and the requirements to use high-efficiency application equipment for specialty coatings.

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

The EPA estimates that annual HAP emissions from specialty coatings are about 360 tpy; inorganic HAP emissions are about 5 tpy, and the remainder are organic HAP. The estimated emission reductions are 58 tons of HAP, which would be achieved from the regulation of specialty coatings. The EPA estimated that these emission reductions will result from the requirements to use high-efficiency application equipment and also from the application of the HAP content limits to specialty coatings.

### C. What are the cost impacts?

The EPA estimates that the annual cost impacts will be about \$590,000 per year for all affected facilities. The cost impacts are attributed to monitoring and recordkeeping costs for complying with the specialty coating HAP content limits. The cost per facility was estimated based on the number of specialty coatings used at each facility,

as reported in the 2011 ICR. The costs are based on an assumption of 1 hour of technical labor for annual recordkeeping and reporting for each specialty coating used by a facility, plus additional management and clerical hours representing a fraction of the technical labor hours.

The EPA does not have sufficient data from the 2011 ICR to estimate the total cost impacts for specialty coatings having to comply with the proposed high-efficiency application equipment requirement. Because high-efficiency application equipment generates less coating overspray than conventional equipment, the costs of upgrading to new equipment can be offset by cost savings from reduced coating consumption and reduced spray booth filter maintenance. For these reasons, many facilities are likely to have already switched to high-efficiency application methods for specialty coating operations, as they are already required to for primer and topcoat application operations. For example, the average volume of specialty coatings used per facility is 3,000 gallons per year, based on the 2011 ICR data. The estimated purchase cost for a professional quality HVLP spray gun is \$700 for the gun and hoses. If the average facility had to purchase three new spray guns, and the facility was spending an average of \$30 per gallon of spray-applied coating, the facility would need to see a decrease in coating consumption of only 70 gallons per year (about a 3-percent reduction) to recover the initial cost of those three spray guns in 1 year.

The EPA expects some additional potential cost savings from the alternative compliance demonstration provision included in 40 CFR 63.750(c), (e), (k), and (m), but we do not have sufficient data to estimate the cost savings associated with the alternative compliance demonstration. However, for comparison, the estimated cost to perform an analysis of VOC content according to EPA Method 24, based on published vendor data, is about \$575 per sample. The costs for an analysis of HAP content using EPA Method 311 are expected to be at least several times higher. Because the alternative compliance demonstration will allow facilities to use coating manufacturers' documentation of HAP or VOC content based on coating composition, the cost of these coating analyses using EPA Method 24 or 311 would be avoided.

The EPA's cost analyses are documented in the memorandum, *Methodology for Estimating Control Costs for Specialty Coating Operations in the Aerospace Source Category*,

January 2014, in the docket for this rulemaking.

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

Economic impact analyses focus on changes in market prices and output levels. If changes in market prices and output levels in the primary markets are significant enough, impacts on other markets are also examined. Both the magnitude of costs needed to comply with the rule and the distribution of these costs among affected facilities can have a role in determining how the market will change in response to a rule.

This rule applies to the surface coating and related operations at facilities that are major sources and are engaged, either in part or in whole, in the manufacture or rework of commercial, civil or military aerospace vehicles or components. The final rule adds recordkeeping and reporting provisions for specialty coating operations but does not change the compliance costs for operations already being regulated by the existing emission standards. The annual costs were calculated for only the 109 aerospace manufacturing and rework facilities that reported having specialty coating operations.

The estimated annual costs for the final rule are less than \$1 million in the first year and in succeeding years (less than \$850,000 in the first year and less than \$600,000 in succeeding years). These costs are estimated for the 109 facilities that, based on information reported by facilities, appear to have specialty coating operations. Thus, the average cost per facility is less than \$10,000 per year. These costs are small compared to sales for the companies in aerospace manufacturing and reworking. For example, in 2012 the average annual value of shipments (a rough estimate of sales) for firms in the category of "other aircraft parts and auxiliary equipment manufacturing" was almost \$50 million (Source: U.S. Census Bureau, 2012 Economic Census for NAICS 336413 for 2012). In this case, the cost-to-sales estimate will be approximately 0.02 percent of sales for each firm. Costs this small will not have significant market impacts, whether they are absorbed by the firm or passed on as price increases.

The EPA does not know of any firms that are small entities and using specialty coatings that are potentially subject to this final rule. Because no small firms face control costs, there is no significant impact on small entities. Therefore, these amendments will not have a significant impact on a substantial number of small entities.

#### *E. What are the benefits?*

We anticipate this rulemaking will reduce organic and inorganic HAP emissions by approximately 58 tons each year. These avoided emissions will result in improvements in air quality and reduced negative health effects associated with exposure to air pollution of these emissions.

This rulemaking is not an "economically significant regulatory action" under Executive Order 12866 because it is not likely to have an annual effect on the economy of \$100 million or more. Therefore, we have not conducted a Regulatory Impact Analysis (RIA) for this rulemaking or a benefits analysis. While we expect that these avoided emissions will improve air quality and reduce health effects associated with exposure to air pollution associated with these emissions, we have not quantified or monetized the benefits of reducing these emissions for this rulemaking.

#### *F. What analysis of environmental justice did we conduct?*

The EPA is making environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low income populations in the United States. The EPA has established policies regarding the integration of environmental justice into the agency's rulemaking efforts, including recommendations for the consideration and conduct of analyses to evaluate potential environmental justice concerns during the development of a rule.

Following these recommendations, to gain a better understanding of the source category and near source populations, the EPA conducted a proximity analysis for aerospace manufacturing and rework facilities prior to proposal to identify any overrepresentation of minority, low income or indigenous populations. This analysis gives an indication of the prevalence of sub-populations that may be exposed to air pollution from the sources. Further details concerning this analysis are presented in the memorandum titled, *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Aerospace Facilities*, a copy of which is available in the dockets for this action. The results of the analysis were summarized in Table 3 of the proposed rule preamble (see 80 FR 8414, February 17, 2015).

The results of the Aerospace Manufacturing and Rework Facilities baseline risk assessment indicated that emissions from the source category expose approximately 180,000 people to a cancer risk at or above 1-in-1 million and no one was predicted to have a chronic non-cancer TOSHI greater than 1.

The baseline analysis indicated that the percentages of the population exposed to a cancer risk greater than or equal to 1-in-1 million and living within 50 kilometers (km) of the 144 aerospace facilities is higher for minority populations, 36 percent exposed, versus the national minority population average of 28 percent. The specific demographics of the population within 50 km of the facilities indicate potential disparities in certain demographic groups, including the "African American" and "Below the Poverty Level" groups. However, the EPA's baseline analysis also showed that the estimated risks were within the ample margin of safety for all minority populations and low income populations. The EPA has also determined that the changes to this rule, which will reduce emissions of organic and inorganic HAP by 58 tpy, will lead to reduced risks to minority populations and low-income populations compared to the baseline analysis.

#### *G. What analysis of children's environmental health did we conduct?*

As part of the health and risk assessments, as well as the proximity analysis conducted for this action, risks to infants and children were assessed. These analyses are documented in the *Residual Risk Assessment for the Aerospace Manufacturing and Rework Facilities Source Category in Support of the January, 2015 Risk and Technology Review*, and in the *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Aerospace Facilities*, which are available in the docket for this action.

The results of the proximity analysis show that children 17 years and younger as a percentage of the population in close proximity to aerospace manufacturing and rework facilities and with an estimated cancer risk greater than or equal to 1-in-1 million is similar to the percentage of the national population in this age group (26 percent versus 24 percent, respectively). The difference in the absolute number of percentage points of the population 17 years old and younger from the national average indicates a 2 percent over-representation near aerospace manufacturing and rework facilities. Consistent with the EPA's

*Policy on Evaluating Health Risks to Children*,<sup>5</sup> we conducted inhalation and multipathway risk assessments for the Aerospace Manufacturing and Rework Facility source category considering risk to infants and children. Children are exposed to chemicals emitted to the atmosphere via two primary routes: Either directly via inhalation or indirectly via ingestion or dermal contact with various media that have been contaminated with the emitted chemicals. The EPA considers the possibility that children might be more sensitive than adults to toxic chemicals, including chemical carcinogens.

For each carcinogenic HAP included in this assessment that has a potency estimate available, individual and population cancer risks were calculated by multiplying the corresponding lifetime average exposure estimate by the appropriate unit risk estimate (URE). This calculated cancer risk is defined as the upper-bound probability of developing cancer over a 70-year period (*i.e.*, the assumed human lifespan) at that exposure. Because UREs for most HAP are upper-bound estimates, actual risks at a given exposure level may be lower than predicted, and could be zero.

For the EPA's list of carcinogenic HAP that act by a mutagenic mode-of-action, we applied the EPA's *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*.<sup>6</sup> This guidance has the effect of adjusting the URE by factors of 10 (for children aged 0-1), 3 (for children aged 2-15), or 1.6 (for 70 years of exposure beginning at birth), as needed in risk assessments. In this case, this has the effect of increasing the estimated lifetime risks for these pollutants by a factor of 1.6.

With regard to other carcinogenic pollutants for which early-life susceptibility data are lacking, it is the Agency's long-standing science policy position that use of the linear low-dose extrapolation approach (without further adjustment) provides adequate public health conservatism in the absence of chemical-specific data indicating differential early-life susceptibility or when the mode of action is not mutagenicity. The basis for this

methodology is also provided in the 2005 Supplemental Guidance.

In the treatment of POM, the EPA expresses carcinogenic potency for compounds in this group in terms of benzo[a]pyrene equivalence, even though only a small fraction of the total POM emissions may be reported as individual compounds, based on evidence that carcinogenic POM have the same mutagenic mechanism of action as does benzo[a]pyrene. For this reason, the EPA implementation policy<sup>7</sup> recommends applying the *Supplemental Guidance* to all carcinogenic PAHs (a subset of POM) for which risk estimates are based on relative potency. Accordingly, we applied the *Supplemental Guidance* to all unspiciated POM mixtures.

Unlike linear dose-response assessments for cancer, non-cancer health hazards generally are not expressed as a probability of an adverse occurrence. Instead, hazard of non-cancer effects is expressed by comparing an exposure to a reference level as a ratio. The HQ is the estimated exposure divided by a reference level (*e.g.*, the reference concentration, RfC). For a given HAP, exposures at or below the reference level (HQ $\leq$ 1) are not likely to cause adverse health effects. As exposures increase above the reference level (HQs increasingly greater than 1), the potential for adverse effects increases. For exposures predicted to be above the RfC, the risk characterization includes the degree of confidence ascribed to the RfC values for the compound(s) of concern (*i.e.*, high, medium, or low confidence) and discusses the impact of this on possible health interpretations. The reference levels used to determine the HQ's incorporate generally conservative uncertainty factors that account for effects in the most susceptible populations including all life stages (*e.g.*, infants and children).

For our multipathway screening assessment (*i.e.*, ingestion), we assessed risks for adults and various age groups of children. Children's exposures are expected to differ from exposures of adults due to differences in body weights, ingestion rates, dietary preferences and other factors. It is important, therefore, to evaluate the contribution of exposures during childhood to total lifetime risk using appropriate exposure factor values, applying age-dependent adjustment factors (ADAF) as appropriate. The EPA

developed a health-protective exposure scenario whereby the receptor, at various life stages, receives ingestion exposure via both the farm food chain and the fish ingestion pathways.

Based on the analyses described above, the EPA has determined that the changes to this rule, which will reduce emissions of organic and inorganic HAP by 58 tpy, will lead to reduced risk to children and infants.

## VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <http://www2.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 not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review.

### B. Paperwork Reduction Act (PRA)

The information collection activities in this rule have been submitted for approval to the OMB under the PRA. The ICR document that the EPA prepared has been assigned EPA ICR number 1687.10. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

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

Respondents are owners or operators of aerospace manufacturing and rework operations. The rule adds recordkeeping and reporting provisions for specialty coating operations, but does not change the recordkeeping and reporting provisions for any other types of operations. Therefore, of the 144 aerospace manufacturing and rework facilities subject to the Aerospace NESHAP, the annual costs for increased

<sup>5</sup> Policy on Evaluating Health Risks to Children, U.S. Environmental Protection Agency, Washington, DC. May 2014. Available at [http://www2.epa.gov/sites/production/files/2014-05/documents/1995\\_childrens\\_health\\_policy\\_statement.pdf](http://www2.epa.gov/sites/production/files/2014-05/documents/1995_childrens_health_policy_statement.pdf).

<sup>6</sup> Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens. Risk Assessment Forum, U.S. Environmental Protection Agency, Washington, DC. EPA/630/R-03/003F. March 2005. Available at [http://www.epa.gov/raf/publications/pdfs/childrens\\_supplement\\_final.pdf](http://www.epa.gov/raf/publications/pdfs/childrens_supplement_final.pdf).

<sup>7</sup> US EPA, 2005. Science Policy Council Cancer Guidelines Implementation Workgroup Communication I: Memo from W.H. Farland dated 4 October 2005 to Science Policy Council. <http://www.epa.gov/osa/spc/pdfs/canguid1.pdf>

recordkeeping and reporting apply to only the 109 aerospace manufacturing and rework facilities that reported having specialty coating operations. Respondents must keep records of the specialty coatings used at the facility, including the name and VOC content of the coating, the HAP and VOC emitted per gallon of coating and the monthly volume of each coating used. Respondents must also submit semiannual reports of noncompliance. Recordkeeping and reporting of monitored parameters related to air pollution control technologies are required if controls are used to demonstrate compliance with the standards. The reports and records will be used to determine compliance with the standards.

*Respondents/affected entities:* Aerospace manufacturing and rework facilities using specialty coatings.

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

*Estimated number of respondents:* 109 facilities using specialty coatings.

*Frequency of response:* Initially, occasionally and semiannually.

*Total estimated burden:* 6,914 hours (per year) for the responding facilities and 148 hours (per year) for the agency. These are estimates for the average annual burden for the first 3 years after the rule is final. Burden is defined at 5 CFR 1320.3(b).

*Total estimated cost:* \$695,570 (per year), which includes no annualized capital or operation and maintenance costs, for the responding facilities and \$8,740 (per year) for the agency. These are estimates for the average annual cost for the first 3 years after the rule is final.

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. When OMB approves this ICR, the agency will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

#### C. 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. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a

substantial number of small entities if the rule relieves regulatory burden, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. This action will not impose any costs on small entities. Although there are small entities subject to this final rule they are either not using specialty coatings or the specialty coatings they're using are already compliant with the limits in the rule. Therefore, no facilities meeting the Small Business Administration's definition of a small business will incur costs. The results of the economic impact analysis are summarized in section V.D of this preamble and can be found in the memorandum, *Economic Impact Analysis for National Emission Standards for Aerospace Manufacturing and Rework Facilities*. A copy of this memorandum is in the docket for this rulemaking. We have therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

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

This action does not contain an unfunded mandate of \$100 million or more as described in the 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.

#### E. 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.

#### F. 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 the aerospace manufacturing or rework surface coating operations that would be affected by this action. Thus, Executive Order 13175 does not apply to this action.

#### G. 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 the document, *Residual Risk Assessment for the Aerospace Manufacturing and Rework Facilities Source Category in Support of the November 2015 Risk and Technology Review Final Rule*, which is available in the docket for this action, and are discussed in section V.G of this preamble.

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

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

#### I. National Technology Transfer and Advancement Act (NTTAA)

The final rule involves technical standards. The EPA is adding EPA Method 311 in the final rule to measure the organic HAP content of coatings subject to the rule. Consistent with the NTTAA, the EPA conducted a search to identify voluntary consensus standards (VCS) in addition to EPA Method 311. Two VCS were identified that were potentially applicable for EPA Method 311. These were American Society for Testing and Materials (ASTM) D6438 (1999)—Standard Test Method for Acetone, Methyl Acetate, and Parachlorobenzotrifluoride Content of Paints and Coatings by Solid Phase Microextraction-Gas Chromatography, and California Air Resources Board (CARB) Method 310—Determination of Volatile Organic Compounds in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products. The EPA decided not to use either of these VCS because both methods are impractical as alternatives to EPA Method 311 because they target chemicals that are VOC and are not HAP. The search and review results have been documented and are placed in the docket for this rulemaking.

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

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations because it increases the level of environmental protection for all affected populations. A summary of the results of this evaluation are contained in section IV.A of this preamble and

more detailed information is provided in the residual risk document, *Residual Risk Assessment for the Aerospace Manufacturing and Rework Facilities Source Category in Support of the November 2015 Risk and Technology Review Final Rule* in the docket for this rulemaking. A copy of this methodology and the results of the demographic analysis are included in a technical report, *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Aerospace Facilities*, which may be found in the docket for this rulemaking (Docket ID No. EPA-HQ-OAR-2014-0830).

**K. Congressional Review Act (CRA)**

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

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

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

Dated: November 19, 2015.

**Gina McCarthy,**  
Administrator.

For the reasons stated in the preamble, part 63 of title 40, chapter I, of the Code of Federal Regulations is amended 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 GG—National Emission Standards for Aerospace Manufacturing and Rework Facilities**

- 2. Section 63.741 is amended by:
  - a. Revising paragraph (c) introductory text.
  - b. Redesignating paragraphs (c)(4) through (7) as paragraphs (c)(5) through (8).
  - c. Adding paragraph (c)(4).
  - d. Revising newly redesignated paragraph (c)(8).
  - e. Removing and reserving paragraph (e).
  - f. Revising paragraphs (f) and (g).

The revisions and addition read as follows:

**§ 63.741 Applicability and designation of affected sources.**

\* \* \* \* \*

(c) *Affected sources.* The affected sources to which the provisions of this subpart apply are specified in paragraphs (c)(1) through (8) of this section. The activities subject to this subpart are limited to the manufacture or rework of aerospace vehicles or components as defined in this subpart. Where a dispute arises relating to the applicability of this subpart to a specific activity, the owner or operator shall demonstrate whether or not the activity is regulated under this subpart.

\* \* \* \* \*

(4) For organic HAP or VOC emissions, each specialty coating application operation, which is the total of all specialty coating applications at the facility.

\* \* \* \* \*

(8) For inorganic HAP emissions, each spray booth, portable enclosure, or hangar that contains a primer, topcoat, or specialty coating application operation subject to § 63.745(g), or a depainting operation subject to § 63.746(b)(4).

\* \* \* \* \*

(e) [Reserved]

(f) This subpart does not regulate research and development, quality control, and laboratory testing activities, chemical milling, metal finishing, electrodeposition (except for electrodeposition of paints), composites processing (except for cleaning and coating of composite parts or components that become part of an aerospace vehicle or component as well as composite tooling that comes in contact with such composite parts or components prior to cure), electronic parts and assemblies (except for cleaning and topcoating of completed assemblies), manufacture of aircraft transparencies, and wastewater operations at aerospace facilities. These requirements do not apply to the rework of aircraft or aircraft components if the holder of the Federal Aviation Administration (FAA) design approval, or the holder’s licensee, is not actively manufacturing the aircraft or aircraft components. These requirements also do not apply to parts and assemblies not critical to the vehicle’s structural integrity or flight performance. The requirements of this subpart do not apply to primers, topcoats, specialty coatings, chemical milling maskants, strippers, and cleaning solvents that meet the definition of non-HAP material, as determined from manufacturer’s representations, such as in a material safety data sheet or product data sheet, or testing, except that if an owner or operator chooses to

include one or more non-HAP primer, topcoat, specialty coating, or chemical milling maskant in averaging under § 63.743(d), then the recordkeeping requirements of § 63.752(c)(4) shall apply. The requirements of this subpart also do not apply to primers, topcoats, and specialty coatings that meet the definition of “classified national security information” in § 63.742. Additional specific exemptions from regulatory coverage are set forth in paragraphs (e), (g), (h), (i) and (j) of this section and §§ 63.742, 63.744(a)(1), (b), (e), 63.745(a), (f)(3), (g)(4), 63.746(a), (b)(5), 63.747(c)(3), and 63.749(d).

(g) The requirements for primers, topcoats, specialty coatings, and chemical milling maskants in §§ 63.745 and 63.747 do not apply to the use of low-volume coatings in these categories for which the annual total of each separate formulation used at a facility does not exceed 189 l (50 gal), and the combined annual total of all such primers, topcoats, specialty coatings, and chemical milling maskants used at a facility does not exceed 757 l (200 gal). Primers, topcoats, and specialty coatings exempted under paragraph (f) of this section and under § 63.745(f)(3) and (g)(4) are not included in the 50 and 200 gal limits. Chemical milling maskants exempted under § 63.747(c)(3) are also not included in these limits.

\* \* \* \* \*

- 3. Section 63.742 is amended by:
  - a. Adding a definition for “Airless and air-assisted airless spray” in alphabetical order.
  - b. Revising the definition for “Chemical milling maskant”.
  - c. Adding a definition for “Classified National Security Information” in alphabetical order.
  - d. Revising the definition for “Coating”.
  - e. Adding a definition for “Non-HAP material” in alphabetical order.
  - f. Revising the definition for “Softener”.
  - g. Adding a definition for “Spray-applied coating operation” in alphabetical order.
  - h. Revising the definition for “Stripper.”

The additions and revisions read as follows:

**§ 63.742 Definitions.**

\* \* \* \* \*

*Airless and air-assisted airless spray* mean any coating spray application technology that relies solely on the fluid pressure of the coating to create an atomized coating spray pattern and does not apply any atomizing compressed air to the coating before it leaves the spray

gun nozzle. Air-assisted airless spray uses compressed air to shape and distribute the fan of atomized coating, but still uses fluid pressure to create the atomized coating.

\* \* \* \* \*

*Chemical milling maskant* means a coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I or Type II etchant. Type I chemical milling maskants are used with a Type I etchant and Type II chemical milling maskants are used with a Type II etchant. This definition does not include bonding maskants, critical use and line sealer maskants, and seal coat maskants. Additionally, maskants that must be used with a combination of Type I or II etchants and any of the above types of maskants (i.e., bonding, critical use and line sealer, and seal coat) are also not included in this definition. (See also Type I and Type II etchant definitions.)

\* \* \* \* \*

*Classified National Security Information* means information that has been determined pursuant to Executive Order 13526, "Classified National Security Information," December 29, 2009 or any successor order to require protection against unauthorized disclosure and is marked to indicate its classified status when in documentary form. The term "Classified Information" is an alternative term that may be used instead of "Classified National Security Information."

\* \* \* \* \*

*Coating* means a material that is applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances; paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer; or pre-impregnated composite sheets are not considered coatings for the purposes of this subpart. Materials in handheld non-refillable aerosol containers, touch-up markers, and marking pens are also not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

\* \* \* \* \*

*Non-HAP material* means, for the purposes of this subpart, a primer, topcoat, specialty coating, chemical milling maskant, cleaning solvent, or

stripper that contains no more than 0.1 percent by mass of any individual organic HAP that is an Occupational Safety and Health Administration-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP.

\* \* \* \* \*

*Softener* means a liquid that is applied to an aerospace vehicle or component to degrade coatings such as primers, topcoats, and specialty coatings specifically as a preparatory step to subsequent depainting by non-chemical based depainting equipment. Softeners may contain VOC but shall not contain any HAP as determined from MSDS's or manufacturer supplied information.

\* \* \* \* \*

*Spray-applied coating operation* means coatings that are applied using a device that creates an atomized mist of coating and deposits the coating on a substrate. For the purposes of this subpart, spray-applied coatings do not include the following materials or activities:

(1) Coatings applied from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters) in which no more than 3.0 fluid ounces of coating is applied in a single application (i.e., the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component). Under this definition, the use of multiple small paint cups and the refilling of a small paint cup to spray apply more than 3.0 fluid ounces of a coating is a spray-applied coating operation. Under this definition, the use of a paint cup liner in a reusable holder or cup that is designed to hold a liner with a capacity of more than 3.0 fluid ounces is a spray-applied coating operation.

(2) Application of coating using powder coating, hand-held non-refillable aerosol containers, or non-atomizing application technology, including but not limited to paint brushes, rollers, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, marking pens, trowels, spatulas, daubers, rags, sponges, mechanically and/or pneumatic-driven syringes, and inkjet machines.

(3) Application of adhesives, sealants, maskants, caulking materials, and inks.

\* \* \* \* \*

*Stripper* means a liquid that is applied to an aerospace vehicle or component to remove permanent coatings such as

primers, topcoats, and specialty coatings.

\* \* \* \* \*

- 4. Section 63.743 is amended by:
- a. Revising paragraphs (a)(2), (a)(8), and (a)(10).
- b. Removing and reserving paragraph (b).
- c. Revising paragraphs (d)(1), (2), and (3).
- d. Removing and reserving paragraphs (d)(4) and (5).
- e. Adding paragraph (e).

The revisions and addition read as follows:

**§ 63.743 Standards: General.**

(a) \* \* \*

(2) § 63.5, Preconstruction review and notification requirements; and

\* \* \* \* \*

(8) For the purposes of this subpart, each owner or operator is to be provided 30 calendar days to present additional information to the Administrator after he/she is notified of the intended denial of a compliance extension request submitted under either § 63.6(i)(4) or § 63.6(i)(5), rather than 15 calendar days as provided for in § 63.6(i)(12)(iii)(B) and § 63.6(i)(13)(iii)(B).

\* \* \* \* \*

(10) For the purposes of compliance with the requirements of § 63.5(b)(4) of the General Provisions and this subpart, owners or operators of existing primer, topcoat, or specialty coating application operations and depainting operations who construct or reconstruct a spray booth or hangar that does not have the potential to emit 10 tons/yr or more of an individual inorganic HAP or 25 tons/yr or more of all inorganic HAP combined shall only be required to notify the Administrator of such construction or reconstruction on an annual basis. Notification shall be submitted on or before March 1 of each year and shall include the information required in §63.5(b)(4) for each such spray booth or hangar constructed or reconstructed during the prior calendar year, except that such information shall be limited to inorganic HAP. No advance notification or written approval from the Administrator pursuant to §63.5(b)(3) shall be required for the construction or reconstruction of such a spray booth or hangar unless the booth or hangar has the potential to emit 10 tons/yr or more of an individual inorganic HAP or 25 tons/yr or more of all inorganic HAP combined.

(b) [Reserved]

\* \* \* \* \*

(d) \* \* \*

(1) Each owner or operator of a new or existing source shall use any

combination of primers, topcoats (including self-priming topcoats), specialty coatings, Type I chemical milling maskants, or Type II chemical milling maskants such that the monthly volume-weighted average organic HAP and VOC contents of the combination of primers, topcoats, specialty coatings, Type I chemical milling maskants, or Type II chemical milling maskants, as determined in accordance with the applicable procedures set forth in § 63.750, complies with the specified content limits in §§ 63.745(c) and 63.747(c), unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(2) Averaging is allowed only for uncontrolled primers, topcoats (including self-priming topcoats), specialty coatings, Type I chemical milling maskants, or Type II chemical milling maskants.

(3) Averaging is not allowed between specialty coating types defined in Appendix A to this subpart, or between the different types of coatings specified in paragraphs (d)(3)(i) through (vii) of this section.

(i) Primers and topcoats (including self-priming topcoats).

(ii) Type I and Type II chemical milling maskants.

(iii) Primers and chemical milling maskants.

(iv) Topcoats and chemical milling maskants.

(v) Primers and specialty coatings.

(vi) Topcoats and specialty coatings.

(vii) Chemical milling maskants and specialty coatings.

(4) [Reserved]

(5) [Reserved]

\* \* \* \* \*

(e) 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 which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

■ 5. Section 63.744 is amended by revising paragraph (a) introductory text to read as follows:

**§ 63.744 Standards: Cleaning operations.**

(a) *Housekeeping measures.* Each owner or operator of a new or existing cleaning operation subject to this subpart shall comply with the requirements in paragraphs (a)(1) through (4) of this section unless the cleaning solvent used is identified in Table 1 of this section or meets the definition of “Non-HAP material” in 63.742. The requirements of paragraphs (a)(1) through (4) of this section do not apply to spent cleaning solvents, and solvent-laden applicators that are subject to and handled and stored in compliance with 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC).

\* \* \* \* \*

■ 6. Section 63.745 is amended by:

■ a. Revising the section heading and paragraphs (a), (b), and (c) introductory text.

■ b. Redesignating tables 1 through 4 as tables 2 through 5.

■ c. Adding paragraphs (c)(5), (c)(6), and new Table 1.

■ d. Revising paragraphs (e) introductory text, (e)(1), (f) introductory text, (f)(1), (f)(2), (f)(3)(i), (f)(3)(ii), (f)(3)(iv), (f)(3)(v), and (f)(3)(vi).

■ e. Adding paragraphs (f)(3)(vii) and (f)(3)(viii).

■ f. Revising paragraphs (g) introductory text, (g)(1), (g)(2)(i)(A), (g)(2)(i)(C), (g)(2)(ii)(A), (g)(2)(ii)(B), (g)(2)(iii)(B), (g)(2)(iv)(C), (g)(2)(v), (g)(4)(ix), and (g)(4)(x).

■ g. Adding paragraph (g)(4)(xi).

The revisions and additions read as follows:

**§ 63.745 Standards: Primer, topcoat, and specialty coating application operations.**

(a) Each owner or operator of a new or existing primer, topcoat, or specialty coating application operation subject to this subpart shall comply with the requirements specified in paragraph (c) of this section for those coatings that are uncontrolled (no control device is used to reduce organic HAP emissions from the operation), and in paragraph (d) of this section for those coatings that are controlled (organic HAP emissions from the operation are reduced by the use of a control device). Aerospace equipment that is no longer operational, intended for public display, and not easily capable of being moved is exempt from the requirements of this section.

(b) Each owner or operator shall conduct the handling and transfer of primers, topcoats, and specialty coatings to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

(c) *Uncontrolled coatings—organic HAP and VOC content levels.* Each owner or operator shall comply with the organic HAP and VOC content limits specified in paragraphs (c)(1) through (6) of this section for those coatings that are uncontrolled.

\* \* \* \* \*

(5) Organic HAP emissions from specialty coatings shall be limited to an organic HAP content level of no more than the HAP content limit specified in Table 1 of this section for each applicable specialty coating type.

(6) VOC emissions from specialty coatings shall be limited to a VOC content level of no more than the VOC content limit specified in Table 1 of this section for each applicable specialty coating type.

TABLE 1—SPECIALTY COATINGS—HAP AND VOC CONTENT LIMITS

Coating Type	HAP Limit g/L (lb/gallon) <sup>1</sup>	VOC Limit g/L (lb/gallon) <sup>1</sup>
Ablative Coating	600 (5.0)	600 (5.0)
Adhesion Promoter	890 (7.4)	890 (7.4)
Adhesive Bonding Primers: Cured at 250°F or below	850 (7.1)	850 (7.1)
Adhesive Bonding Primers: Cured above 250°F	1030 (8.6)	1030 (8.6)
Commercial Interior Adhesive	760 (6.3)	760 (6.3)
Cyanoacrylate Adhesive	1,020 (8.5)	1,020 (8.5)
Fuel Tank Adhesive	620 (5.2)	620 (5.2)
Nonstructural Adhesive	360 (3.0)	360 (3.0)
Rocket Motor Bonding Adhesive	890 (7.4)	890 (7.4)
Rubber-based Adhesive	850 (7.1)	850 (7.1)



TABLE 1—SPECIALTY COATINGS—HAP AND VOC CONTENT LIMITS—Continued

Coating Type	HAP Limit g/L (lb/gallon) <sup>1</sup>	VOC Limit g/L (lb/gallon) <sup>1</sup>
Structural Autoclavable Adhesive	60 (0.5)	60 (0.5)
Structural Nonautoclavable Adhesive	850 (7.1)	850 (7.1)
Antichafe Coating	660 (5.5)	660 (5.5)
Bearing Coating	620 (5.2)	620 (5.2)
Caulking and Smoothing Compounds	850 (7.1)	850 (7.1)
Chemical Agent-Resistant Coating	550 (4.6)	550 (4.6)
Clear Coating	720 (6.0)	720 (6.0)
Commercial Exterior Aerodynamic Structure Primer	650 (5.4)	650 (5.4)
Compatible Substrate Primer	780 (6.5)	780 (6.5)
Corrosion Prevention System	710 (5.9)	710 (5.9)
Cryogenic Flexible Primer	645 (5.4)	645 (5.4)
Cryoprotective Coating	600 (5.0)	600 (5.0)
Dry Lubricative Material	880 (7.3)	880 (7.3)
Electric or Radiation-Effect Coating	800 (6.7)	800 (6.7)
Electrostatic Discharge and Electromagnetic Interference (EMI) Coating	800 (6.7)	800 (6.7)
Elevated-Temperature Skydrol-Resistant Commercial Primer	740 (6.2)	740 (6.2)
Epoxy Polyamide Topcoat	660 (5.5)	660 (5.5)
Fire-Resistant (interior) Coating	800 (6.7)	800 (6.7)
Flexible Primer	640 (5.3)	640 (5.3)
Flight-Test Coatings: Missile or Single Use Aircraft	420 (3.5)	420 (3.5)
Flight-Test Coatings: All Other	840 (7.0)	840 (7.0)
Fuel-Tank Coating	720 (6.0)	720 (6.0)
High-Temperature Coating	850 (7.1)	850 (7.1)
Insulation Covering	740 (6.2)	740 (6.2)
Intermediate Release Coating	750 (6.3)	750 (6.3)
Lacquer	830 (6.9)	830 (6.9)
Bonding Maskant	1,230 (10.3)	1,230 (10.3)
Critical Use and Line Sealer Maskant	1,020 (8.5)	1,020 (8.5)
Seal Coat Maskant	1,230 (10.3)	1,230 (10.3)
Metallized Epoxy Coating	740 (6.2)	740 (6.2)
Mold Release	780 (6.5)	780 (6.5)
Optical Anti-Reflective Coating	750 (6.3)	750 (6.3)
Part Marking Coating	850 (7.1)	850 (7.1)
Pretreatment Coating	780 (6.5)	780 (6.5)
Rain Erosion-Resistant Coating	850 (7.1)	850 (7.1)
Rocket Motor Nozzle Coating	660 (5.5)	660 (5.5)
Scale Inhibitor	880 (7.3)	880 (7.3)
Screen Print Ink	840 (7.0)	840 (7.0)
Extrudable/Rollable/Brushable Sealant	280 (2.3)	280 (2.3)
Sprayable Sealant	600 (5.0)	600 (5.0)
Silicone Insulation Material	850 (7.1)	850 (7.1)
Solid Film Lubricant	880 (7.3)	880 (7.3)
Specialized Function Coating	890 (7.4)	890 (7.4)
Temporary Protective Coating	320 (2.7)	320 (2.7)
Thermal Control Coating	800 (6.7)	800 (6.7)
Wet Fastener Installation Coating	675 (5.6)	675 (5.6)
Wing Coating	850 (7.1)	850 (7.1)

<sup>1</sup> Coating limits for HAP are expressed in terms of mass (grams or pounds) of HAP per volume (liters or gallons) of coating less water. Coating limits for VOC are expressed in terms of mass (grams or pounds) of VOC per volume (liters or gallons) of coating less water and less exempt solvent.

\* \* \* \* \*

(e) *Compliance methods.* Compliance with the organic HAP and VOC content limits specified in paragraphs (c)(1) through (6) of this section shall be accomplished by using the methods specified in paragraphs (e)(1) and (2) of this section either by themselves or in conjunction with one another.

(1) Use primers, topcoats (including self-priming topcoats), and specialty coatings with HAP and VOC content levels equal to or less than the limits specified in paragraphs (c)(1) through (6) of this section; or

\* \* \* \* \*

(f) *Application equipment.* Except as provided in paragraph (f)(3) of this section, each owner or operator of a new or existing primer, topcoat (including self-priming topcoat), or specialty coating application operation subject to this subpart in which any of the coatings contain organic HAP or VOC shall comply with the requirements specified in paragraphs (f)(1) and (f)(2) of this section.

(1) All spray applied primers, topcoats (including self-priming topcoats), and specialty coatings shall be applied using one or more of the spray application techniques specified

in paragraphs (f)(1)(i) through (f)(1)(v) of this section.

(i) High volume low pressure (HVLP) spraying;

(ii) Electrostatic spray application;

(iii) Airless spray application;

(iv) Air-assisted airless spray application; or

(v) Any other coating spray application methods that achieve emission reductions or a transfer efficiency equivalent to or better than HVLP spray, electrostatic spray, airless spray, or air-assisted airless spray application methods as determined



according to the requirements in §63.750(i).

(2) All coating spray application devices used to apply primers, topcoats (including self-priming topcoats), or specialty coatings shall be operated according to company procedures, local specified operating procedures, and/or the manufacturer's specifications, whichever is most stringent, at all times. Spray application equipment modified by the facility shall maintain a transfer efficiency equivalent to HVLP spray, electrostatic spray, airless spray, or air-assisted airless spray application techniques.

(3) \* \* \*

(i) Any situation that normally requires an extension on the spray gun to properly reach limited access spaces;

(ii) The application of coatings that contain fillers that adversely affect atomization with HVLP spray guns;

\* \* \* \* \*

(iv) The use of airbrush application methods for stenciling, lettering, and other identification markings, and the spray application of no more than 3.0 fluid ounces of coating in a single application (*i.e.*, the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component) from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). Using multiple small paint cups or refilling a small paint cup to apply more than 3.0 fluid ounces under the requirements of this paragraph is prohibited. If a paint cup liner is used in a reusable holder or cup, then the holder or cup must be designed to hold a liner with a capacity of no more than 3.0 fluid ounces. For example, a 3.0 ounce liner cannot be used in a holder that can also be used with a 6.0 ounce liner under the requirements of this paragraph;

(v) The use of hand-held non-refillable aerosol containers;

(vi) Touch-up and repair operations;

(vii) Adhesives, sealants, maskants, caulking materials, and inks; and

(viii) The application of coatings that contain less than 20 grams of VOC per liter of coating.

(g) *Inorganic HAP emissions.* Except as provided in paragraph (g)(4) of this section, each owner or operator of a new or existing primer, topcoat, or specialty coating application operation subject to this subpart in which any of the coatings that are spray-applied (as defined in §63.742) and contain inorganic HAP, shall comply with the applicable requirements in paragraphs (g)(1) through (3) of this section.

(1) Apply these coatings in a booth, hangar, or portable enclosure in which air flow is directed downward onto or across the part or assembly being coated and exhausted through one or more outlets.

(2) \* \* \*

(i) \* \* \*

(A) Before exhausting it to the atmosphere, pass the air stream through a dry particulate filter system certified using the methods described in §63.750(o) to meet or exceed the efficiency data points in Tables 2 and 3 of this section; or

TABLE 2—TWO-STAGE ARRESTOR; LIQUID PHASE CHALLENGE FOR EXISTING SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, µm
>90 .....	>5.7
>50 .....	>4.1
>10 .....	>2.2

TABLE 3—TWO-STAGE ARRESTOR; SOLID PHASE CHALLENGE FOR EXISTING SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, µm
>90 .....	>8.1
>50 .....	>5.0
>10 .....	>2.6

\* \* \* \* \*

(C) Before exhausting it to the atmosphere, pass the air stream through an air pollution control system that meets or exceeds the efficiency data points in Tables 2 and 3 of this section and is approved by the permitting authority.

(ii) \* \* \*

(A) Before exhausting it to the atmosphere, pass the air stream through a dry particulate filter system certified using the methods described in §63.750(o) to meet or exceed the efficiency data points in Tables 4 and 5 of this section; or

TABLE 4—THREE-STAGE ARRESTOR; LIQUID PHASE CHALLENGE FOR NEW SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, µm
>95 .....	>2.0
>80 .....	>1.0
>65 .....	>0.42

TABLE 5—THREE-STAGE ARRESTOR; SOLID PHASE CHALLENGE FOR NEW SOURCES

Filtration efficiency requirement, %	Aerodynamic particle size range, µm
>95 .....	>2.5
>85 .....	>1.1
>75 .....	>0.70

(B) Before exhausting it to the atmosphere, pass the air stream through an air pollution control system that meets or exceeds the efficiency data points in Tables 4 and 5 of this section and is approved by the permitting authority.

(iii) \* \* \*

(B) If the primer, topcoat, or specialty coating contains chromium or cadmium, control shall consist of a HEPA filter system, three-stage filter system, or other control system equivalent to the three-stage filter system as approved by the permitting agency.

(iv) \* \* \*

(C) Continuously monitor the pressure drop across the filter and read and record the pressure drop once per shift, or install an interlock system that will automatically shut down the coating spray application system if the pressure drop exceeds or falls below the filter manufacturer's recommended limit(s); and

\* \* \* \* \*

(v) If a conventional waterwash system is used, continuously monitor the water flow rate and read and record the water flow rate once per shift, or install an interlock system that will automatically shut down the coating spray application system if the water flow rate falls below or exceeds the limit(s) specified by the booth manufacturer or in locally prepared operating procedures. If a pumpless system is used, continuously monitor the booth parameter(s) that indicate performance of the booth per the manufacturer's recommendations to maintain the booth within the acceptable operating efficiency range and read and record the parameters once per shift, or install an interlock system that will automatically shut down the coating spray application system if the booth parameters are outside the parameter range in the manufacturer's recommendations.

\* \* \* \* \*

(4) \* \* \*

(ix) Spray application of primers, topcoats, and specialty coatings in an area identified in a title V permit, where the permitting authority has determined

that it is not technically feasible to spray apply coatings to the parts in a booth;

(x) The use of hand-held non-refillable aerosol containers; and

(xi) The spray application of no more than 3.0 fluid ounces of coating in a single application (*i.e.*, the total volume of a single coating formulation applied during any one day to any one aerospace vehicle or component) from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters). Using multiple small paint cups or refilling a small paint cup to apply more than 3.0 fluid ounces under the requirements of this paragraph is prohibited. If a paint cup liner is used in a reusable holder or cup, then the holder or cup must be designed to hold a liner with a capacity of no more than 3.0 fluid ounces. For example, under the requirements of this paragraph, a 3.0 ounce liner cannot be used in a holder that can also be used with a 6.0 ounce liner.

- 7. Section 63.746 is amended by:
  - a. Revising paragraphs (b)(4)(ii)(A) and (B).
  - b. Redesignating the first paragraph (c) (beginning "Owners or operators of new sources . . .") as paragraph (b)(4)(ii)(C). The revisions read as follows:

**§ 63.746 Standards: Depainting operations.**

(b) \* \* \*

(4) \* \* \*

(ii)(A) For existing sources, pass any air stream removed from the enclosed area or closed-cycle depainting system through a dry particulate filter system, certified using the method described in § 63.750(o) to meet or exceed the efficiency data points in Tables 2 and 3 of § 63.745, through a baghouse, or through a waterwash system before exhausting it to the atmosphere.

(B) For new sources, pass any air stream removed from the enclosed area or closed-cycle depainting system through a dry particulate filter system certified using the method described in § 63.750(o) to meet or exceed the efficiency data points in Tables 4 and 5 of § 63.745 or through a baghouse before exhausting it to the atmosphere.

\* \* \* \* \*

- 8. Section 63.748 is revised to read as follows:

**§ 63.748 Standards: Handling and storage of waste.**

(a) The owner or operator of each facility subject to this subpart that produces a waste that contains organic HAP from aerospace primer, topcoat, specialty coating, chemical milling maskant, or chemical depainting

operations must be handled and stored as specified in paragraph (a)(1) or (a)(2) of this section. The requirements of paragraphs (a)(1) and (a)(2) of this section do not apply to spent wastes that contain organic HAP that are subject to and handled and stored in compliance with 40 CFR parts 262 through 268 (including the air emission control requirements in 40 CFR part 265, subpart CC).

(1) Conduct the handling and transfer of the waste to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

(2) Store all waste that contains organic HAP in closed containers.

(b) [Reserved]

- 9. Section 63.749 is amended by:
  - a. Revising paragraphs (a), (b), the heading for paragraph (d), paragraphs (d)(3) introductory text, (d)(3)(i), (d)(4) introductory text, (d)(4)(i), (d)(4)(iii)(A), (d)(4)(iii)(B), (e) introductory text, and (h)(3) introductory text.
  - b. Adding new paragraph (j).
 The revisions and additions read as follows:

**§ 63.749 Compliance dates and determinations.**

(a) *Compliance dates.* (1) Each owner or operator of an existing affected source subject to this subpart shall comply with the requirements of this subpart by September 1, 1998, except as specified in paragraphs (a)(2) and (3) of this section. Owners or operators of new affected sources subject to this subpart shall comply on the effective date or upon startup, whichever is later. In addition, each owner or operator shall comply with the compliance dates specified in § 63.6(b) and (c) as indicated in Table 1 to this subpart.

(2) Owners or operators of existing primer, topcoat, or specialty coating application operations and depainting operations who construct or reconstruct a spray booth or hangar must comply with the new source requirements for inorganic HAP specified in §§ 63.745(g)(2)(ii) and 63.746(b)(4) for that new spray booth or hangar upon startup. Such sources must still comply with all other existing source requirements by September 1, 1998.

(3) Each owner or operator of a specialty coating application operation that begins construction or reconstruction after February 17, 2015 shall be in compliance with the requirements of this subpart on December 7, 2015 or upon startup, whichever is later. Each owner or operator of a specialty coating application operation that is existing on February 17, 2015 shall be in

compliance with the requirements of this subpart on or before December 7, 2018.

(b) *General.* Each facility subject to this subpart shall be considered in noncompliance if the owner or operator uses a control device, other than one specified in this subpart, that has not been approved by the Administrator, as required by § 63.743(c).

\* \* \* \* \*

(d) *Organic HAP and VOC content levels—primer, topcoat, and specialty coating application operations—* \* \* \*

\* \* \* \* \*

(3) The primer application operation is considered in compliance when the conditions specified in paragraphs (d)(3)(i) through (d)(3)(iv) of this section, as applicable, and in paragraph (e) of this section are met. Failure to meet any one of the conditions identified in these paragraphs shall constitute noncompliance. The compliance demonstration for a primer may be based on the organic HAP content or the VOC content of the primer; demonstrating compliance with both the HAP content limit and the VOC content limit is not required. If a primer contains HAP solvents that are exempt from the definition of VOC in § 63.741 and 40 CFR 51.100, then the HAP content must be used to demonstrate compliance.

(i) For all uncontrolled primers, all values of H<sub>i</sub> and H<sub>a</sub> (as determined using the procedures specified in § 63.750(c) and (d)) are less than or equal to the applicable HAP content limit in § 63.745(c)(1), and all values of G<sub>i</sub> and G<sub>a</sub> (as determined using the procedures specified in § 63.750(e) and (f)) are less than or equal to the applicable VOC content limit in § 63.745(c)(2).

\* \* \* \* \*

(4) The topcoat or specialty coating application operation is considered in compliance when the conditions specified in paragraphs (d)(4)(i) through (d)(4)(iv) of this section, as applicable, and in paragraph (e) of this section are met. Failure to meet any of the conditions identified in these paragraphs shall constitute noncompliance.

(i) The topcoat application operation is considered in compliance when the conditions specified in paragraph (d)(4)(i)(A) of this section are met. The specialty coating application operation is considered in compliance when the conditions specified in paragraph (d)(4)(i)(B) are met. The compliance demonstration for a topcoat or a specialty coating may be based on the organic HAP content or the VOC content of the coating; demonstrating

compliance with both the HAP content limit and the VOC content limit is not required. If a topcoat or specialty coating contains HAP solvents that are exempt from the definition of VOC in § 63.741 and 40 CFR 51.100, then the HAP content must be used to demonstrate compliance.

(A) For all uncontrolled topcoats, all values of  $H_i$  and  $H_a$  (as determined using the procedures specified in § 63.750(c) and (d)) are less than or equal to the applicable HAP content limit in § 63.745(c)(3), and all values of  $G_i$  and  $G_a$  (as determined using the procedures specified in § 63.750(e) and (f)) are less than or equal to the applicable VOC content limit in § 63.745(c)(4).

(B) For all uncontrolled specialty coatings, all values of  $H_i$  and  $H_a$  (as determined using the procedures specified in § 63.750(c) and (d)) are less than or equal to the HAP content limits specified in Table 1 to § 63.745 for the applicable specialty coating types (less water) as applied, and all values of  $G_i$  and  $G_a$  (as determined using the procedures specified in § 63.750(e) and (f)) are less than or equal to the VOC content limits specified in Table 1 to § 63.745 for the applicable specialty coating types (less water and exempt solvents) as applied.

\* \* \* \* \*

(iii)(A) Uses an application technique specified in § 63.745(f)(1)(i) through (f)(1)(iv); or

(B) Uses an alternative application technique, as allowed under § 63.745(f)(1)(v), such that the emissions of both organic HAP and VOC for the implementation period of the alternative application method are less than or equal to the emissions generated using HVLP spray, electrostatic spray, airless spray, or air-assisted airless spray application methods, as determined using the procedures specified in § 63.750(i).

\* \* \* \* \*

(e) *Inorganic HAP emissions—primer, topcoat, and specialty coating application operations.* For each primer, topcoat, or specialty coating application operation that emits inorganic HAP, the operation is in compliance when:

\* \* \* \* \*

(h) \* \* \*

(3) The chemical milling maskant application operation is considered in compliance when the conditions specified in paragraphs (i)(3)(i) and (ii) of this section are met. The compliance demonstration for a chemical milling maskant may be based on the organic HAP content or the VOC content of the chemical milling maskant; demonstrating compliance with both the

HAP content limit and the VOC content limit is not required. If a chemical milling maskant contains HAP solvents that are exempt from the definition of VOC in § 63.741 and 40 CFR 51.100, then the HAP content must be used to demonstrate compliance.

\* \* \* \* \*

(j) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown unless specified by the Administrator or an applicable subpart. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

■ 10. Section 63.750 is amended by revising paragraphs (c) introductory text, (c)(2), (d) introductory text, (d)(1)(iii), (e) introductory text, (f) introductory text, (f)(1)(iii), (i)(1), (i)(2)(i), (i)(2)(iii), (i)(3) introductory text, (k) introductory text, (m) introductory text, and (o) to read as follows:

**§ 63.750 Test methods and procedures.**

\* \* \* \* \*

(c) *Organic HAP content level determination—compliant primers, topcoats, and specialty coatings.* For those uncontrolled primers, topcoats, and specialty coatings complying with the primer, topcoat, or specialty coating organic HAP content limits specified in § 63.745(c) without being averaged, the procedures in paragraphs (c)(1) through (3) of this section shall be used to determine the mass of organic HAP emitted per volume of coating (less water) as applied. As an alternative to the procedures in paragraphs (c)(1) through (3) of this section, an owner or operator may use the coating manufacturer's supplied data to demonstrate that organic HAP emitted per volume of coating (less water), as applied, is less than or equal to the applicable organic HAP limit specified in § 63.745(c). Owners and operators that use the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating may add non-HAP solvent

to those coatings provided that the owner or operator also maintains records of the non-HAP solvent added to the coating.

\* \* \* \* \*

(2) For each coating formulation as applied, determine the organic HAP weight fraction, water weight fraction (if applicable), and density from manufacturer's data. If the value for organic HAP weight fraction cannot be determined using the manufacturer's data, the owner or operator shall use Method 311 of 40 CFR part 63, appendix A, or submit an alternative procedure for determining the value for approval by the Administrator. If the values for water weight fraction (if applicable) and density cannot be determined using the manufacturer's data, the owner or operator shall submit an alternative procedure for determining their values for approval by the Administrator. Recalculation is required only when a change occurs in the coating formulation. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 311 analysis, compliance shall be based on the results from the Method 311 analysis.

\* \* \* \* \*

(d) *Organic HAP content level determination—averaged primers, topcoats, and specialty coatings.* For those uncontrolled primers, topcoats, and specialty coatings that are averaged together in order to comply with the primer, topcoat, and specialty coating organic HAP content limits specified in § 63.745(c), the following procedure shall be used to determine the monthly volume-weighted average mass of organic HAP emitted per volume of coating (less water) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1) \* \* \*

(iii) Manufacturer's formulation data may be used to determine the total organic HAP content of each coating and any ingredients added to the coating prior to its application. If the total organic HAP content cannot be determined using the manufacturer's data, the owner or operator shall use Method 311 of 40 CFR part 63, appendix A for determining the total organic HAP weight fraction, or shall submit an alternative procedure for determining the total organic HAP weight fraction for approval by the Administrator. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 311 analysis,

compliance shall be based on the results from the Method 311 analysis.

\* \* \* \* \*

(e) *VOC content level determination—compliant primers, topcoats, and specialty coatings.* For those uncontrolled primers, topcoats, and specialty coatings complying with the primer, topcoat, and specialty coating VOC content levels specified in § 63.745(c) without being averaged, the procedures in paragraphs (e)(1) through (3) of this section shall be used to determine the mass of VOC emitted per volume of coating (less water and exempt solvents) as applied. As an alternative to the procedures in paragraphs (e)(1) through (3) of this section, an owner or operator may use coating manufacturer's supplied data to demonstrate that VOC emitted per volume of coating (less water and exempt solvents), as applied, is less than or equal to the applicable VOC limit specified in § 63.745(c).

\* \* \* \* \*

(f) *VOC content level determination—averaged primers, topcoats, and specialty coatings.* For those uncontrolled primers, topcoats, and specialty coatings that are averaged within their respective coating category in order to comply with the primer, topcoat, and specialty coating VOC content limits specified in § 63.745(c)(2), (c)(4), and (c)(6), the following procedure shall be used to determine the monthly volume-weighted average mass of VOC emitted per volume of coating (less water and exempt solvents) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1) \* \* \*

(iii) Determine the VOC content of each primer, topcoat, and specialty coating formulation (less water and exempt solvents) as applied using EPA Method 24 or from manufacturer's data.

\* \* \* \* \*

(i)(1) *Alternative application method—primers, topcoats, and specialty coatings.* (i) Each owner or operator seeking to use an alternative application method (as allowed in § 63.745(f)(1)(v)) in complying with the standards for primers and topcoats shall use the procedures specified in paragraphs (i)(2)(i) and (ii) or (i)(2)(iii) of this section to determine the organic HAP and VOC emission levels of the alternative application technique as compared to either HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods.

(ii) For specialty coatings, an owner or operator may use any other coating application method capable of achieving emission reductions or a transfer efficiency equivalent to or better than that provided by HVLP, electrostatic spray, air-assisted airless, or airless application. Any owner or operator using an application method pursuant to this paragraph (i)(2)(ii) shall maintain records demonstrating the transfer efficiency achieved.

(2)(i) For the process or processes for which the alternative application method is to be used, the total organic HAP and VOC emissions shall be determined for an initial 30-day period, the period of time required to apply coating to five completely assembled aircraft, or a time period approved by the permitting agency. During this initial period, only HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods shall be used. The emissions shall be determined based on the volumes, organic HAP contents (less water), and VOC contents (less water and exempt solvents) of the coatings as applied.

\* \* \* \* \*

(iii) Test the proposed application method against either HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods in a laboratory or pilot production area, using parts and coatings representative of the process(es) where the alternative method is to be used. The laboratory test will use the same part configuration(s) and the same number of parts for both the proposed method and the HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods.

\* \* \* \* \*

(3) Each owner or operator seeking to demonstrate that an alternative application method achieves emission reductions equivalent to HVLP, electrostatic spray application methods, air-assisted airless application methods, or airless application methods shall comply with the following:

\* \* \* \* \*

(k) *Organic HAP content level determination—compliant chemical milling maskants.* For those uncontrolled chemical milling maskants complying with the chemical milling maskant organic HAP content limit specified in § 63.747(c)(1) without being averaged, the procedure in paragraph (k)(1) of this section shall be used to determine the mass of organic HAP emitted per unit volume of coating (chemical milling maskant) i as applied

(less water), H<sub>i</sub> (lb/gal). As an alternative to the procedures in paragraph (k)(1) of this section, an owner or operator may use coating manufacturer's supplied data to demonstrate that organic HAP emitted per volume of coating (less water), as applied, is less than or equal to the applicable organic HAP limit specified in § 63.747(c). Owners and operators that use the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating may add non-HAP solvent to those coatings provided that the owner or operator also maintains records of the non-HAP solvent added to the coating.

\* \* \* \* \*

(m) *VOC content level determination—compliant chemical milling maskants.* For those uncontrolled chemical milling maskants complying with the chemical milling maskant VOC content limit specified in § 63.747(c)(2) without being averaged, the procedure specified in paragraphs (m)(1) and (2) of this section shall be used to determine the mass of VOC emitted per volume of chemical milling maskant (less water and exempt solvents) as applied. As an alternative to the procedures in paragraphs (m)(1) and (2) of this section, an owner or operator may use coating manufacturer's supplied data to demonstrate that VOC emitted per volume of coating (less water and exempt solvents), as applied, is less than or equal to the applicable VOC limit specified in § 63.747(c).

\* \* \* \* \*

(o) *Inorganic HAP emissions—dry particulate filter certification requirements.* Dry particulate filters used to comply with §§ 63.745(g)(2) or 63.746(b)(4) must be certified by the filter manufacturer or distributor, paint/depainting booth supplier, and/or the facility owner or operator using method 319 in appendix A of this part, to meet or exceed the efficiency data points found in Tables 2 and 3, or 4 and 5 of § 63.745 for existing or new sources respectively.

■ 11. Section 63.751 is amended by revising paragraph (c) to read as follows:

**§ 63.751 Monitoring requirements.**

\* \* \* \* \*

(c) *Dry particulate filter, HEPA filter, and waterwash systems—primer, topcoat, and specialty coating application operations.* (1) Each owner or operator using a dry particulate filter system to meet the requirements of § 63.745(g)(2) shall, while primer, topcoat, and specialty coating application operations are occurring, continuously monitor the pressure drop

across the system and read and record the pressure drop once per shift following the recordkeeping requirements of § 63.752(d), or install an interlock system as specified in § 63.745(g)(2)(iv)(C).

(2) Each owner or operator using a conventional waterwash system to meet the requirements of § 63.745(g)(2) shall, while primer or topcoat application operations are occurring, continuously monitor the water flow rate through the system and read and record the water flow rate once per shift following the recordkeeping requirements of § 63.752(d), or install an interlock system as specified in § 63.745(g)(2)(v). Each owner or operator using a pumpless waterwash system to meet the requirements of § 63.745(g)(2) shall, while primer, topcoat, and specialty coating application operations are occurring, measure and record the parameter(s) recommended by the booth manufacturer that indicate booth performance once per shift, following the recordkeeping requirements of § 63.752(d), or install an interlock system as specified in § 63.745(g)(2)(v).

\* \* \* \* \*

■ 12. Section 63.752 is amended by revising paragraphs (a), (c) introductory text, (c)(1), (c)(2) introductory text, (c)(4) introductory text, (c)(5) introductory text, (c)(6) introductory text, the heading of paragraph (d), and paragraphs (d)(1) and (f) introductory text to read as follows:

**§ 63.752 Recordkeeping requirements.**

(a) *General.* Each owner or operator of a source subject to this subpart shall fulfill all recordkeeping requirements specified in § 63.10(a), (b), (d), and (f), except § 63.10(b)(2)(i), (iv) and (v). Each owner or operator must also record and maintain according to § 63.10(b)(1) the information specified in paragraph (a)(1) through (3) of this section.

(1) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, and duration of each failure.

(2) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(3) Record actions taken to minimize emissions in accordance with § 63.743(e), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

\* \* \* \* \*

(c) *Primer, topcoat, and specialty coating application operations—organic HAP and VOC.* Each owner or operator required to comply with the organic HAP and VOC content limits specified in § 63.745(c) shall record the information specified in paragraphs (c)(1) through (6) of this section, as appropriate. Each owner and operator using coating manufacturer's supplied data to demonstrate compliance with the applicable organic HAP or VOC limit specified in § 63.745(c) may retain the manufacturer's documentation and annual purchase records in place of the records specified in paragraphs (c)(2) and (3) of this section. Owners and operators using the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating, and adding non-HAP solvent to those coatings, must also maintain records of the non-HAP solvent added to the coating.

(1) The name and VOC content as received and as applied of each primer, topcoat, and specialty coating used at the facility.

(2) For uncontrolled primers, topcoats, and specialty coatings that meet the organic HAP and VOC content limits in § 63.745(c)(1) through (c)(6) without averaging:

\* \* \* \* \*

(4) For primers, topcoats, and specialty coatings complying with the organic HAP or VOC content level by averaging:

\* \* \* \* \*

(5) For primers, topcoats, and specialty coatings that are controlled by a control device other than a carbon adsorber:

\* \* \* \* \*

(6) For primers, topcoats, and specialty coatings that are controlled by a carbon adsorber:

\* \* \* \* \*

(d) *Primer, topcoat, and specialty coating application operations—inorganic HAP emissions.* (1) Each owner or operator complying with § 63.745(g) for the control of inorganic HAP emissions from primer, topcoat, and specialty coating application operations through the use of a dry particulate filter system or a HEPA filter system shall record the pressure drop across the operating system once each shift during which coating operations occur.

\* \* \* \* \*

(f) *Chemical milling maskant application operations.* Each owner or operator seeking to comply with the organic HAP and VOC content limits for the chemical milling maskant application operation, as specified in

§ 63.747(c), or the control system requirements specified in § 63.747(d), shall record the information specified in paragraphs (f)(1) through (4) of this section, as appropriate. Each owner and operator using coating manufacturer's supplied data to demonstrate compliance with the applicable organic HAP or VOC limit specified in § 63.747(c) may retain the manufacturer's documentation and annual purchase records in place of the records specified in paragraph (f)(1) of this section. Owners and operators using the coating manufacturer's supplied data to demonstrate compliance based on the HAP content of the coating, and adding non-HAP solvent to those coatings, must also maintain records of the non-HAP solvent added to the coating.

- 13. Section 63.753 is amended by:
  - a. Revising paragraphs (a)(1) introductory text and (a)(2).
  - b. Adding paragraphs (a)(4) and (5).
  - c. Revising paragraphs (c) introductory text, (c)(1)(i), (c)(1)(ii), and (e)(1).
  - d. Adding paragraph (f).

The revisions and additions read as follows:

**§ 63.753 Reporting requirements.**

(a)(1) Except as provided in paragraphs (a)(2) through (5) of this section, each owner or operator subject to this subpart shall fulfill the requirements contained in § 63.9(a) through (e) and (h) through (j), Notification requirements, and § 63.10(a), (b), (d), and (f), Recordkeeping and reporting requirements, of the General Provisions, 40 CFR part 63, subpart A, and that the initial notification for existing sources required in § 63.9(b)(2) shall be submitted no later than September 1, 1997, or as specified in § 63.9(b)(2). In addition to the requirements of § 63.9(h), the notification of compliance status shall include:

\* \* \* \* \*

(2) The initial notification for existing sources, required in § 63.9(b)(2) shall be submitted no later than September 1, 1997, or as specified in § 63.9(b)(2). For the purposes of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under § 63.9(b)(2), provided the same information is contained in the permit application as required by § 63.9(b)(2), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall

be submitted by the same due dates as those specified for the initial notifications.

\* \* \* \* \*

(4) Each owner or operator subject to this subpart is not required to comply with § 63.10(b)(2)(i), (b)(2)(iv), (b)(2)(v), and (d)(5).

(5) If a source fails to meet an applicable standard specified in §§ 63.744 through 63.748, report such events in the semiannual report:

(i) The number of failures to meet an applicable standard.

(ii) For each instance, report the date, time, and duration of each failure.

(iii) For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

\* \* \* \* \*

(c) *Primer, topcoat, and specialty coating application operations.* Each owner or operator of a primer or topcoat application operation subject to this subpart shall submit the following information:

(1) \* \* \*

(i) For primers, topcoats, and specialty coatings where compliance is not being achieved through the use of averaging or a control device, the HAP or VOC content in manufacturer's supplied data as recorded under § 63.752(c), or each value of  $H_i$  and  $G_i$ , as recorded under § 63.752(c)(2)(i), that exceeds the applicable organic HAP or

VOC content limit specified in § 63.745(c);

(ii) For primers, topcoats, and specialty coatings where compliance is being achieved through the use of averaging, each value of  $H_a$  and  $G_a$ , as recorded under § 63.752(c)(4)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.745(c);

\* \* \* \* \*

(e) \* \* \*

(1) For chemical milling maskants where compliance is not being achieved through the use of averaging or a control device, the HAP or VOC content in manufacturer's supplied data as recorded under § 63.752(f), or each value of  $H_i$  and  $G_i$ , as recorded under § 63.752(f)(1)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.747(c);

\* \* \* \* \*

(f) Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, you must submit the results of the performance tests following the procedure specified in either paragraph (f)(1) or (2) 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 Web site (<http://www.epa.gov/ttn/chief/ert/index.html>) 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) (<http://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 Web site. If you claim that some of the performance test information being submitted 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 Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (f).

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site 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.

■ 14. Revise table 1 to subpart GG of part 63 to read as follows:

TABLE 1 TO SUBPART GG OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART GG

Reference	Applies to affected sources in subpart GG	Comment
63.1(a)(1) .....	Yes.	
63.1(a)(2) .....	Yes.	
63.1(a)(3) .....	Yes.	
63.1(a)(4) .....	Yes.	
63.1(a)(5) .....	No .....	Reserved.
63.1(a)(6) .....	Yes.	
63.1(a)(7) .....	Yes.	
63.1(a)(8) .....	Yes.	
63.1(a)(9) .....	No .....	Reserved.
63.1(a)(10) .....	Yes.	
63.1(a)(11) .....	Yes.	
63.1(a)(12) .....	Yes.	
63.1(a)(13) .....	Yes.	
63.1(a)(14) .....	Yes.	
63.1(b)(1) .....	Yes.	
63.1(b)(2) .....	Yes.	
63.1(b)(3) .....	Yes.	
63.1(c)(1) .....	Yes.	
63.1(c)(2) .....	Yes .....	Subpart GG does not apply to area sources.
63.1(c)(3) .....	No .....	Reserved.
63.1(c)(4) .....	Yes.	
63.1(c)(5) .....	Yes.	
63.1(d) .....	No .....	Reserved.
63.1(e) .....	Yes.	
63.2 .....	Yes.	

TABLE 1 TO SUBPART GG OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART GG—Continued

Reference	Applies to affected sources in subpart GG	Comment
63.3	Yes.	
63.4(a)(1)	Yes.	
63.4(a)(2)	Yes.	
63.4(a)(3)	Yes.	
63.4(a)(4)	No	Reserved.
63.4(a)(5)	Yes.	
63.4(b)	Yes.	
63.4(c)	Yes.	
63.5(a)	Yes.	
63.5(b)(1)	Yes.	
63.5(b)(2)	No	Reserved.
63.5(b)(3)	Yes.	
63.5(b)(4)	Yes.	
63.5(b)(5)	Yes.	
63.5(b)(6)	Yes.	
63.5(c)	No	Reserved.
63.5(d)(1)(i)	Yes.	
63.5(d)(1)(ii)(A)–(H)	Yes.	
63.5(d)(1)(ii)(I)	No	Reserved.
63.5(d)(1)(ii)(J)	Yes.	
63.5(d)(1)(iii)	Yes.	
63.5(d)(2)–(4)	Yes.	
63.5(e)	Yes.	
63.5(f)	Yes.	
63.6(a)	Yes.	
63.6(b)(1)–(5)	Yes	§ 63.749(a) specifies compliance dates for new sources.
63.6(b)(6)	No	Reserved.
63.6(b)(7)	Yes.	
63.6(c)(1)	Yes.	
63.6(c)(2)	No	The standards in subpart GG are promulgated under section 112(d) of the Act.
63.6(c)(3)–(4)	No	Reserved.
63.6(c)(5)	Yes.	
63.6(d)	No	Reserved.
63.6(e)(1)(i)	No	See § 63.743(e) for general duty requirement.
63.6(e)(1)(ii)	No.	
63.6(e)(2)	No	Section reserved.
63.6(e)(3)	No.	
63.6(f)(1)	No.	
63.6(f)(2)–(f)(3)	Yes.	
63.6(g)	Yes.	
63.6(h)	No	The standards in subpart GG do not include opacity standards.
63.6(i)(1)–(3)	Yes.	
63.6(i)(4)(i)(A)	Yes.	
63.6(i)(4)(i)(B)	No	§ 63.743(a)(4) specifies that requests for extension of compliance must be submitted no later than 120 days before an affected source's compliance date.
63.6(i)(4)(ii)	No	The standards in subpart GG are promulgated under section 112(d) of the Act.
63.6(i)(5)–(12)	Yes.	
63.6(i)(13)	Yes.	
63.6(i)(14)	Yes.	
63.6(i)(15)	No	Reserved.
63.6(i)(16)	Yes.	
63.6(j)	Yes.	
63.7(a)(1)	Yes.	
63.7(a)(2)(i)–(vi)	Yes.	
63.7(a)(2)(vii)–(viii)	No	Reserved.
63.7(a)(2)(ix)	Yes.	
63.7(a)(3)	Yes.	
63.7(b)	Yes.	
63.7(c)	Yes.	
63.7(d)	Yes.	
63.7(e)(1)	No	See § 63.749(j).
63.7(e)(2)–(4)	Yes.	
63.7(f)	Yes.	
63.7(g)(1)	Yes.	
63.7(g)(2)	No	Reserved.
63.7(g)(3)	Yes.	
63.7(h)	Yes.	
63.8(a)(1)–(2)	Yes.	

TABLE 1 TO SUBPART GG OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART GG—Continued

Reference	Applies to affected sources in subpart GG	Comment	
63.8(a)(3)	No	Reserved.	
63.8(a)(4)	Yes.		
63.8(b)	Yes.		
63.8(c)(1)(i)	No.		
63.8(c)(1)(ii)	Yes.		
63.8(c)(1)(iii)	No.		
63.8(c)(2)–(d)(2)	Yes.		
63.8(d)(3)	No.		
63.8(e)(1)–(4)	Yes.		
63.8(e)(5)(i)	Yes.		
63.8(e)(5)(ii)	No		The standards in subpart GG do not include opacity standards.
63.8(f)(1)	Yes.		
63.8(f)(2)(i)–(vii)	Yes.		
63.8(f)(2)(viii)	No		The standards in subpart GG do not include opacity standards.
63.8(f)(2)(ix)	Yes.		
63.8(f)(3)–(6)	Yes.		
63.8(g)	Yes.		
63.9(a)	Yes.		
63.9(b)(1)	Yes.		
63.9(b)(2)	Yes	§ 63.753(a)(1) requires submittal of the initial notification at least 1 year prior to the compliance date; § 63.753(a)(2) allows a title V or part 70 permit application to be substituted for the initial notification in certain circumstances.	
63.9(b)(3)	Yes.		
63.9(b)(4)	Yes.		
63.9(b)(5)	Yes.		
63.9(c)	Yes.		
63.9(d)	Yes.		
63.9(e)	Yes.		
63.9(f)	No	The standards in subpart GG do not include opacity standards.	
63.9(g)(1)	No.		
63.9(g)(2)	No	The standards in subpart GG do not include opacity standards.	
63.9(g)(3)	No.		
63.9(h)(1)–(3)	Yes	§ 63.753(a)(1) also specifies additional information to be included in the notification of compliance status.	
63.9(h)(4)	No	Reserved.	
63.9(h)(5)–(6)	Yes.		
63.9(i)	Yes.		
63.9(j)	Yes.		
63.10(a)	Yes.		
63.10(b)(1)	Yes.		
63.10(b)(2)(i)	No.		
63.10(b)(2)(ii)	No	See § 63.752(a) for recordkeeping of (1) date, time, and duration; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.	
63.10(b)(2)(iii)	Yes.		
63.10(b)(2)(iv)–(v)	No.		
63.10(b)(2)(vi)	Yes.		
63.10(b)(2)(vi)(A)–(C)	No	§ 63.10(b)(vii)(A), (B) and (C) do not apply because subpart GG does not require the use of CEMS.	
63.10(b)(2)(vii)–(xiv).	Yes.		
63.10(b)(3)	No.		
63.10(c)(1)	No.		
63.10(c)(2)–(4)	No	Reserved.	
63.10(c)(5)–(6)	No.		
63.10(c)(7)–(8)	Yes.		
63.10(c)(9)	No	Reserved.	
63.10(c)(10)–(13)	No.		
63.10(c)(14)	No	§ 63.8(d) does not apply to this subpart.	
63.10(c)(15)	No.		
63.10(d)(1)–(2)	Yes.		
63.10(d)(3)	No	The standards in subpart GG do not include opacity standards.	
63.10(d)(4)	Yes.		
63.10(d)(5)	No	See § 63.753(a)(5) for malfunction reporting requirements.	
63.10(e)(1)	No.		
63.10(e)(2)(i)	No.		
63.10(e)(2)(ii)	No	The standards in subpart GG do not include opacity standards.	
63.10(e)(3)	No.		
63.10(e)(4)	No	The standards in subpart GG do not include opacity standards.	
63.10(f)	Yes.		



TABLE 1 TO SUBPART GG OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART GG—Continued

Reference	Applies to affected sources in subpart GG	Comment
63.11 .....	Yes.	
63.12 .....	Yes.	
63.13 .....	Yes.	
63.14 .....	Yes.	
63.15 .....	Yes.	
63.16 .....	Yes.	

■ 15. Appendix A to subpart GG of part 63 is amended by revising definitions for “Electric or radiation-effect coating” and “Electrostatic discharge and electromagnetic interference (EMI) coating” to read as follows:

**Appendix A to Subpart GG of Part 63—Specialty Coating Definitions**

\* \* \* \* \*

*Electric or radiation-effect coating*—A coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared, or microwave regions. Uses include, but are not limited to, lightning strike protection, electromagnetic pulse (EMP) protection, and radar avoidance. Coatings that have been designated as

“Classified National Security Information” by the Department of Defense are exempt.

*Electrostatic discharge and electromagnetic interference (EMI) coating*—A coating applied to aerospace vehicles and components to disperse static energy or reduce electromagnetic interference.

\* \* \* \* \*

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