

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Parts 63, 264, and 265**

[FRL-7418-4]

RIN 2060-AG99

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks**AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Proposed rule; amendments.

SUMMARY: This action proposes national emission standards for hazardous air pollutants (NESHAP) for automobile and light-duty truck surface coating operations located at major sources of hazardous air pollutants (HAP). The proposed NESHAP would implement section 112(d) of the Clean Air Act (CAA) by requiring these operations to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). The primary HAP emitted by these operations are toluene, xylene, glycol ethers, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), ethylbenzene, and methanol. The proposed rule would reduce nationwide HAP emissions from these major sources by about 60 percent.

This action also proposes to amend the Air Emission Standards for Equipment Leaks for owners and operators of hazardous waste treatment, storage, and disposal facilities to exempt certain activities covered by the proposed NESHAP from these standards.

DATES: *Comments.* Submit comments on or before February 7, 2003.

Public Hearing. If anyone contacts EPA requesting to speak at a public hearing, they should do so by January 3, 2003. If requested, a public hearing will be held approximately 15 days after the date of publication of this document in the **Federal Register**.

ADDRESSES: *Comments.* By U.S. Postal Service, written comments should be submitted (in duplicate if possible) to: Office of Air and Radiation Docket and Information Center (6102T), Attention Docket Number A-2001-22, U.S. EPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. In person or by courier, deliver comments (in duplicate if possible) to: Office of Air and Radiation Docket and Information Center (6102T), Attention Docket Number A-2001-22, U.S. EPA, 1301

Constitution Avenue, NW., Room B102, Washington, DC 20460. The EPA requests a separate copy also be sent to the contact person listed in **FOR FURTHER INFORMATION CONTACT**.

Public Hearing. If a public hearing is held, it will be held at our Office of Administration auditorium in Research Triangle Park, North Carolina. You should contact Ms. Janet Eck, Coatings and Consumer Products Group, Emission Standards Division (C539-03), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number (919) 541-7946 to request to speak at a public hearing or to find out if a hearing will be held.

Docket. Docket No. A-2001-22 contains supporting information used in developing the proposed standards. The docket is located at the U.S. EPA, 1301 Constitution Avenue, NW, Washington, DC 20460 in Room B108, and may be inspected from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: Mr. David Salman, Coatings and Consumer Products Group, Emission Standards Division (C539-03), U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541-0859; facsimile number (919) 541-5689; electronic mail (e-mail) address: salman.dave@epa.gov.

SUPPLEMENTARY INFORMATION: *Comments.* Comments and data may be submitted by e-mail to: a-and-r-docket@epa.gov. Electronic comments must be submitted as an ASCII file to avoid the use of special characters and encryption problems and will also be accepted on disks in WordPerfect® file format. All comments and data submitted in electronic form must note the docket number: A-2001-22. No confidential business information (CBI) should be submitted by e-mail. Electronic comments may be filed online at many Federal Depository Libraries.

Commenters wishing to submit proprietary information for consideration must clearly distinguish such information from other comments and clearly label it as CBI. Send submissions containing such proprietary information directly to the following address, and not to the public docket, to ensure that proprietary information is not inadvertently placed in the docket: Mr. David Salman, c/o OAQPS Document Control Officer (C404-02), U.S. EPA, Research Triangle Park, NC 27711. The EPA will disclose information identified as CBI only to the extent allowed by the procedures set forth in 40 CFR part 2. If no claim of

confidentiality accompanies a submission when it is received by the EPA, the information may be made available to the public without further notice to the commenter.

Public Hearing. Persons interested in presenting oral testimony or inquiring as to whether a hearing is to be held should contact Ms. Janet Eck, Coatings and Consumer Products Group, Emission Standards Division (C539-03), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number (919) 541-7946. Persons interested in attending the public hearing should also contact Ms. Eck to verify the time, date, and location of the hearing. The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning these proposed emission standards.

Docket. The docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, the contents of the docket will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the CAA.) The regulatory text and other materials related to this rulemaking are available for review in the docket or copies may be mailed on request from the Air and Radiation Docket and Information Center by calling (202) 566-1742. A reasonable fee may be charged for copying docket materials.

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

Regulated Entities. Categories and entities potentially regulated by this action are listed in Table 1.

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

Category	NAICS	Examples of potentially regulated entities
Industry	336111 336112 336211	Automobile and light-duty truck assembly plants, producers of automobile and light-duty truck bodies.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your coating operation is regulated by this action, you should examine the applicability criteria in section § 63.3081 of the proposed rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

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

- I. Background
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 - C. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments
 - D. Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks
 - E. Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
 - F. Unfunded Mandates Reform Act of 1995
 - G. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601, *et seq.*
 - H. Paperwork Reduction Act
 - I. National Technology Transfer and Advancement Act

I. Background

A. What is the Source of Authority For Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The Surface Coating of Automobiles and Light-duty Trucks category of major sources was listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that emit or have the potential to emit equal to, or greater than, 9.1 megagrams per year (Mg/yr) (10 tons per year (tpy)) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP.

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

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

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

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

C. What Are the Health Effects Associated With HAP Emissions From Automobile and Light-Duty Truck Surface Coating?

The major HAP emitted from the automobile and light-duty truck surface coating source category are toluene, xylene, glycol ethers, MEK, MIBK, ethylbenzene, and methanol. These compounds account for over 95 percent of the nationwide HAP emissions from this source category. These pollutants can cause toxic effects following sufficient exposure. Some of the potential toxic effects include effects to the central nervous system, such as fatigue, nausea, tremors, and lack of coordination; adverse effects on the liver, kidneys, and blood; respiratory effects; and developmental effects.

The degree of adverse effects to human health from exposure to HAP can range from mild to severe. The extent and degree to which the human health effects may be experienced are

dependent upon (1) the ambient concentration observed in the area (as influenced by emission rates, meteorological conditions, and terrain); (2) the frequency and duration of exposures; (3) characteristics of exposed individuals (genetics, age, preexisting health conditions, and lifestyle), which vary significantly with the population; and (4) pollutant-specific characteristics (toxicity, half-life in the environment, bioaccumulation, and persistence).

II. Summary of the Proposed Rule

A. What Source Categories Are Affected by This Proposed Rule?

The proposed rule would apply to you if you own or operate an automobile and light-duty truck surface coating operation that is a major source, or is located at a major source, or is part of a major source of HAP emissions. We have defined an automobile and light-duty truck surface coating operation as any facility engaged in the surface coating of new automobile or new light-duty truck bodies or collections of body parts for new automobiles or new light-duty trucks. Coating operations included in this source category include, but are not limited to, the application of electrodeposition primer, primer-surfacer, topcoat (including basecoat and clear coat), final repair, glass bonding primer, glass bonding adhesive, sealer, adhesive, and deadener. The application of blackout and anti-chip materials is included in these coating operations, as is the cleaning and purging of equipment associated with the coating operations. Automobile customizers, body shops, and refinishers are excluded from this source category. Coating of separate, non-body miscellaneous metal parts and separate, non-body plastic parts that are not attached to the vehicle body at the time that the coatings are applied to these parts is excluded from this source category.

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

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

We are also proposing to amend the Resource Conservation and Recovery Act (RCRA) Air Emissions Standards for

Equipment Leaks at 40 CFR parts 264 and 265, subparts BB. The amendments would exempt facilities which would otherwise be subject to requirements of subparts BB if they are subject to the requirements of this proposed NESHAP. Generally, subparts BB of 40 CFR parts 264 and 265 apply to equipment that contains or contacts RCRA hazardous wastes with organic concentrations of at least 10 percent by weight. The regulations apply to large quantity generators as well as to RCRA treatment, storage, and disposal facilities. The regulations were designed to minimize the potential for leaks from pumps, valves, flanges, and connections.

The work practice standards that must be met in this proposed NESHAP in § 63.3094 address coating line purging emissions that would result from solvent purging of coating applicators, and the subsequent collection and transmission of the paint/solvent mixture to reclamation or recovery system. The collection and transmission systems would potentially be subject to the requirements of subparts BB. To avoid duplication, and because any potential for air releases from these sources are relatively small, we are proposing that if such a collection, transmission, and reclamation or recovery system is located at a facility subject to this proposed NESHAP, then it is exempt from the requirements of subparts BB of 40 CFR parts 264 and 265.

As stated elsewhere in this preamble, the HAP emissions from these sources are relatively small in comparison with the coating application, drying, and curing. Measurements made by industry indicate that emissions of VOC would be at least two orders of magnitude less than concentrations that would meet the definition of a leak under subparts BB of 40 CFR parts 264 and 265. Additionally, because the mixture is usually sold to a solvent recycler, the industry has an incentive to capture as much of the solvent as possible, and would therefore want to repair any leaks as quickly as possible.

In addition to the coating operations covered under the proposed NESHAP, some automobile and light-duty truck facilities also have separate, non-body plastic parts coating operations or separate, non-body metal parts coating operations. Purges from these separate, non-body plastic parts coating operations and separate, non-body metal parts coatings operations are analogous to those for automobile and light-duty truck body coatings and would also be exempt from the requirements of subparts BB of 40 CFR parts 264 and 265, if the operations occur in the same

facility as the automobile and light-duty truck body coating. Many of the coatings applied to separate, non-body plastic and separate, non-body metal parts are similar in composition to those applied to automobile and light-duty truck bodies. The purged materials are conveyed to waste tanks in the same fashion as the purged materials from automobile and light-duty truck body coating operations.

B. What Is the Relationship to Other Rules?

Affected sources subject to the proposed rule may also be subject to other rules. Automobile and light-duty truck surface coating operations that began construction, reconstruction, or modification after October 5, 1979 are subject to new source performance standards (NSPS) under 40 CFR part 60, subpart MM. That rule limits emissions of volatile organic compounds (VOC). The EPA has also published control techniques guidelines which establish reasonably available control technologies for limiting VOC emissions from automobile and light-duty truck surface coating operations. Additional VOC emission limitations may also apply to these facilities through conditions incorporated in State operating permits and permits issued under authority of title V of the CAA. Facilities in this subcategory may also be subject to various emission limitations pursuant to State air toxics rules.

An automobile and light-duty truck surface coating facility may be subject to other NESHAP. Rules are presently under development which will limit emissions from coating operations conducted on separate, non-body miscellaneous metal parts and separate, non-body plastic parts and products. Coating of parts (such as automobile bumpers, fascias, brackets, etc.) for subsequent attachment to vehicle bodies would be subject to one or more of these rules, as would collocated aftermarket replacement part coating operations. Facilities may also be subject to other rules relating to collocated equipment such as foundries and boilers.

The capture, transmission, and storage of purge materials from coating equipment may also be subject to the RCRA Air Emission Standards for Equipment Leaks under subparts BB of 40 CFR parts 264 and 265. Those regulations apply to equipment that contains or contacts RCRA hazardous waste with organic concentrations of at least 10 percent by weight. To avoid such possible duplication, we are proposing to exempt such equipment from subparts BB if it is located at a

facility subject to this proposed NESHAP.

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

HAP emission sources. Emissions from coating application, drying, and curing account for most of the HAP emissions from automobile and light-duty truck surface coating operations. The remaining emissions are primarily from cleaning of booths and application equipment and purging of spray equipment. In most cases, HAP emissions from surface preparation, storage, handling, and waste/wastewater operations are relatively small.

Organic HAP. Available emission data collected during the development of the proposed NESHAP show that the primary organic HAP emitted from automobile and light-duty truck surface coating operations are toluene, xylene, glycol ethers, MEK, MIBK, ethylbenzene, and methanol. These compounds account for over 95 percent of the nationwide HAP emissions from this source category.

Inorganic HAP. Based on information reported during the development of the

proposed NESHAP, lead, manganese, and chromium are contained in some of the coatings used by this source category but are not likely to be emitted due to the coating application techniques used. No inorganic HAP were reported in thinners or cleaning materials. Most of the inorganic HAP components remain as solids in the dry coating film on the parts being coated, are collected by the circulating water under the spray booth floor grates, or are deposited on the walls, floor, and grates of the spray booths and other equipment in which they are applied. Therefore, inorganic HAP emission levels are expected to be very low and have not been quantified.

D. What Is the Affected Source?

We define an affected source as a stationary source, group of stationary sources, or part of a stationary source to which a specific emission standard applies. The proposed rule for automobile and light-duty truck surface coating defines the affected source as all of the equipment used to apply coating to new automobile or new light-duty

truck bodies or collections of body parts for new automobiles or new light-duty trucks and to dry or cure the coating after application; all storage containers and mixing vessels in which vehicle body coatings, thinners, and cleaning materials are stored or mixed; all manual and automated equipment and containers used for conveying vehicle body coatings, thinners, and cleaning materials; and all storage containers and all manual and automated equipment and containers used for conveying waste materials generated by an automobile and light-duty truck surface coating operation.

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

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

Emission limits. We are proposing to limit organic HAP emissions from each new or reconstructed automobile and light-duty truck surface coating facility using the emission limits in Table 2 of this preamble.

TABLE 2.—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES (MONTHLY AVERAGE)

Operation	Limit
Combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operation.	0.036 kilogram (kg) (0.30 pound (lb)) organic HAP/liter (HAP/gallon (gal)) of coating solids deposited.
Combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operation (for sources meeting the operating limits of § 63.3092(a) and (b)).	0.060 kg (0.50 lb organic HAP/liter (HAP/gal) of coating solids deposited).
Adhesives and sealers, other than glass bonding adhesive	0.010 kg/kg (lb/lb) of material used.
Deadener	0.010 kg/kg (lb/lb) of material used.

We are proposing to limit organic HAP emissions from each existing automobile and light-duty truck surface coating facility using the emission limits in Table 3 of this preamble.

TABLE 3.—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES (MONTHLY AVERAGE)

Operation	Limit
Combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operation.	0.072 kg (0.60 lb) organic HAP/liter (HAP/gal) of coating deposited.
Combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operation (for sources meeting the operating limits of § 63.3092(a) and (b)).	0.132 kg (1.10 lb) organic HAP/liter (HAP/gal) of coating solids deposited.
Adhesives and sealers other than glass bonding adhesive	0.010 kg/kg (lb/lb) of material used.
Deadener	0.010 lb/lb (kg/kg) of material used.

You would calculate emissions from combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations, or from combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations using the procedures in the proposed rule, which account for variable organic HAP contents of the materials applied in each

month, as well as transfer efficiency and overall efficiencies of any capture systems and control devices in use. You would average organic HAP contents of other materials used on a monthly basis to determine separately those emissions from sealers and adhesives (other than glass bonding adhesive), and deadeners.

Operating limits. If you use an emission capture and control system to reduce emissions, the proposed

operating limits would apply to you. These proposed operating limits are site-specific parameter limits you determine during the initial performance test of the system. For capture systems, you would identify the parameter(s) to monitor and establish the limits and monitoring procedures. For thermal and catalytic oxidizers, you would establish temperature limits. For solvent recovery systems, you would

monitor the outlet concentration or carbon bed temperature and the amount of steam or nitrogen used to desorb the bed. All operating limits must reflect operation of the capture and control system during a performance test that demonstrates achievement of the emission limit during representative operating conditions.

Work practice standards. You would have to develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in and waste materials generated by all coating operations for which emission limits are proposed. The plan would have to specify practices and procedures to ensure that, at a minimum, the following elements are implemented:

- All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.
- The risk of spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.
- Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.
- Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.
- Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

You would also have to develop and implement a work practice plan to minimize organic HAP emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are proposed. The plan would have to specify practices and procedures to ensure that emissions of HAP from the following operations are minimized:

- Vehicle body wiping;
 - Coating line purging;
 - Flushing of coating systems;
 - Cleaning of spray booth grates;
 - Cleaning of spray booth walls;
 - Cleaning of spray booth equipment;
 - Cleaning external spray booth areas;
- and
- Other housekeeping measures (e.g., keeping solvent-laden rags in closed containers.)

General Provisions. The General Provisions (40 CFR part 63, subpart A) also would apply to you as outlined in table 2 of the proposed rule. The

General Provisions codify certain procedures and criteria for all 40 CFR part 63 NESHAP. The General Provisions contain administrative procedures, preconstruction review procedures for new sources, and procedures for conducting compliance-related activities such as notifications, recordkeeping and reporting, performance testing, and monitoring. The proposed rule refers to individual sections of the General Provisions to emphasize key sections that you should be aware of. However, unless specifically overridden in table 2 of the proposed rule, all of the applicable General Provisions requirements would apply to you.

F. What Are the Testing and Initial Compliance Requirements?

Compliance dates. Existing affected sources would have to be in compliance with the final standards no later than 3 years after the effective date. The effective date is the date on which the final rule is published in the **Federal Register**. New and reconstructed sources would have to be in compliance upon startup of the affected source or by the effective date of the final rule, whichever is later.

Compliance with the emission limits is based on a monthly organic HAP emission rate. The initial compliance period, therefore, is the 1-month period beginning on the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period begins on the compliance date and extends through the end of that month plus the following month. We have defined "month" as a calendar month or a pre-specified period of 28 to 35 days to allow for flexibility at sources where data are based on a business accounting period.

Being "in compliance" means that the owner or operator of the affected source meets all the requirements of the proposed rule to achieve the emission limit(s) and operating limits by the end of the initial compliance period, and that the facility is operated in accordance with the approved work practice plans. At the end of the initial compliance period, the owner or operator would use the data and records generated to determine whether or not the affected source is in compliance for that period. If it does not meet the applicable limit(s), then it is out of compliance for the entire initial compliance period.

Emission limits. Compliance with the emission limit for combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass

bonding primer, and glass bonding adhesive, or the emission limit for combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive would be based on mass organic HAP emissions per volume of applied coating solids as calculated monthly using the procedures in the proposed rule. Compliance with the emission limits for adhesives and sealers (other than glass bonding adhesive) and deadener would be based on mass average organic HAP content of materials used each month.

Electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive. Compliance with this emission limit, or if eligible, with the emission limit for combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive, is based on the calculations in the proposed rule. You may also use the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22).

To determine the organic HAP content, the volume solids, and the density of the coatings and thinners, you could rely on manufacturer's data, results from the test methods listed below, or alternative test methods for which you get EPA approval on a case-by-case basis according to the NESHAP General Provisions in 40 CFR 63.7(f). However, if there is any inconsistency between the test results and manufacturer's data, the test results would prevail for compliance and enforcement purposes.

- For organic HAP content, use Method 311 of 40 CFR part 63, appendix A.
- The proposed rule allows you to use nonaqueous volatile matter as a surrogate for organic HAP. If you choose this option, then use Method 24 of 40 CFR part 60, appendix A.
 - For volume fraction of coating solids, use either ASTM Method D2697-86 (1968) or ASTM Method D6093-97.
 - For density, use ASTM Method D1475-98 or information from the supplier or manufacturer of the material. For each emission capture and control system that you use, you would:
 - Conduct an initial performance test to determine the overall control efficiency of the equipment (described below) and to establish operating limits to be achieved on a continuous basis (also described below). The performance test would have to be completed no later than the compliance date. You would also need to schedule it in time to

obtain the results for use in completing your initial compliance determination for the initial compliance period.

The overall control efficiency for a capture and control system would be demonstrated based on emission capture and reduction efficiency. To determine the capture efficiency, you would either verify the presence of a permanent total enclosure using EPA Method 204 of 40 CFR part 51; measure the capture efficiency using either EPA Method 204A through F of 40 CFR part 51 or appendix A of 40 CFR part 63, subpart KK; or use the panel test procedures in ASTM Method D5087-91 (1994), ASTM Method D6266-00a, or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22). If you have a permanent total enclosure and you route all exhaust gases from the enclosure to a control device, then you would assume 100 percent capture. For panel testing, the coatings used may be grouped based on similar appearance characteristics (e.g., solid color or metallic), processing sequences, and dry film thicknesses. One coating from each group can be tested to represent all of the coatings in that group.

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

- Method 1 or 1A for selection of the sampling sites.
 - Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate.
 - Method 3, 3A, or 3B for gas analysis to determine dry molecular weight.
 - Method 4 to determine stack moisture.
 - Method 25 or 25A to determine organic volatile matter concentration.
- Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator, could be used.

You would be required to determine the transfer efficiency for primer-surfacer and topcoat materials using ASTM Method D5066-91 (2001) or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22). These guidelines include provisions for testing representative coatings instead of testing

every coating. You may assume 100 percent transfer efficiency for electrodeposition primer coatings, glass bonding primers, and glass bonding adhesives. For final repair coatings, you may assume 40 percent transfer efficiency for air atomized spray and 55 percent transfer efficiency for electrostatic spray and high volume, low pressure spray.

The monthly emission rate, in terms of mass of organic HAP emitted per volume of coating solids deposited, is determined in accordance with the procedures in the proposed rule. These procedures incorporate the volume, organic HAP content, and volume solids content of each coating applied, as well as the transfer efficiency for the coatings and spray equipment used, and the overall control efficiency for controlled booths or bake ovens and other controlled emission points.

Adhesives and sealers, and deadener. Compliance with emissions limits for adhesives and sealers (other than windshield materials) would be based on the monthly mass average organic HAP content of all materials of this type used during the compliance period. Compliance with emission limits for deadener would be based on the monthly mass average organic HAP content of all materials of this type used during the compliance period.

Operating limits. As mentioned above, you would establish operating limits during the initial performance test of an emission capture and control system. The operating limit is defined as the minimum or maximum (as applicable) value achieved for a control device or process parameter during the most recent performance test that demonstrated compliance with the emission limit.

The proposed rule specifies the parameters to monitor for the types of control systems commonly used in the industry. You would be required to install, calibrate, maintain, and continuously operate all monitoring equipment according to manufacturer's specifications and ensure that the continuous parameter monitoring systems (CPMS) meet the requirements in § 63.3168 of the proposed rule. If you use control devices other than those identified in the proposed rule, you would submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by EPA and is not delegated to States.

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

placed in the firebox or in the duct immediately downstream of the firebox before any substantial heat exchange occurs. The operating limit would be the average temperature measured during the performance test and for each 3-hour period, the average temperature would have to be at or above this limit. For catalytic oxidizers, temperature monitors are placed immediately before and after the catalyst bed. The operating limit would be the average temperature increase across the catalyst bed during the performance test and for each 3-hour period, the average temperature increase would have to be at or above this limit. As an alternative for catalytic oxidizers, you may monitor the temperature immediately before the catalyst bed and develop and implement an inspection and maintenance plan.

If you use a solvent recovery system, then you would either: (1) Continuously monitor the outlet concentration of organic compounds, and the operating limit would be the average organic compound outlet concentration during the performance test (for each 3-hour period, the average concentration would have to be below this limit); or (2) monitor the carbon bed temperature after each regeneration and the total amount of steam or nitrogen used to desorb the bed for each regeneration, in which case the operating limits would be the carbon bed temperature (not to be exceeded) and the amount of steam or nitrogen used for desorption (to be met as a minimum).

If you use a capture and control system to meet the proposed standards, you would have to meet operating limits for the capture system. If the emission capture system is a permanent total enclosure, you would be required to establish that the direction of flow was into the enclosure at all times. In addition, you would have to meet an operating limit of either an average facial velocity of at least 61 meters per minute (200 feet per minute) through all natural draft openings in the enclosure, or a minimum pressure drop across the enclosure of at least 0.018 millimeter water (0.007 inch water), as established by Method 204 of appendix M to 40 CFR part 51.

If the emission capture system was not a permanent total enclosure, you would have to establish either the average volumetric flow rate or the duct static pressure in each duct between the capture device and the add-on control device inlet during the performance test. Either the average volumetric flow rate would have to be maintained above the operating limit for each 3-hour period or the average duct static pressure would

have to be maintained above the operating limit for each 3-hour period.

Work practice standards. You would have to develop and implement two site-specific work practice plans. One plan would address practices to minimize organic HAP emissions from storage, mixing, and conveying of coatings, thinners, and cleaning materials used in operations for which emission limits are established, as well as the waste materials generated from these operations. A second site-specific work practice plan would address practices to minimize emissions from cleaning operations and purging of coating equipment.

The plans would have to address specific types of potential organic HAP emission points and are subject to approval of the Administrator. Deviations from approved work practice plans would be reported semiannually.

G. What Are the Continuous Compliance Provisions?

Emission limits. Continuous compliance with the emission limit for combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive, or if eligible, the emission limit for combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive, would be based on monthly calculations following the procedures in the proposed rule. These procedures take into account the amount of each coating used, the organic HAP and volume solids content of each coating used, the transfer efficiency of each coating application system, and the organic HAP abatement from each capture and control system, and provide for calculating monthly mass organic HAP emissions per volume of coating solids deposited.

Continuous compliance with the emission limits for adhesives and sealers (other than components of the windshield adhesive system), and deadener is based on the monthly average mass organic HAP concentration of all materials applied in each category.

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

If you operate a capture and control system that allows emissions to bypass

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

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

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

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

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

If the continuous control device bypass monitoring shows that the control device is bypassed, then you have deviated from the established operating limits.

Operations during startup, shutdown, and malfunction. When using an emission capture and control system for compliance, you would be required to develop and operate according to a startup, shutdown, and malfunction plan during periods of startup, shutdown, and malfunction of the capture and control system.

Work practice standards. You would be required to operate your facility in accordance with your approved site-specific work practice plans at all times.

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

You are required to comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63, as described in Table 2 of the proposed rule. The General Provisions notification requirements include: initial notifications, notification of performance test if you are complying by using a capture and control system, notification of compliance status, and additional notifications required for affected sources with continuous monitoring systems. The General Provisions also require certain records and periodic reports.

Initial notifications. If the standards apply to you, you must send a notification to the EPA Regional Office in the region where your facility is located and to your State agency at least 1 year before the compliance date for existing sources, and within 120 days after the date of initial startup for new and reconstructed sources, or 120 days after publication of the final rule in the

Federal Register, whichever is later. That report notifies us and your State agency that you have an existing facility that is subject to the proposed standards or that you have constructed a new facility. Thus, it allows you and the permitting authority to plan for compliance activities. You would also need to send a notification of planned construction or reconstruction of a source that would be subject to the proposed rule and apply for approval to construct or reconstruct.

Notification of performance test. If you demonstrate compliance by using a capture and control system for which you do not conduct a monthly liquid-liquid material balance, you would conduct a performance test no later than the compliance date for your affected source. You must notify us (or the delegated State or local agency) at least 60 calendar days before the performance test is scheduled to begin as indicated in the General Provisions for the NESHAP.

Notification of compliance status. You would send us a notification of compliance status within 30 days after the end of the initial compliance demonstration. In the notification, you would certify whether the affected source has complied with the proposed standards; summarize the data and calculations supporting the compliance demonstration; describe how you will determine continuous compliance; and for capture and control systems for which you conduct performance tests, provide the results of the tests. Your notification would also include the measured range of each monitored parameter and the operating limits established during the performance test, and information showing whether the source has achieved its operating limits during the initial compliance period.

Recordkeeping requirements. The proposed rule would require you to collect and keep records according to certain minimum data requirements for the CPMS. Failure to collect and keep the specified minimum data would be a deviation that is separate from any emission limit, operating limit, or work practice requirement. You would be required to keep records of reported information and all other information necessary to document compliance with the proposed rule for 5 years. As required under the General Provisions, records for the 2 most recent years must be kept on-site; the other 3 years' records may be kept off-site. Records pertaining to the design and operation of the control and monitoring equipment must be kept for the life of the equipment.

You would have to keep the following records:

- A current copy of information provided by materials suppliers such as manufacturer's formulation data or test data used to determine organic HAP or VOC content, solids content, and quantity of the coatings and thinners applied.

- All documentation supporting initial notifications and notifications of compliance status.

- The occurrence and duration of each startup, shutdown, or malfunction of the emission capture and control system.

- All maintenance performed on the emission capture and control system.

- Actions taken during startup, shutdown, and malfunction that are different from the procedures specified in your startup, shutdown, and malfunction plan.

- All information necessary to demonstrate conformance with your startup, shutdown, and malfunction plan when the plan procedures are followed.

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

- All required measurements needed to demonstrate compliance with the standards.

- All results of performance tests.
- Data and documentation used to determine capture system efficiency or to support a determination that the system is a permanent total enclosure.
- Required work practice plans and documentation to support compliance with the provisions of these plans.

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

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

Periodic reports. Each reporting year is divided into two semiannual reporting periods. If no deviations occur during a semiannual reporting period, you would submit a semiannual report stating that the affected source has been

in continuous compliance. If deviations occur, you would need to include them in the report as follows:

- Report each deviation from each applicable monthly emission limit.

- Report each deviation from the work practice plan.

- If you are complying by using a thermal oxidizer, report all times when a 3-hour average temperature is below the operating limit.

- If you are complying by using a catalytic oxidizer, report all times when a 3-hour average temperature increase across the catalyst bed is below the operating limit.

- If you are complying by using oxidizers or solvent recovery systems, report all times when the value of the site-specific operating parameter used to monitor the capture system performance was greater than or less than (as appropriate) the operating limit established for the capture system.

- Report other specific information on the periods of time the deviations occurred.

You would also have to send us explanations in each semiannual report if a change occurs that might affect your compliance status.

Other reports. You would be required to submit other reports, including those for periods of startup, shutdown, and malfunction of the emission capture and control system. If the procedures you follow during any startup, shutdown, or malfunction are inconsistent with your plan, you would report those procedures with your semiannual reports in addition to immediate reports required by 40 CFR 63.10(d)(5)(ii).

III. Rationale for Selecting the Proposed Standards

A. How Did We Select the Source Category?

Automobile and light-duty truck surface coating is a source category that is on the list of source categories to be regulated because it contains major sources which emit or have the potential to emit at least 9.7 Mg (10 tons) of any one HAP or at least 22.7 Mg (25 tons) of any combination of HAP annually. The proposed rule would control HAP emissions from both new and existing major sources. Area sources are not being regulated under this proposed rule.

The automobile and light-duty truck surface coating source category as described in the listing includes any facility engaged in the surface coating of new automobile and light-duty truck bodies. Excluded from this source category are automobile customizers, body shops, and refinishers. For

purposes of this proposed rule, we are defining the source category to include the application of electrodeposition primer, primer-surfacer, topcoat (including basecoat and clear coat), final repair, glass bonding primer, glass bonding adhesive, sealer, adhesive, and deadener; all storage containers and mixing vessels in which the above listed coatings, thinners, and cleaning materials associated with the above listed coatings are stored or mixed; all manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and all storage containers and manual and automated equipment used for conveying waste materials generated by a coating operation.

We intend the source category to include facilities for which the surface coating of automobiles and light-duty trucks or automobile and light-duty truck bodies is either their principal activity or is an integral part of an automobile or light-duty truck assembly plant.

The initial listing for this source category included the surface coating of body parts for inclusion in new vehicles. As provided in the initial source category listing notice (57 FR 31576, July 16, 1992):

... the Agency recognizes that these descriptions [in the initial list], like the list itself, may be revised from time to time as better information becomes available. The Agency intends to revise these descriptions as part of the process of establishing standards for each category. Ultimately, a definition of each listed category, or subsequently listed subcategories, will be incorporated in each rule establishing a NESHAP for a category.

Some automobile assembly plants operate separate lines which apply coatings to parts such as bumpers, fascias, and brackets for attachment to separately coated vehicle bodies. However, since most plastic and metal parts that are attached to coated vehicle bodies are produced in separate facilities, we have decided that it makes more sense to regulate these off-line plastic and metal parts coating operations under separate NESHAP for surface coating of plastic parts and products and miscellaneous metal parts because of the substantially different equipment that may be used to coat these parts and for consistency with the NSPS and other air pollution control regulations affecting these coating operations.

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

B. How Did We Select the Regulated Pollutants?

Organic HAP. Available emission data collected during the development of the proposed NESHAP show that the primary organic HAP emitted from automobile and light-duty truck surface coating operations are toluene, xylene, glycol ethers, MEK, MIBK, ethylbenzene and methanol. These compounds account for over 95 percent of this category's nationwide organic HAP emissions. Because coatings used in automobile and light-duty truck surface coating contain many combinations of these and other organic HAP, it is not practical to regulate them individually. Therefore, the proposed standards would regulate emissions of all organic HAP.

Inorganic HAP. Based on information reported during the development of the proposed NESHAP, inorganic HAP contained in the coatings used by this source category include lead, manganese, and chromium compounds. There is limited opportunity for these HAP to be emitted into the ambient air. The lead compounds are present in the electrodeposition primers. This technique would not typically generate air emissions of these compounds which are in the coating solids. Once the coating solids are deposited on the substrate, they remain on the substrate and are not emitted during cure of the coating. Therefore, we conclude that there are limited or no air emissions of lead compounds. Based on information reported during the development of the proposed NESHAP, a small amount of chromium compounds are contained in a few of the coatings used by this source category. Because these inorganic compounds are in the coating solids, they are retained on the substrate to which they are applied, and the only opportunity for them to enter the ambient air is if they are spray-applied. Because of the atomization of the coating during spray application, inorganic compounds become airborne, and they are either deposited on the substrate, collected by the circulating water under the spray booth floor grates, adhere to the surrounding walls and other surfaces in the area, or enter the air and become susceptible to transport to other areas in the building or outside into the ambient air. The data available to EPA indicate that the facilities in this source category that use spray application techniques sometimes apply coatings that contain inorganic HAP compounds, including small quantities of chromium oxide. Overspray, including that containing inorganic HAP, is controlled to an extremely high

level by down-draft impingement in circulating sub-grate water systems.

C. How Did We Select the Affected Source?

In selecting the affected sources for MACT standards, our primary goal is to ensure that MACT is applied to HAP-emitting operations or activities within the source category or subcategory being regulated. The affected source also serves to distinguish where new source MACT applies under a particular standard. Specifically, the General Provisions in subpart A of 40 CFR part 63 define the terms "construction" and "reconstruction" with reference to the term "affected source" (40 CFR 60.2) and provide that new source MACT applies when construction or reconstruction of an affected source occurs (40 CFR 60.5). The collection of equipment and activities evaluated in determining MACT (including the MACT floor) is used in defining the affected source. Some source categories are comprised of HAP-emitting equipment and activities that are independent, have no functional interactions at the process level, and are not related to each other in terms of emission control. In these cases, it is reasonable from a MACT implementation perspective to have separate, narrowly defined affected sources for purposes of focusing MACT applicability. An implication of a narrow definition of affected source is that new source MACT requirements could be triggered more frequently as equipment is replaced (potential "reconstruction") or facilities are expanded (potential "construction") than with a broader definition of affected source, such as some collection of equipment or even the entire facility. This approach is sometimes appropriate based on consideration of emission reductions, cost impacts, and implementation factors.

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

The affected source in the automobile and light-duty truck surface coating source category for which MACT standards are being proposed is the equipment used for electrodeposition primer, primer-surfacer, topcoat

(including basecoat and clear coat), final repair, glass bonding primer, glass bonding adhesive, sealer, adhesive, and deadener; as well as storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored and mixed; all manual and automated equipment for conveying coatings, thinners, and cleaning materials; and all storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation for which an emission limit is proposed. Standards for new sources apply to newly constructed or reconstructed paintshops. All of the organic HAP-emitting coating operations covered by this source category occur within the area of an automobile assembly plant referred to as the paint shop, except for the operations related to glass installation (glass bonding primer, glass bonding adhesive, and pre-installation cleaning) and certain off-line final repair operations. All existing affected sources are located at automobile assembly plants. Other collocated operations at automobile assembly plants may be subject to other NESHAP, including NESHAP currently under development for source categories such as miscellaneous metal parts coating and plastic parts and products coating.

Additional information on the operations at automobile and light-duty truck surface coating facilities that were selected for regulation and other operations that are conducted at automobile assembly plants are included in the docket for the proposed standards.

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

After we identify the specific source categories or subcategories of sources to regulate under section 112 of the CAA, we must develop MACT standards for each category or subcategory. Section 112 establishes a minimum baseline or "floor" for standards. For new sources in a category or subcategory, the standards cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source (section 112(d)(3)). The standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources for which the Administrator has emissions information (or the best-performing five sources for categories or

subcategories with fewer than 30 sources).

Electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive. All 59 facilities in the source category that were in operation in 1997 or 1998 responded to an information collection request (ICR). (Several facilities did not have operating paint shops during this period, but submitted information pertaining to their applications of sealers and adhesives in the assembly process.) Two facilities that presently track their usage and emissions on a line-by-line basis submitted two sets of data each. The responses contained data on the mass of organic HAP emissions per volume of coating solids deposited for each month of a calendar year for electrodeposition primer, primer-surfacer, and topcoat operations; and additional information on final repair, glass bonding primer, and glass bonding adhesive. Final repair and glass bonding materials are functionally tied to the electrodeposition primer, primer-surfacer, and topcoat materials. Final repair materials must be compatible with these other coatings and must provide an exact color and appearance match. Glass bonding materials also must be compatible with these other coatings. The choice of glass bonding materials is highly dependent on the performance characteristics of and interaction with these other coatings. Glass bonds must meet safety requirements issued by the National Highway Transportation Safety Administration. Therefore, we have included final repair, glass bonding primer, and glass bonding adhesive with electrodeposition primer, primer-surfacer, and topcoat.

In most cases, facilities calculated their monthly emissions from primer-surfacer and topcoat operations using a procedure that closely matched the procedure in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22). The calculations took into account the overall efficiency of capture systems and control devices, as well as the transfer efficiency of spray equipment used to apply coatings. In addition, the responses included the mass organic HAP content and the volume solids content of all materials added to the electrodeposition system on a monthly basis. Using the data, we ranked the facilities on the basis of mass of organic HAP emissions per volume of coating solids deposited on an annual basis. Several of the lowest emitting facilities

did not apply full body primer-surfacer during the ICR reporting year (although these facilities as well as all other presently operating facilities do so currently). Since the data from these facilities did not represent the current and anticipated industry practices, we eliminated them from the ranking. We then identified the eight facilities with the lowest-organic-HAP emissions (from electrodeposition, primer-surfacer, and topcoat combined) per volume coating solids deposited. As four of the eight lowest emitting plants used a powder primer-surfacer application system which results in a much thicker film than a liquid application system, we adjusted the solids deposited volumes for the powder systems to reflect liquid primer surfacer thicknesses.

We then identified the month of the reporting year with the peak organic HAP emission rate for the eight facilities with the lowest annual emission rates. Since the proposed rule requires compliance each and every month, an emission limit based on the annual emissions would be unachievable by even the lowest emitting plants approximately 6 months of the year. Variations in colors or vehicles produced and the organic HAP contents of different basecoats and color-keyed primer-surfacers leads to unavoidable fluctuations in organic HAP emission rates, even with the same application equipment and capture and control devices in use. The average organic HAP emission rate for the peak month for the eight lowest emitting plants (as determined on an annual basis) was determined to be the MACT floor for a monthly compliance standard for combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations at existing plants.

We have also proposed a compliance demonstration option based on emissions from combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations for those plants with well controlled electrodeposition operations, or that use very low-organic-HAP materials in their electrodeposition primer operation. This was based on the emission rate from primer-surfacer and topcoat application at the eight lowest emitting plants. (The same plants as those with the lowest emission rates from electrodeposition, primer-surfacer, and topcoat combined.) The emission rate without electrodeposition is comparable to the proposed emission rate with electrodeposition when the lower-organic-HAP emissions per volume of coating solids deposited

which result from including electrodeposition primer are considered.

The floor for new sources was based on the performance of the plant with the lowest annual emission rate. The peak monthly emission rate for this plant for the reporting year would represent the best consistently achievable emission rate for new sources.

Both the existing source MACT floor and the new source MACT floor are based on monthly compliance. All or nearly all automobile and light-duty truck surface coating facilities are subject to compliance with existing rules demonstrated by calculations based on monthly coating use. The ICR responses upon which the MACT determination was made provided data on a monthly basis. A 1-month time period is the shortest compliance period for which data are available to reliably determine MACT.

Adhesives and sealers (other than glass binding adhesive), and deadeners. All facilities in the source category submitted responses to an ICR. The responses contained data on the mass used, and the mass fraction of organic HAP in each of the materials used during the reporting year. The average mass organic HAP content of the materials used throughout the reporting year was determined for each facility. The eight facilities with the lowest-average-organic-HAP content in each group (*i.e.*, adhesives and sealers were considered separately from deadeners) were determined. These facilities used materials with an average mass fraction of organic HAP of less than 0.01 kilogram (kg)/kg (pound (lb))/lb. Because of imprecision in analytical methods at this level, and because the organic HAP reported as zero for some materials at some facilities may have contained traces of organic HAP that were not reported to the facility by the material supplier, the MACT floor mass organic HAP content was determined to be 0.01 kg/kg (lb/lb). This is the lowest level for both new and existing facilities for which compliance could be reliably demonstrated. The proposed rule would require compliance to be demonstrated monthly on the basis of a mass average organic HAP content of the materials used. A shorter compliance time interval would result in excessive recordkeeping with little or no additional reduction in organic HAP emissions. If each and every material used within a particular group of materials meets the monthly average emission limit on an individual basis, then no calculations are required to demonstrate compliance.

Storage, mixing, and conveying of coatings, thinners, and cleaning

materials. The proposed rule would regulate these operations in accordance with a site-specific work practice plan to be developed subject to approval by the Administrator and implemented by each new and existing source. We have no reliable data on the extent of emissions from these operations but believe them to be low.

Cleaning and equipment purging emissions. While the responses to the ICR contain extensive (though in some cases inconsistent) data pertaining to the volumetric use and organic HAP content of cleaning and purging materials, a substantial but unknown fraction of the organic HAP emissions from cleaning and purging operations are captured and controlled. We have no reliable data that would enable us to determine an emission limit for these operations that would represent MACT level control. The proposed rule would regulate these operations in accordance with a site-specific work practice plan to be developed subject to approval by the Administrator and implemented by each new and existing source.

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

The eight facilities with the lowest-organic-HAP emission rates from electrodeposition primer, primer-surfacer, and topcoat application employed a combination of various organic HAP emission limitation techniques, including the use of lower-organic-HAP electrodeposition primer materials, powder primer-surfacer, waterborne basecoats, lower-organic-HAP solvent based primer-surfacers, lower-organic-HAP solvent based basecoats and clearcoats, and improved capture and control systems. However, no single technology or combination of technologies representing a beyond-the-floor MACT was identified, nor did we identify any other available technologies which are not presently in use with the potential to decrease organic HAP emissions beyond-the-floor for either new or existing sources.

We expect that many existing plants will improve capture and control device efficiency as a means of compliance. Control options beyond-the-floor could involve even higher overall efficiencies. Because of the dilute nature of the organic HAP-containing streams available for capture, the cost of such a beyond-the-floor limit would exceed \$40,000 per ton of incremental organic HAP controlled. We are not proposing beyond-the-floor limits at this time. Following a future analysis of residual risk, EPA may propose a beyond-the-floor emission limit, if it is found to be justified.

The facilities which presently use adhesives and sealers, and deadeners with the lowest-mass-organic-HAP contents would not be able to reliably demonstrate compliance with a standard more stringent than the floor level emission limit for these materials due to uncertainty in the analytical methods available and the expected inability or unwillingness of the suppliers of the materials to certify lower-organic-HAP contents.

A wide variety of techniques exist for reducing organic HAP emissions from mixing, storage, and conveying of coatings, thinners, and cleaning materials, and from cleaning and purging of equipment. Because we have no data upon which to establish a numerical organic HAP emission limit for these operations, we have proposed to regulate them through the development and implementation of site-specific work practice plans. The proposed rule identifies a number of potential emission control practices which must be considered, as applicable, in these work plans. Alternative practices which achieve equivalent or improved emission limitations are also permitted under the proposed rule. Because we are unable to reliably estimate the emissions reductions that will be achieved beyond the present baseline emissions from these operations, the work practices requirements may represent beyond-the-floor standards. We believe that the costs of implementing these work practices will be reasonable, as many of the same or equivalent practices would be required for control of VOC emissions under title V air permits.

In lieu of emission standards, section 112(h) of the CAA allows work practice standards or other requirements to be established if: (1) A pollutant cannot be emitted through a conveyance or capture system, or (2) measurement is not practicable due to technological and economic limitations. All automobile and light-duty truck surface coating facilities use some type of work practice

measures to reduce HAP emissions from mixing, storage, conveying, and cleaning and purging as part of their standard operating procedures. They use these measures to decrease solvent usage and minimize exposure to workers. However, data to quantify accurately the emissions reductions achievable by the work practice measures are unavailable, and it is not feasible to measure emissions or enforce a numerical standard for emissions from these operations.

We selected MACT floor level standards for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, glass bonding adhesive, sealer, and adhesive application, and deadener because we were unable to identify any specific technologies that would result in a lower level of emissions. We have proposed a more stringent emission limit for electrodeposition primer, primer-surfacer, and topcoat application for new sources. This more stringent limit is not appropriate for existing sources because of the difficulty, uncertainty, and in some cases, impossibility of retrofitting the best combination of emission limitation techniques to existing facilities, as well as the high cost associated with what would be a beyond-the-floor limit for existing facilities.

We believe the proposed standards for existing sources are achievable because they are presently being achieved by at least six existing sources. We believe the proposed standards for new sources are achievable because they are presently being achieved by the best performing facility in the source category.

We have proposed standards for which compliance would be demonstrated on a monthly basis. The data used to determine MACT for electrodeposition primer, primer-surfacer, and topcoat were based on organic HAP emission limits that were achieved by the best performing plants each month (during which production occurred) during the reporting year for the ICR responses. We used annual data to determine MACT for adhesives and sealers, and deadeners, but believe that monthly compliance is achievable because the standards are based on organic HAP per mass of material, or organic HAP per volume of material and we have no reason to believe that different materials are used at different times throughout the year.

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

Numerical emission standards are required by section 112 of the CAA unless we can justify that it is not

feasible to prescribe or enforce an emission standard, in which case a design, equipment, work practice, or operational standard can be set (section 112(h) of the CAA).

Formats considered. We considered the following formats for allowable organic HAP emissions from the affected source: (1) Mass of organic HAP per unit weight or volume of coating, coating solids, or coating solids deposited; (2) mass of organic HAP per unit of production; (3) organic HAP concentration exiting a control device; (4) organic HAP emissions per unit surface area coated; and (5) percent reduction achieved by a capture system and control device. Each format is defined, and the major advantages and disadvantages are discussed below.

The first type of format considered would express the emission limitation as mass of organic HAP emissions per volume of coating, mass of coating solids, volume of coating solids, or volume of coating solids deposited. An advantage of this type of format is that it relates emissions to production levels, but in a more equitable way than one based on units of production. Also, an affected source would have flexibility in choosing among several compliance options to achieve a standard based on this type of format. This type of standard, when based on mass or volume of coating solids deposited, takes into account the transfer efficiency, *i.e.*, the fraction of coating solids used that actually adhere to the substrate.

A mass of HAP per volume of coating format (*i.e.*, kg HAP/liter (lb HAP/gallon) of coating) either for each coating or as an average across all coatings could be used. While this format is simple to understand and use, its main disadvantage is that it would not credit sources that switch to lower-emitting, higher-solids coatings. For example, a facility using a coating with a solids content of 40 percent and a HAP content of 3 lb/gal will use fewer pounds of HAP than a facility using a coating with a solids content of 20 percent and a HAP content of 2 lb/gal because the first facility will use 50 percent less coating than the second. A comparison of the emission potential of two coatings using a mass HAP per volume coating format cannot be made.

An alternative format is a mass HAP per volume of coating solids (*i.e.*, kg HAP/liter (lb HAP/gal) of coating solids). This format would adequately credit sources that converted conventional higher-HAP-solvent coatings to higher-solids coatings. The same is true for a format of mass HAP/mass of solids (*i.e.*, kg HAP/kg (lb HAP/

lb) solids). For example, if a source were to increase the solids content of a coating and thereby decrease the quantity of coating used, either of these formats would properly credit the affected source's emissions reductions. However, there are potential drawbacks to the mass HAP/mass solids format. Such a standard does not take into account the sometimes considerable differences in coating solids densities. Either the mass HAP/mass solid or the mass HAP/volume solid formats can be restated to consider applied solids rather than solids contained in the coating to provide credit for application techniques with higher transfer efficiencies.

The second format considered is mass of organic HAP emissions per unit of production (*e.g.*, kg HAP per vehicle coated). Its major disadvantage is that the surface area of automobiles and light-duty trucks varies greatly.

The third format considered, a limit on the concentration of organic HAP in the exhaust from the control device would only apply to sources that use add-on control devices. This format for a standard is the easiest to enforce because direct emissions measurements can be made using Method 25 or 25A. However, the concentration of organic HAP emitted from the control device does not reflect total emissions because of the possibility of uncaptured emissions from the coating operation, nor does it limit total emissions because of the effect of varying the exhaust flow rates (*i.e.*, increasing dilution air). For example, two similar coating operations could produce the same amount of organic HAP yet have different inlet concentrations to the control device because of variations in capture of emissions from the coating operation and because of varying oven airflow rates. A standard based on outlet concentration would require the line with the higher concentration (lower airflow rate) to control more organic HAP emissions than the line with the lower inlet concentration. Because management of airflow rates is generally under the control of the operator, this format would not reflect the application of MACT for the coating operation. Furthermore, this format would limit the compliance options available to sources because it would not accommodate the use of either low-HAP content coatings and other materials, or the use of a combination of capture and control systems in conjunction with reduced-HAP coatings and other materials.

The fourth format, organic HAP emissions per unit surface area coated, provides flexibility in the selection of

coating materials, the streams to be controlled, and the approach to capture and control. We requested surface area data for vehicles produced during the ICR reporting year and received data of this type from a number of respondents. The data that we received were incomplete, and the methods of estimating vehicle surface areas varied widely. In many cases, computer generated design drawings were analyzed to estimate surface areas. The algorithms used to make the estimates are unlikely to be consistent from manufacturer to manufacturer. While a standard in this format has some advantages, it would be difficult to establish MACT because of the inconsistent basis of the estimates.

The fifth format, percent reduction, would only apply to sources that use add-on control devices. This format is often the best choice when capture and control systems are widely used in the source category, and the achievable percent reduction over a wide range of operating conditions is predictable. The advantages of this format are that it would reflect MACT at all facilities, and the facilities would be allowed flexibility in the method selected for achieving the percent reduction. A disadvantage of the percent reduction format is that it does not credit improvements in the materials or processes. For example, reduction in the organic HAP content of a coating or in the amount of coating applied per unit of substrate manufactured would not be credited toward compliance. This might discourage development of low- or non-HAP coatings. Similar to the concentration format for a standard, this format also would not accommodate the use of either low-HAP content coatings and other materials or a combination of capture and control systems in conjunction with reduced-HAP coatings and other materials as a means of compliance.

Format selected. We selected mass of HAP emitted per volume of coating solids deposited as the format for the proposed emission limit for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive. All automobile and light-duty truck surface coating facilities presently calculate VOC emissions from primer-surfacer and topcoat application in this format and have recordkeeping systems in place to track coating usage, mass fraction of VOC, volume fraction of solids, and transfer efficiencies. Responses to the ICR were, for the most part, based on adaptations of these systems to calculate organic HAP emissions from both topcoat and primer

surfacers application. Only minor adjustments would be necessary to include electrodeposition coatings, as only two to four different materials are used for this process, and the transfer efficiency is essentially 100 percent. Such a format would be consistent with the information upon which MACT determination was based. This format gives credit for the use of low- or zero-organic-HAP coatings or high solids coatings in one or more application processes, as well as improved application techniques which result in higher transfer efficiencies for primer-surfacer and topcoat. This format would allow sources flexibility to use a combination of emission capture and control systems as well as low-HAP content coatings and other materials.

We selected mass of organic HAP per mass of coating as the format for the proposed standards for adhesives and sealers, and deadeners. These materials are applied with nearly 100 percent transfer efficiency in most cases and emissions from these materials are rarely, if ever, directed to add-on control devices.

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

We have proposed a compliance procedure for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive. The procedure takes into account the volume of each coating used, its mass organic HAP content, volume solids content, and density, as well as the transfer efficiency and the overall efficiency of any add-on control devices. The procedure is modeled after the procedure in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22), presently used to demonstrate compliance with VOC emission limits for topcoat and primer-surfacer application at automobile and light-duty truck surface coating facilities.

We have proposed a monthly average mass organic HAP content determination to demonstrate compliance with the emission limits for adhesives and sealers, and deadeners.

Method 311 of 40 CFR part 63, appendix A, is the method developed by EPA for determining the HAP content of coatings and has been used in previous surface coating NESHAP. We have not identified any other methods that provide advantages over Method 311 for use in the proposed rule.

Method 24 of 40 CFR part 60, appendix A, is the method developed by

EPA for determining the VOC content of coatings and can be used if you choose to determine the nonaqueous volatile matter content as a surrogate for organic HAP. In past rules, VOC emission control measures have been implemented in the coatings industry with Method 24 as the compliance method. We have not identified any other methods that provide advantages over Method 24 for use in the proposed rule.

The proposed requirements for determining volume solids would allow you to choose between calculating the value using either ASTM Method D2697-86 (1988) or ASTM Method D6093-97.

You may use information provided by your coating supplier instead of conducting the HAP, solids, and density determinations yourself. The above specified test methods will take precedence if there is any discrepancy between the result of the methods and information provided by your suppliers.

Capture and control systems. If you use an emission capture and control system, you would be required to conduct an initial performance test of the system to determine its overall control efficiency. The overall control efficiency would be combined with the monthly HAP content of the coatings and other materials used in the affected source to derive the monthly HAP emission rate to demonstrate compliance with the standard for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive.

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

Work practices. In the initial compliance report, you would certify that you have met the proposed work practice standards during the initial compliance period. You would also keep the records required to document your actions. These are minimal compliance requirements to ensure you are meeting the standards.

G. How Did We Select the Continuous Compliance Requirements?

To ensure continuous compliance with the proposed emission limits and operating limits, the proposed rule would require continuous parameter

monitoring of capture systems, add-on control devices, and recordkeeping. We selected the following requirements based on: reasonable cost, ease of execution, and usefulness of the resulting data to both the owners or operators and EPA for ensuring continuous compliance with the emission limits and operating limits.

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

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

To demonstrate continuous compliance with the monthly emission limits, you would also need records of the quantity of coatings and other materials used and the data and calculations supporting your determination of their HAP content.

To demonstrate continuous compliance with the work practice standards, you would keep the associated records specified in your work practice plan, as required by the proposed rule, and comply with the associated reporting requirements.

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

You would be required to comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63, as described in Table 2 of the proposed rule. We evaluated the General Provisions requirements and included those we determined to be the minimum notification, reporting, and recordkeeping necessary to ensure compliance with, and effective enforcement of, the proposed standards.

I. How Did We Select the Compliance Date?

The proposed rule allows existing sources 3 years from the effective date of the final standards to demonstrate

compliance. This is the maximum compliance period permitted by the CAA. We believe that 3 years may be necessary for some affected sources to design, install, and test improved capture systems and control devices. Sources that adopt reformulated lower HAP coatings or powder coatings may also need 3 years to specify, adjust application equipment, and modify existing coating processes. New or reconstructed affected sources must comply immediately upon startup or the effective date of the proposed rule, whichever is later as required by the CAA.

IV. Summary of Environmental, Energy, and Economic Impacts

A. What Are the Air Quality Impacts?

The proposed rule would decrease HAP emissions from automobile and light-duty truck surface coating facilities from an estimated 10,000 tpy to 4,000 tpy. This represents a decrease of 6,000 tpy or 60 percent. The proposed rule would also decrease VOC by approximately 12,000 to 18,000 tpy. These values were calculated in comparison to baseline emissions reported to EPA by individual facilities for 1996 or 1997.

B. What Are the Cost Impacts?

The estimated total capital costs of compliance, including the costs of monitors, is \$670 million. This will result in an additional annualized capital cost of \$75 million compared to a baseline total capital expenditure of \$4 to \$5 billion per year.

The projected total annual costs, including capital recovery, operating costs, monitoring, recordkeeping, and reporting is \$154 million per year. This represents less than one-tenth of 1 percent of the baseline industry revenues of \$290 billion and just over 1.0 percent of baseline industry pre-tax earnings of \$14 billion.

The cost analysis assumed that each existing facility would use, in the order presented, as many of the following four steps as necessary to meet the proposed emission limit. First, if needed, facilities that did not already control their electrodeposition primer bake oven exhaust would install and operate such control at an average cost of \$8,200 per ton of HAP controlled. Next, if needed, facilities would reduce the HAP-to-VOC ratio of their primer-surfacer and topcoat materials to 0.3 to 1.0 at an average cost of \$540 per ton of HAP controlled. Finally, if needed, facilities would control the necessary amount of primer-surfacer and topcoat spray booth exhaust at an average cost of \$40,000

per ton of HAP controlled. For all four steps combined, the average cost is about \$25,000 per ton of HAP controlled.

New facilities and new paint shops would incur little additional cost to meet the proposed emission limit. These facilities would already include bake oven controls and partial spray booth exhaust controls for VOC control purposes. New facilities might need to make some downward adjustment in the HAP content of their materials to meet the proposed emission limit.

C. What Are the Economic Impacts?

The EPA prepared an economic impact analysis to evaluate the primary and secondary impacts the proposed rule would have on the producers and consumers of automobiles and light-duty trucks, and society as a whole. The analysis was conducted to determine the economic impacts associated with the proposed rule at both the market and industry levels. Overall, the analysis indicates a minimal change in vehicle prices and production quantities.

Based on the estimated compliance costs associated with the proposed rule and the predicted changes in prices and production in the affected industry, the estimated annual social costs of the proposed rule is projected to be \$161 million (1999 dollars). The social costs take into account changes in behavior by producers and consumers due to the imposition of compliance costs from the proposed rule. For this reason the estimated annual social costs differ from the estimated annual engineering costs of \$154 million. Producers, in aggregate, are expected to bear \$152 million annually in costs while the consumers are expected to incur the remaining \$10 million in social costs associated with the proposed rule.

The economic model projects an aggregate price increase for the modeled vehicle classes of automobiles and light-duty trucks to be less than 1/100th of 1 percent as a result of the proposed standards. This represents at most an increase in price of \$3.00 per vehicle. The model also projects that directly affected producers would reduce total production by approximately 1,400 vehicles per year. This represents approximately 0.01 percent of the 12.7 million vehicles produced by the potentially affected plants in 1999, the baseline year of analysis.

In terms of industry impacts, the automobile and light-duty truck manufacturers are projected to experience a decrease in pre-tax earnings of about 1 percent or \$152 million. In comparison, total pre-tax

earnings for the potentially affected plants included in the analysis exceeded \$14 billion in 1999. The reduction in pre-tax earnings of 1 percent reflects an increase in production costs and a decline in revenues earned from a reduction in the quantity of vehicles sold. Through the market and industry impacts described above, the proposed rule would lead to a redistribution of profits within the industry. Some facilities (28 percent) are projected to experience a profit increase with the proposed rule; however, the majority (72 percent) that continue operating are projected to lose profits. No facilities are projected to close due to the proposed rule.

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

Solid waste and water impacts of the proposed rule are expected to be negligible. Capture of additional organic HAP-laden streams and control of these streams with regenerative thermal oxidizers is expected to require an additional 180 million kilowatt hours per year and an additional 4.9 billion standard cubic feet per year of natural gas.

E. Can We Achieve the Goals of the Proposed Rule in a Less Costly Manner?

We have made every effort in developing this proposal to minimize the cost to the regulated community and allow maximum flexibility in compliance options consistent with our statutory obligations. We recognize, however, that the proposal may still require some facilities to take costly steps to further control emissions even though those emissions may not result in exposures which could pose an excess individual lifetime cancer risk greater than 1 in 1 million or exceed thresholds determined to provide an ample margin of safety for protecting public health and the environment from the effects of HAP. We are, therefore, specifically soliciting comment on whether there are further ways to structure the proposed rule to focus on the facilities which pose significant risks and avoid the imposition of high costs on facilities that pose little risk to public health and the environment.

During the rulemaking process on a separate proposed NESHAP, representatives of the plywood and composite wood products industry provided EPA with descriptions of three approaches that they believed could be used to implement more cost-effective reductions in risk. These approaches could be effective in focusing regulatory controls on facilities that pose significant risks and avoiding the

imposition of high costs on facilities that pose little risk to public health or the environment, and we are seeking public comment on the utility of each of these approaches with respect to this rule. The docket for today's proposed rule contains "white papers" prepared by the plywood and composite wood products industry that outline their proposed approaches (*see* docket number A-2001-22).

One of the approaches, an applicability cutoff for threshold pollutants, would be implemented under the authority of CAA section 112(d)(4); the second approach, subcategorization and delisting, would be implemented under the authority of CAA section 112(c)(1) and (c)(9); and the third approach would involve the use of a concentration-based applicability threshold. We are seeking comment on whether these approaches are legally justified and, if so, we ask for information that could be used to support such approaches.

The MACT program outlined in CAA section 112(d) is intended to reduce emissions of HAP through the application of MACT to major sources of toxic air pollutants. Section 112(c)(9) is intended to allow EPA to avoid setting MACT standards for categories or subcategories of sources that pose less than a specified level of risk to public health and the environment. The EPA requests comment on whether the proposals described here appropriately rely on these provisions of CAA section 112. The two health-based approaches focus on assessing inhalation exposures or accounting for adverse environmental impacts. In addition to the specific requests for comment noted in this section, we are also interested in any information or comment concerning technical limitations, environmental and cost impacts, compliance assurance, legal rationale, and implementation relevant to the identified approaches. We also request comment on appropriate practicable and verifiable methods to ensure that sources' emissions remain below levels that protect public health and the environment. We will evaluate all comments before determining whether to include an approach in the final rule.

1. Industry HAP emissions and potential health effects

For the automobile and light-duty truck surface coating source category, seven HAP account for over 95 percent of the total HAP emitted. Those seven HAP are toluene, xylene, glycol ethers (including ethylene glycol monobutyl ether (EGBE)), MEK, MIBK, ethylbenzene, and methanol. Additional

HAP which may be emitted by some automobile and light-duty truck surface coating operations are: Ethylene glycol, hexane, formaldehyde, chromium compounds, diisocyanates, manganese compounds, methyl methacrylate, methylene chloride, and nickel compounds.

Of the seven HAP emitted in the largest quantities by this source category, all can cause toxic effects following sufficient exposure. The potential toxic effects of these seven HAP include effects to the central nervous system, such as fatigue, nausea, tremors, and loss of motor coordination; adverse effects on the liver, kidneys, and blood; respiratory effects; and developmental effects. In addition, one of the seven predominant HAP, EGBE, is a possible carcinogen, although information on this compound is not currently sufficient to allow us to quantify its potency.

In accordance with CAA section 112(k), EPA developed a list of 33 HAP which present the greatest threat to public health in the largest number of urban areas. None of the predominant seven HAP is included on this list for EPA's Urban Air Toxics Program, although three of the other emitted HAP (formaldehyde, manganese compounds, and nickel compounds) appear on the list. In November 1998, EPA published "A Multimedia Strategy for Priority Persistent, Bioaccumulative, and Toxic (PBT) Pollutants." None of the predominant seven HAP emitted by automobile and light-duty truck surface coating operations appears on the published list of compounds referred to in EPA's PBT strategy.

To estimate the potential baseline risks posed by the source category and the potential impact of applicability cutoffs, EPA performed a "rough" risk assessment for 56 of the approximately 60 facilities in the source category by using a model plant placed at the actual location of each plant and simulating impacts using air emissions data from the 1999 EPA Toxics Release Inventory (TRI). In addition to the seven predominant HAP, the following additional HAP were included in this rough risk assessment because they were reported in TRI as being emitted by facilities in the source category: ethylene glycol, hexane, formaldehyde, diisocyanates, manganese compounds, nickel compounds, and benzene. The benzene emissions and some of the nickel emissions are from non-surface coating activities which are not part of the source category. Of the HAP reported in TRI which are emitted from automobile and light-duty truck surface coating operations, three (formaldehyde,

nickel compounds, and EGBE) are carcinogens that, at present, are not considered to have thresholds for cancer effects. Ethylene glycol monobutyl ether, however, may be a threshold carcinogen, as suggested by some recent evidence from animal studies, though EPA, at present, considers it to be a non-threshold carcinogen without sufficient information to quantify its cancer potency. Likewise, formaldehyde is a potential threshold carcinogen, and EPA is currently revising the dose-response assessment for formaldehyde. Most facilities in this source category emit some small quantity of formaldehyde. In the 1999 TRI, however, only two facilities in this source category reported formaldehyde emissions. No other facilities exceeded the TRI reporting threshold for formaldehyde in 1999.

The baseline cancer risk and subsequent cancer risk reductions were estimated to be minimal for this source category. Of the three carcinogens included in the assessment, emissions reductions attributable to the proposed standards could be estimated for only EGBE. However, since EGBE risks cannot currently be quantified, the cancer risk reductions associated with the proposed rule are estimated by this rough assessment to be minimal. However, noncancer risks are projected to be significantly reduced by the proposed rule. (Details of this assessment are available in the docket.)

2. Applicability Cutoffs for Threshold Pollutants Under CAA Section 112(d)(4)

The first approach is an "applicability cutoff" for threshold pollutants that is based on EPA's authority under CAA section 112(d)(4) to establish standards for HAP which are "threshold pollutants." A "threshold pollutant" is one for which there is a concentration or dose below which adverse effects are not expected to occur over a lifetime of exposure. For such pollutants, section 112(d)(4) allows EPA to consider the threshold level, with an ample margin of safety, when establishing emission standards. Specifically, section 112(d)(4) allows EPA to establish emission standards that are not based upon the MACT specified under section 112(d)(2) for pollutants for which a health threshold has been established. Such standards may be less stringent than MACT. Historically, EPA has interpreted section 112(d)(4) to allow categories of sources that emit only threshold pollutants to avoid further regulation if those emissions result in ambient levels that do not exceed the

threshold, with an ample margin of safety.¹

A different interpretation would allow us to exempt individual facilities within a source category that meet the section 112(d)(4) requirements. There are three potential scenarios under this interpretation of the section 112(d)(4) provision. One scenario would allow an exemption for individual facilities that emit only threshold pollutants and can demonstrate that their emissions of threshold pollutants would not result in air concentrations above the threshold levels, with an ample margin of safety, even if the category is otherwise subject to MACT. A second scenario would allow the section 112(d)(4) provision to be applied to both threshold and non-threshold pollutants, using the 1 in 1 million cancer risk level for decisionmaking for non-threshold pollutants.

A third scenario would allow a section 112(d)(4) exemption at a facility that emits both threshold and non-threshold pollutants. For those emission points where only threshold pollutants are emitted and where emissions of the threshold pollutants would not result in air concentrations above the threshold levels, with an ample margin of safety, those emission points could be exempt from the MACT standards. The MACT standards would still apply to non-threshold emissions from other emission points at the source. For this third scenario, emission points that emit a combination of threshold and non-threshold pollutants that are co-controlled by MACT would still be subject to the MACT level of control. However, any threshold HAP eligible for exemption under section 112(d)(4) that

are controlled by control devices different from those controlling non-threshold HAP would be able to use the exemption, and the facility would still be subject to the sections of the standards that control non-threshold pollutants or that control both threshold and non-threshold pollutants.

Estimation of hazard quotients and hazard indices. Under the section 112(d)(4) approach, EPA would have to determine that emissions of each of the threshold pollutants emitted by automobile and light-duty truck surface coating operations at the facility do not result in exposures which exceed the threshold levels, with an ample margin of safety.

The common approach for evaluating the potential hazard of a threshold air pollutant is to calculate a "hazard quotient" by dividing the pollutant's inhalation exposure concentration (often assumed to be equivalent to its estimated concentration in air at a location where people could be exposed) by the pollutant's inhalation Reference Concentration (RfC). An RfC is an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure that, over a lifetime, likely would not result in the occurrence of adverse health effects in humans, including sensitive individuals.

The EPA typically establishes an RfC by applying uncertainty factors to the critical toxic effect derived from the lowest- or no-observed-adverse-effect level of a pollutant². A hazard quotient less than one means that the exposure concentration of the pollutant is less than the RfC and, therefore, presumed to be without appreciable risk of adverse

health effects. A hazard quotient greater than one means that the exposure concentration of the pollutant is greater than the RfC. Further, EPA guidance for assessing exposures to mixtures of threshold pollutants recommends calculating a hazard index (HI) by summing the individual hazard quotients for those pollutants in the mixture that affect the same target organ or system by the same mechanism³. The HI values would be interpreted similarly to hazard quotients; values below one would generally be considered to be without appreciable risk of adverse health effects, and values above one would generally be cause for concern.

For the determinations discussed herein, EPA would generally plan to use RfC values contained in EPA's toxicology database, the Integrated Risk Information System (IRIS). When a pollutant does not have an approved RfC in IRIS, or when a pollutant is a carcinogen, EPA would have to determine whether a threshold exists based upon the availability of specific data on the pollutant's mode or mechanism of action, potentially using a health threshold value from an alternative source, such as the Agency for Toxic Substances and Disease Registry (ATSDR) or the California Environmental Protection Agency (CalEPA). Table 4 provides RfC, as well as unit risk estimates, for the HAP emitted by automobile and light-duty truck surface coating operations. A unit risk estimate is defined as the upper-bound excess lifetime cancer risk estimated to result from continuous exposure to an agent at a concentration of 1 ug/m³ in the air.

TABLE 4.—DOSE-RESPONSE ASSESSMENT VALUES FOR HAP REPORTED EMITTED BY THE AUTOMOBILE AND LIGHT-DUTY TRUCK SURFACE COATING SOURCE CATEGORY

Chemical name	CAS No.	Reference concentration ^a (mg/m ³)	Unit risk estimate ^b (1/(ug/m ³))
Chromium (VI) compounds	18540-29-9	1.0E-04 (IRIS)	1.2E-02 (IRIS)
Chromium (VI) trioxide, chromic acid mist	11115-74-5	8.0E-06 (IRIS)	
Ethyl benzene	100-41-4	1.0E+00 (IRIS)	1.3E-05 (IRIS)
Ethylene glycol	107-21-1	4.0E-01 (CAL)	
Formaldehyde	50-00-0	9.8E-03 (ATSDR)	
Diethylene glycol monobutyl ether	112-34-5	2.0E-02 (HEAST)	
Ethylene glycol monobutyl ether	111-76-2	1.3E+01 (IRIS)	
Hexamethylene-1, 6-diisocyanate	822-06-0	1.0E-05 (IRIS)	
n-Hexane	110-54-3	2.0E-01 (IRIS)	
Manganese compounds	7439-96-5	5.0E-05 (IRIS)	
Methanol	67-56-1	4.0E+00 (CAL)	
Methyl ethyl ketone	78-93-3	1.0E+00 (IRIS)	
Methyl isobutyl ketone	108-10-1	8.0E-02 (HEAST)	
Methyl methacrylate	80-62-6	7.0E-01 (IRIS)	4.7E-07 (IRIS)
Methylene chloride	75-09-2	1.0E+00 (ATSDR)	

¹ See 63 FR 18754, 18765-66 (April 15, 1998) (Pulp and Paper Combustion Sources Proposed NESHAP).

² "Methods for Derivation of Inhalation reference Concentrations and Applications of Inhalation

Dosimetry." EPA-600/8-90-066F, Office of Research and Development, USEPA, October 1994.

³ "Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures. Risk

Assessment Forum Technical Panel," EPA/630/R-00/002. USEPA, August 2000. http://www.epa.gov/nceawww1/pdfs/chem_mix/chem_mix_08_2001.pdf.

TABLE 4.—DOSE-RESPONSE ASSESSMENT VALUES FOR HAP REPORTED EMITTED BY THE AUTOMOBILE AND LIGHT-DUTY TRUCK SURFACE COATING SOURCE CATEGORY—Continued

Chemical name	CAS No.	Reference concentration ^a (mg/m ³)	Unit risk estimate ^b (1/(ug/m ³))
Methylene diphenyl diisocyanate	101-68-8	6.0E-04 (IRIS)	1.1E-05 (CAL)
Nickel compounds	7440-02-0	2.0E-04 (ATSDR)	
Nickel oxide	1313-99-1	1.0E-04 (CAL)	
Toluene	108-88-3	4.0E-01 (IRIS)	
2,4,6-Toluene diisocyanate mixture (TDI)	26471-62-5	7.0E-05 (IRIS)	
Xylenes (mixed)	1330-20-7	4.3E-01 (ATSDR)	

^aReference Concentration: An estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups which include children, asthmatics, and the elderly) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

^bUnit Risk Estimate: The upper-bound excess lifetime cancer risk estimated to result from continuous exposure to an agent at a concentration of 1 ug/m³ in air. The interpretation of the Unit Risk Estimate would be as follows: if the Unit Risk Estimate = 1.5×10^{-6} per ug/m³, 1.5 excess tumors are expected to develop per 1,000,000 people if exposed daily for a lifetime to 1 ug of the chemical in 1 cubic meter of air. Unit Risk Estimates are considered upper bound estimates, meaning they represent a plausible upper limit to the true value. (Note that this is usually not a true statistical confidence limit.) The true risk is likely to be less, but could be greater.

Sources: IRIS = EPA Integrated Risk Information System (<http://www.epa.gov/iris/subst/index.html>) ATSDR = U.S. Agency for Toxic Substances and Disease Registry (<http://www.atsdr.cdc.gov/mrls.html>) CAL = California Office of Environmental Health Hazard Assessment (http://www.oehha.ca.gov/air/hot_spots/index.html) HEAST = EPA Health Effects Assessment Summary Tables (#PB(=97-921199, July 1997).

To establish an applicability cutoff under section 112(d)(4), EPA would need to define ambient air exposure concentration limits for any threshold pollutants involved. There are several factors to consider when establishing such concentrations. First, we would need to ensure that the concentrations that would be established would protect public health with an ample margin of safety. As discussed above, the approach EPA commonly uses when evaluating the potential hazard of a threshold air pollutant is to calculate the pollutant's hazard quotient, which is the exposure concentration divided by the RfC.

The EPA's "Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures" suggests that the noncancer health effects associated with a mixture of pollutants ideally are assessed by considering the pollutants' common mechanisms of toxicity.⁴ The guidance also suggests that when exposures to mixtures of pollutants are being evaluated, the risk assessor may calculate a HI. The recommended method is to calculate multiple hazard indices for each exposure route of interest and for a single specific toxic effect or toxicity to a single target organ. The default approach recommended by the guidance is to sum the hazard quotients for those pollutants that induce the same toxic effect or affect the same target organ. A mixture is then assessed by several HI, each representing one toxic effect or target organ. The guidance notes that the pollutants included in the HI calculation are any pollutants that show the effect being assessed, regardless of

the critical effect upon which the RfC is based. The guidance cautions that if the target organ or toxic effect for which the HI is calculated is different from the RfC's critical effect, then the RfC for that chemical will be an overestimate, that is, the resultant HI potentially may be overprotective. Conversely, since the calculation of a HI does not account for the fact that the potency of a mixture of HAP can be more potent than the sum of the individual HAP potencies, a HI may potentially be underprotective in some situations.

Options for establishing a HI limit. One consideration in establishing a HI limit is whether the analysis considers the total ambient air concentrations of all the emitted HAP to which the public is exposed.⁵ There are several options for establishing a HI limit for the section 112(d)(4) analysis that reflect, to varying degrees, public exposure.

One option is to allow the HI posed by all threshold HAP emitted from automobile and light-duty truck surface coating operations at the facility to be no greater than one. This approach is protective if no additional threshold HAP exposures would be anticipated from other sources at, or in the vicinity of, the facility or through other routes of exposure (e.g., through dermal absorption).

A second option is to adopt a "default percentage" approach, whereby the HI limit of the HAP emitted by the facility is set at some percentage or fraction of one (e.g., 20 percent or 0.2). This approach recognizes the fact that the facility in question is only one of many

sources of threshold HAP to which people are typically exposed every day. Because noncancer risk assessment is predicated on total exposure or dose, and because risk assessments focus only on an individual source, establishing a HI limit of 0.2 would account for an assumption that 20 percent of an individual's total exposure is from that individual source. For the purposes of this discussion, we will call all sources of HAP, other than operations within the source category at the facility in question, "background" sources. If the affected source is allowed to emit HAP such that its own impacts could result in HI values of one, total exposures to threshold HAP in the vicinity of the facility could be substantially greater than one due to background sources, and this would not be protective of public health since only HI values below one are considered to be without appreciable risk of adverse health effects. Thus, setting the HI limit for the facility at some default percentage of one will provide a buffer which would help to ensure that total exposures to threshold HAP near the facility (i.e., in combination with exposures due to background sources) will generally not exceed one and can generally be considered to be without appreciable risk of adverse health effects.

The EPA requests comment on using the "default percentage" approach and on setting the default HI limit at 0.2. The EPA is also requesting comment on whether an alternative HI limit, in some multiple of one, would be a more appropriate applicability cutoff.

A third option is to use available data (from scientific literature or EPA studies, for example) to determine background concentrations of HAP,

⁵ Senate Debate on Conference Report (October 27, 1990), reprinted in "A Legislative History of the Clean Air Act Amendments of 1990," Comm. Print S. Prt. 103-38 (1993) ("Legis. Hist.") at 868.

⁴Ibid.

possibly on a national or regional basis. These data would be used to estimate the exposures to HAP from activities other than automobile and light-duty truck surface coating operations. For example, EPA's National-Scale Air Toxics Assessment (NATA)⁶ and ATSDR's Toxicological Profiles⁷ contain information about background concentrations of some HAP in the atmosphere and other media. The combined exposures from an affected source and from background emissions (as determined from the literature or studies) would then not be allowed to exceed a HI limit of 1.0. The EPA requests comment on the appropriateness of setting the HI limit at one for such an analysis.

A fourth option is to allow facilities to estimate or measure their own facility-specific background HAP concentrations for use in their analysis. With regard to the third and fourth options, EPA requests comment on how these analyses could be structured. Specifically, EPA requests comment on how the analyses should take into account background exposure levels from air, water, food, and soil encountered by the individuals exposed to emissions from this source category. In addition, we request comment on how such analyses should account for potential increases in exposures due to the use of a new HAP or the increased use of a previously emitted HAP, or the effect of other nearby sources that release HAP.

The EPA requests comment on the feasibility and scientific validity of each of these or other options. Finally, EPA requests comment on how we should implement the section 112(d)(4) applicability cutoffs, including appropriate mechanisms for applying cutoffs to individual facilities. For example, would the title V permit process provide an appropriate mechanism?

Tiered analytical approach for predicting exposure. Establishing that a facility meets the cutoffs established under section 112(d)(4) will necessarily involve combining estimates of pollutant emissions with air dispersion modeling to predict exposures. The EPA envisions that we would promote a tiered analysis for these determinations. A tiered analysis involves making successive refinements in modeling methodologies and input data to derive successively less conservative, more realistic estimates of pollutant concentrations in air and estimates of risk.

As a first tier of analysis, EPA could develop a series of simple look-up tables based on the results of air dispersion modeling conducted using conservative input assumptions. By specifying a limited number of input parameters, such as stack height, distance to property line, and emission rate, a facility could use these look-up tables to determine easily whether the emissions from their sources might cause a HI limit to be exceeded.

A facility that does not pass this initial conservative screening analysis could implement increasingly more site-specific and resource-intensive tiers of analysis using EPA-approved modeling procedures in an attempt to demonstrate that exposure to emissions from the facility does not exceed the HI limit. Existing EPA guidance could provide the basis for conducting such a tiered analysis.⁸

The EPA requests comment on methods for constructing and implementing a tiered analysis for determining applicability of the section 112(d)(4) criteria to specific automobile and light-duty truck surface coating sources. Ambient monitoring data could possibly be used to supplement or supplant the tiered modeling analysis described above. We envision that the appropriate monitoring to support such a determination could be extensive. The EPA requests comment on the appropriate use of monitoring in the determinations described above.

Accounting for dose-response relationships. In the past, EPA routinely treated carcinogens as non-threshold pollutants. The EPA recognizes that advances in risk assessment science and policy may affect the way EPA differentiates between threshold and non-threshold HAP. The EPA's draft Guidelines for Carcinogen Risk Assessment⁹ suggest that carcinogens be assigned non-linear dose-response relationships where data warrant. Moreover, it is possible that dose-response curves for some pollutants may reach zero risk at a dose greater than zero, creating a threshold for carcinogenic effects. It is possible that future evaluations of the carcinogens emitted by this source category would determine that one or more of the carcinogens in the category is a threshold carcinogen or is a carcinogen

that exhibits a non-linear dose-response relationship but does not have a threshold.

The dose-response assessment for formaldehyde is currently undergoing revision by EPA. As part of this revision effort, EPA is evaluating formaldehyde as a potential non-linear carcinogen. The revised dose-response assessment will be subject to review by the EPA Science Advisory Board, followed by full consensus review, before adoption into the EPA's IRIS. At this time, EPA estimates that the consensus review will be completed by the end of 2003. The revision of the dose-response assessment could affect the potency factor of formaldehyde, as well as its status as a threshold or non-threshold pollutant. At this time, the outcome is not known. In addition to the current reassessment by EPA, there have been several reassessments of the toxicity and carcinogenicity of formaldehyde in recent years, including work by the World Health Organization and the Canadian Ministry of Health.

The EPA requests comment on how we should consider the state of the science as it relates to the treatment of threshold pollutants when making determinations under section 112(d)(4). In addition, EPA requests comment on whether there is a level of emissions of a non-threshold carcinogenic HAP at which it would be appropriate to allow a facility to use the scenarios discussed under the section 112(d)(4) approach.

Risk assessment results. The results of the human health risk assessments described below are based on approaches for quantifying exposure, risk, and cancer incidence that carry significant assumptions, uncertainties, and limitations. For example, in conducting these types of analyses, there are typically many uncertainties regarding dose-response functions, levels of exposure, exposed populations, air quality modeling applications, emission levels, and control effectiveness. Because the estimates derived from the various scoping approaches are necessarily rough, we are concerned that they not convey a false sense of precision. Any point estimates of risk reduction or benefits generated by these approaches should be considered as part of a range of potential estimates.

If the final rule is implemented as proposed at all automobile and light-duty truck surface coating facilities, the number of people exposed to HI values equal to, or greater than, one was estimated to be reduced from about 100 to about ten. The number of people exposed to HI values of 0.2 or greater was predicted to decrease from about

⁸ "A Tiered Modeling Approach for Assessing the Risks due to Sources of Hazardous Air Pollutants." EPA-450/4-92-001. David E. Guinnup, Office of Air Quality Planning and Standards, USEPA, March 1992.

⁹ "Draft Revised Guidelines for Carcinogen Risk Assessment." NCEA-F-0644. USEPA, Risk Assessment Forum, July 1999. pp 3-9ff. http://www.epa.gov/ncea/raf/pdfs/cancer_gls.pdf.

⁶ See <http://www.epa.gov/ttn/atw/nata>.

⁷ See <http://www.atsdr.cdc.gov/toxpro2.html>.

3,500 to about 1,200. (Details of these analyses are available in the docket.)

Based on the results of this rough assessment, if the section 112(d)(4) approach is applied only to threshold pollutants, EPA estimates that none of the facilities in this source category could obtain an exemption from regulation, since all, or nearly all, facilities emit some amount of one or more non-threshold pollutants. This application of the section 112(d)(4) approach is estimated to produce minimal potential cost savings. If formaldehyde and EGBE are determined to be threshold carcinogens, these estimates could change.

The second scenario under the section 112(d)(4) provision would apply to both threshold and non-threshold pollutants. If this scenario is selected, EPA estimates, using a HI limit of one and treating 10^{-6} as a cancer risk threshold, that as many as 54 of the facilities in the source category may be exempt from the proposed rule. The EPA estimates in this case that the annualized cost of the proposed rule would be about \$9 million per year, resulting in cost savings of about \$145 million per year (as compared to establishing a MACT standard for all plants in the industry). Using a HI limit of 0.2 and treating 10^{-6} as a cancer risk threshold, EPA estimates that as many as 41 facilities may be exempt from the proposed rule. The EPA estimates in this case that the annualized cost of the proposed rule would be about \$66 million per year, resulting in cost savings of about \$88 million per year (as compared to establishing a MACT standard for all plants in the industry).

The EPA does not expect the third scenario, which would allow emission point exemptions, to be applicable for the automobile and light-duty truck surface coating source category because mixtures of threshold and non-threshold pollutants are co-emitted, and the same emission controls would apply to both.

The risk estimates from this rough assessment are based on typical facility configurations (*i.e.*, model plants) and, as such, they are subject to significant uncertainties, such that the actual risks at any one facility could be significantly higher or lower. Therefore, while these risk estimates assist in providing a broad picture of impacts across the source category, they should not be the basis for an exemption from the requirements of the proposed rule. Rather, any such exemption should be based on an estimate of the facility-specific risks which would require site-specific data and a more refined analysis.

For either of the first two approaches described above, the actual number of facilities that would qualify for an exemption would depend upon site-specific risk assessments and the specified HI limit (see earlier discussion of HI limit). If the section 112(d)(4) approach were adopted, the requirements of the proposed rule would not apply to any source that demonstrates, based on a tiered analysis that includes EPA-approved modeling of the affected source's emissions, that the anticipated HAP exposures do not exceed the specified HI limit.

3. Subcategory Delisting Under Section 112(c)(9)(B) of the CAA

The EPA is authorized to establish categories and subcategories of sources, as appropriate, pursuant to CAA section 112(c)(1), in order to facilitate the development of MACT standards consistent with section 112 of the CAA. Further, section 112(c)(9)(B) allows EPA to delete a category (or subcategory) from the list of major sources for which MACT standards are to be developed when the following can be demonstrated: (1) In the case of carcinogenic pollutants, that “* * * no source in the category * * * emits (carcinogenic) air pollutants in quantities which may cause a lifetime risk of cancer greater than 1 in 1 million to the individual in the population who is most exposed to emissions of such pollutants from the source * * *”; (2) in the case of pollutants that cause adverse noncancer health effects, that “* * * emissions from no source in the category or subcategory * * * exceed a level which is adequate to protect public health with an ample margin of safety * * *”; and (3) in the case of pollutants that cause adverse environmental effects, that “no adverse environmental effect will result from emissions from any source. * * *”

Given these authorities and the suggestions from the white papers prepared by industry representatives and discussed previously (see docket A-2001-22), EPA is considering whether it would be possible to establish a subcategory of facilities within the larger source category that would meet the risk-based criteria for delisting. Such criteria would likely include the same requirements as described previously for the second scenario under the section 112(d)(4) approach, whereby a facility would be in the low-risk subcategory if its emissions of threshold pollutants do not result in exposures which exceed the HI limits, and if its emissions of non-threshold pollutants do not result in exposures which exceed a cancer risk level of 10^{-6} . The EPA

requests comment on what an appropriate HI limit would be for a determination that a facility be included in the low-risk subcategory.

Since each facility in such a subcategory would be a low-risk facility (*i.e.*, each would meet these criteria), the subcategory could be delisted in accordance with section 112(c)(9), thereby limiting the costs and impacts of the proposed MACT rule to only those facilities that do not qualify for subcategorization and delisting. The EPA estimates that the maximum potential of utilizing this approach would be the same as that of applying the section 112(d)(4) approach for threshold and non-threshold pollutants, though the actual impact is likely to be less. For example, with a HI value limit of one and treating 10^{-6} as a cancer risk threshold, as many as 54 of the facilities may be exempted under this approach. Alternatively, with a HI limit of 0.2 and treating 10^{-6} as a cancer risk threshold, as many as 41 facilities may be exempted under this approach.

Facilities seeking to be included in the delisted subcategory would be responsible for providing all data required to determine whether they are eligible for inclusion. Facilities that could not demonstrate that they are eligible to be included in the low-risk subcategory would be subject to MACT and possible future residual risk standards. The EPA solicits comment on implementing a risk-based approach for establishing subcategories of automobile and light-duty truck surface coating facilities.

Establishing that a facility qualifies for the low-risk subcategory under section 112(c)(9) will necessarily involve combining estimates of pollutant emissions with air dispersion modeling to predict exposures. The EPA envisions that we would employ the same tiered analysis described earlier in the section 112(d)(4) discussion for these determinations.

One concern that EPA has with respect to the section 112(c)(9) approach is the effect that it could have on the MACT floors. If many of the facilities in the low-risk subcategory are well-controlled, that could make the MACT floor less stringent for the remaining facilities. One approach that has been suggested to mitigate this effect would be to establish the MACT floor now based on controls in place for the entire category and to allow facilities to become part of the low-risk subcategory in the future, after the MACT standards are established. This would allow low-risk facilities to use the section 112(c)(9) exemption without affecting the MACT

floor calculation. The EPA requests comment on this suggested approach.

Another scenario under the section 112(c)(9) approach would be to define a subcategory of facilities within the source category based upon technological differences, such as differences in production rate, emission vent flow rates, overall facility size, emissions characteristics, processes, or air pollution control device viability. The EPA requests comment on how we might establish subcategories based on these, or other, source characteristics. If it could then be determined that each source in this technologically-defined subcategory presents a low risk to the surrounding community, the subcategory could then be delisted in accordance with section 112(c)(9). The EPA requests comment on the concept of identifying technologically-based subcategories that may include only low-risk facilities within the source category.

If a section 112(c)(9) approach were adopted, the requirements of the proposed rule would not apply to any source that demonstrates that it belongs in a subcategory which has been delisted under section 112(c)(9).

Consideration of criteria pollutants. Finally, EPA projects that adoption of the MACT floor level of controls would result in increases in nitrogen oxide (NO_x) emissions. This pollutant is a precursor in the formation of ozone and fine particulate matter (PM). Ozone has been associated with a variety of adverse health effects such as reduced lung function, respiratory symptoms (e.g., cough and chest pain) and increased hospital admissions and emergency room visits for respiratory causes. Fine PM has been associated with a variety of adverse health effects such as premature mortality, chronic bronchitis, and increased frequency of asthma attacks. The EPA requests comments on the extent to which consideration should be given to the adverse effects of the possible increase in NO_x emissions from applying MACT technology, in the context of implementing our authority under section 112(c)(9) or other exemptions.

V. How Will the Proposed Amendments to 40 CFR Parts 264 and 265, Subparts BB of the Hazardous Waste Regulations Be Implemented in the States?

A. Applicability of Federal Rules in Authorized States

Under section 3006 of the RCRA, EPA may authorize a qualified State to administer and enforce a hazardous waste program within the State in lieu of the Federal program and to issue and

enforce permits in the State. A State may receive authorization by following the approval process described under 40 CFR 271.21. See 40 CFR part 271 for the overall standards and requirements for authorization. The EPA continues to have independent authority to bring enforcement actions under RCRA sections 3007, 3008, 3013, and 7003. An authorized State also continues to have independent authority to bring enforcement actions under State law.

After a State receives initial authorization, new Federal requirements promulgated under RCRA authority existing prior to the 1984 Hazardous and Solid Waste Amendments (HSWA) do not apply in that State until the State adopts and receives authorization for equivalent State requirements. In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), new Federal requirements and prohibitions promulgated pursuant to HSWA provisions take effect in authorized States at the same time that they take effect in unauthorized States. As such, EPA carries out HSWA requirements and prohibitions in authorized States, including the issuance of new permits implementing those requirements, until EPA authorizes the State to do so.

Authorized States are required to modify their programs when EPA promulgates Federal requirements that are more stringent or broader in scope than existing Federal requirements. The RCRA section 3009 allows the States to impose standards more stringent than those in the Federal program. (See also section 271.1(i)). Therefore, authorized States are not required to adopt Federal regulations, both HSWA and non-HSWA, that are considered less stringent than existing Federal requirements.

B. Authorization of States for Today's Proposed Amendments

Currently, the air emissions from the collection, transmission, and storage of purged paint and solvent at automobile and light-duty truck assembly plants are regulated under the authority of RCRA (see 40 CFR parts 264 and 265, subparts BB). The proposed amendments would exempt these wastes from regulation under RCRA and defer regulation to the CAA requirements of 40 CFR part 63, subpart IIII, which is also being proposed today. This exemption is considered to be less stringent than the existing RCRA regulations and, therefore, States are not required to adopt and seek authorization for today's proposed exemption. However, EPA will strongly encourage States to adopt today's proposed RCRA provisions and

seek authorization for them to prevent duplication with the new NESHAP when final.

VI. Solicitation of Comments and Public Participation

We welcome comments from interested persons on any aspect of the proposed standards and on any statement(s) in this preamble or in the referenced supporting documents. In particular, we request comments on how monitoring, recordkeeping, and reporting requirements can be consolidated for sources that are subject to more than one rule. For example, all automobile and light-duty truck assembly plants are subject to VOC regulations and some may perform coating activities which would be subject to the NESHAP for plastic parts coating or miscellaneous metal parts coating, both currently under development.

Supporting data and detailed analyses should be submitted with comments to allow us to make maximum use of the comments. All comments should be directed to the Air and Radiation Docket and Information Center, Docket No. A-2001-22 (see ADDRESSES). Comments on the proposed rule must be submitted on or before the date specified in DATES.

VII. Administrative Requirements

A. Executive Order 12866, Regulatory Planning and Review

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

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

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

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

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

Pursuant to the terms of Executive Order 12866, it has been determined

that the proposed rule is a "significant regulatory action" because it could have an annual impact on the economy of over \$100 million. Consequently, this action was submitted to OMB for review under Executive Order 12866. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

As stipulated in Executive Order 12866, in deciding how or whether to regulate, EPA is required to assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. To this end, EPA prepared a detailed benefit-cost analysis in the "Regulatory Impact Analysis for the Proposed Automobile and Light-Duty Truck Coatings NESHAP," which is contained in the docket. The following is a summary of the benefit-cost analysis:

It is estimated that 5 years after implementation of the rule as proposed, HAP emissions will be reduced from 10,000 tpy to 4,000 tpy. This represents a 60 percent reduction (or 6,000 tpy) of toluene, xylene, glycol ethers, MEK, MIBK, ethylbenzene, and methanol. Based on scientific studies conducted over the past 20 years, the EPA has classified ethylene glycol monobutyl ether (EGBE), one of the glycol ethers, as a "possible human carcinogen," while ethylbenzene, MEK, toluene, and xylenes are considered by the EPA as "not classifiable as to human carcinogenicity." At this time, we are unable to provide a comprehensive quantification and monetization of the HAP-related benefits of this proposal.

Exposure to HAP can result in the incidence of respiratory irritation, chest constriction, gastric irritation, eye, nose, and throat irritation as well as neurological and blood effects. Specifically, exposure to EGBE may result in neurological and blood effects, including fatigue, nausea, tremor, and anemia. Though no reliable human epidemiological study is available to address the potential carcinogenicity of EGBE, a draft report of a 2-year rodent inhalation study reported equivocal evidence of carcinogenic activity in female rats and male mice. Exposure to MEK may lead to eye, nose, and throat irritation while methanol may lead to blurred vision, headache, dizziness, and nausea. Toluene may cause effects to the central nervous system, such as fatigue, sleepiness, headache, and nausea. In addition, chronic exposure to this HAP can lead to tremors, decreased brain size, involuntary eye movements, and impairment of speech, hearing, and vision. Xylenes, a mixture of three closely related compounds, may cause nose and throat irritation, nausea,

vomiting, gastric irritation, headache, dizziness, fatigue, and tremors.

The control technology to reduce the level of HAP emitted from automobile and light-duty truck coating operations are also expected to reduce emissions of criteria pollutants, particularly VOC. Specifically, the proposed rule achieves a 12,000 to 18,000 tpy reduction in VOC. The VOC is a precursor to tropospheric (ground-level) ozone and a small percentage also precipitate in the atmosphere to form PM.

Although we have not estimated the monetary value associated with VOC reductions, the benefits can be substantial. Health and welfare effects from exposure to ground-level ozone are well documented. Elevated concentrations of ground-level ozone primarily may result in acute respiratory-related impacts such as coughing and difficulty breathing. Chronic exposure to ground-level ozone may lead to structural damage to the lungs, alterations in lung capacity and breathing frequency, increased sensitivity of airways, eye, nose, and throat irritation, malaise, and nausea. Adverse ozone welfare effects include damage to agricultural crops, ornamental plants, and materials damage. Though only a small fraction of VOC forms PM, exposure to PM can result in human health and welfare effects including excess deaths, morbidity, soiling and materials damage, as well as reduced visibility. To the extent that reduced exposure to HAP and VOC reduces the instances of the above described health effects, benefits from the proposed rule are realized by society through an improvement in environmental quality.

Benefit-cost comparison (net benefits) is a tool used to evaluate the reallocation of society's resources used to address the pollution externality created by the coatings operations at automobile and light-duty truck plants. The additional costs of internalizing the pollution produced at major sources of emissions from automobile and light-duty truck manufacturing facilities can be compared to the improvement in society's well-being from a cleaner and healthier environment. Comparing benefits of the proposed rule to the costs imposed by the alternative methods to control emissions optimally identifies a strategy that results in the highest net benefit to society. In the case of the proposed automobiles and light-duty trucks coating NESHAP, we are proposing only one option, the minimum level of control mandated by the CAA or the MACT floor.

Based on estimated compliance costs associated with this proposed rule and

the predicted change in prices and production in the affected industry, the estimated social costs of this proposed rule are \$161 million (1999 dollars).

B. Executive Order 13132, Federalism

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

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

The proposed rule 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, as specified in Executive Order 13132. Pursuant to the terms of Executive Order 13132, it has been determined that the proposed rule does not have "federalism implications" because it does not meet the necessary criteria. Thus, the requirements of section 6 of the Executive Order do not apply to the proposed rule. Although section 6 of Executive Order 13132 does not apply to the proposed rule, EPA did consult with State and local officials to enable them to provide timely input in the development of the proposed regulation.

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

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR

67249, November 9, 2000), requires EPA to develop an accountable process to ensure “meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.” This proposed rule does not have tribal implications, as specified in Executive Order 13175. No tribal governments own or operate automobile and light-duty truck surface coating facilities. Thus, Executive Order 13175 does not apply to the proposed rule.

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

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

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The proposed rule is not subject to Executive Order 13045 because it does not establish environmental standards based on an assessment of health or safety risks. No children’s risk analysis was performed because no alternative technologies exist that would provide greater stringency at a reasonable cost.

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

Executive Order 13211, “Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use” (66 FR 28355, May 22, 2001), requires EPA to prepare and submit a Statement of Energy Effects to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, for certain actions identified as “significant energy actions.” Section 4(b) of Executive Order 13211 defines “significant energy actions” as “any action by an agency (normally published in the **Federal Register**) that

promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action.” This proposed rule is not a “significant energy action” because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

The proposed rule affects the automobile and light-duty truck manufacturing industries. There is no crude oil, fuel, or coal production from these industries, therefore there is no direct effect on such energy production related to implementation of the rule as proposed. In addition, the cost of energy distribution should not be affected by this proposal at all since this proposed rule does not affect energy distribution facilities.

The proposed rule is projected to trigger an increase in energy use due to the installation and operation of additional pollution control equipment. The estimated increase in energy consumption is 4.9 billion standard cubic feet per year of natural gas and 180 million kilowatt hours per year of electricity nationwide. The nationwide cost of this increased energy consumption is estimated at \$26 million per year.

The increase in energy costs does not reflect changes in energy prices, but rather an increase in the quantity of electricity and natural gas demanded. Given that the existing electricity generation capacity in the United States was 785,990 megawatts in 1999¹⁰ and that 23,755 billion cubic feet of natural gas was produced domestically in the same year,¹¹ the proposed rule is not likely to have any significant adverse impact on energy prices, distribution, availability, or use.

F. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of

¹⁰ U.S. Department of Energy. 1999. Electric Power Annual, Volume I. Table A2: Industry Capability by Fuel Source and Industry Sector, 1999 and 1998 (Megawatts).

¹¹ U.S. Department of Energy. 1999. Natural Gas Annual. Table 1: Summary Statistics for Natural Gas in the United States, 1995–1999.

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

We have determined that the proposed rule contains a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Accordingly, we have prepared a written statement (titled “Unfunded Mandates Reform Act Analysis for the Proposed Automobiles and Light-Duty Trucks Coating NESHAP”) under section 202 of the UMRA which is summarized below.

1. Statutory Authority

The statutory authority for this rulemaking is section 112 of the CAA, enacted to reduce nationwide air toxic emissions. In compliance with UMRA section 205(a), we identified and considered a reasonable number of regulatory alternatives. Additional information on the costs and environmental impacts of these

regulatory alternatives is presented in the docket. The regulatory alternative upon which the proposed rule is based represents the MACT floor for automobile and light-duty truck coating operations and, as a result, is the least costly and least burdensome alternative.

2. Social Costs and Benefits

The RIA prepared for the proposed rule, including EPA's assessment of costs and benefits, is detailed in the "Regulatory Impact Analysis for the Automobiles and Light-Duty Trucks Coating NESHAP" in the docket. Based on the estimated compliance costs associated with the proposed rule and the predicted changes in prices and production in the affected industry, the estimated annual social costs of the proposed rule is projected to be \$161 million (1999 dollars).

It is estimated that 5 years after implementation of the rule as proposed, HAP will be reduced from 10,000 tpy to 4,000 tpy. This represents a 60 percent reduction (6,000 tpy) of toluene, xylene, glycol ethers, MEK, MIBK, ethylbenzene, and methanol. Based on scientific studies conducted over the past 20 years, EPA has classified EGBE as a "possible human carcinogen," while ethylbenzene, MEK, toluene, and xylenes are considered by the Agency as "not classifiable as to human carcinogenicity." The studies upon which these classifications are based have worked toward the determination of a relationship between exposure to these HAP and the onset of cancer. However, there are several questions remaining on how cancers that may result from exposure to these HAP can be quantified in terms of dollars. Therefore, EPA is unable to provide a monetized estimate of the benefits of HAP reduced by the proposed rule at this time. Exposure to HAP can result in the incidence of respiratory irritation, chest constriction, gastric irritation, eye, nose, and throat irritation, as well as neurological and blood effects, including fatigue, nausea, tremor, and anemia.

The control technology to reduce the level of HAP emitted from automobile and light-duty truck coating operations is also expected to reduce emissions of criteria pollutants, particularly VOC. Specifically, this proposed rule achieves a 12,000 to 18,000 tpy reduction in VOC. The VOC is a precursor to tropospheric (ground-level) ozone and a small percentage also precipitate in the atmosphere to form PM.

Although we have not estimated the monetary value associated with VOC reductions, the benefits can be substantial. Health and welfare effects

from exposure to ground-level ozone are well documented. Elevated concentrations of ground-level ozone primarily may result in acute respiratory-related impacts such as coughing and difficulty breathing. Chronic exposure to ground-level ozone may lead to structural damage to the lungs, alterations in lung capacity and breathing frequency, increased sensitivity of airways, eye, nose, and throat irritation, malaise, and nausea. Adverse ozone welfare effects include damage to agricultural crops, ornamental plants, and materials damage. Though only a small fraction of VOC forms PM, exposure to PM can result in human health and welfare effects, including excess deaths, morbidity, soiling and materials damage, as well as reduced visibility.

To the extent that reduced exposure to HAP and VOC reduces the instances of the above described health effects, benefits from the proposed rule would be realized by society through an improvement in environmental quality.

3. Future and Disproportionate Costs

The UMRA requires that we estimate, where accurate estimation is reasonably feasible, future compliance costs imposed by the proposed rule and any disproportionate budgetary effects. We do not believe that there will be any disproportionate budgetary effects of the proposed rule on any particular areas of the country, State, or local governments, types of communities (e.g., urban, rural), or particular industry segments.

4. Effects on the National Economy

The UMRA requires that we estimate the effect of the proposed rule on the national economy. To the extent feasible, we must estimate the effect on productivity, economic growth, full employment, creation of productive jobs, and international competitiveness of United States goods and services if we determine that accurate estimates are reasonably feasible and that such effect is relevant and material.

The nationwide economic impact of the proposed rule is presented in the "Regulatory Impact Analysis for the Automobiles and Light-Duty Trucks Coating NESHAP." That analysis provides estimates of the effect of the proposed rule on some of the categories mentioned above.

The estimated direct cost to the automobile and light-duty truck manufacturing industry of compliance with the proposed rule is approximately \$154 million (1999 dollars) annually. Indirect costs of the proposed rule to industries other than the automobile and light-duty truck manufacturing

industry, governments, tribes, and other affected entities are expected to be minimal. The estimated annual costs is minimal when compared to the nominal gross domestic product of \$9,255 billion reported for the Nation in 1999. The proposed rule is expected to have little impact on domestic productivity, economic growth, full employment, energy markets, creation of productive jobs, and the international competitiveness of United States goods and services.

5. Consultation With Government Officials

Although this proposed rule does not affect any State, local, or tribal governments, EPA has consulted with State and local air pollution control officials. The EPA has held meetings on the proposed rule with many of the stakeholders from numerous individual companies, environmental groups, consultants and vendors, and other interested parties. The EPA has added materials to the docket to document these meetings.

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

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

For the automobile and light-duty truck surface coating industry, a small entity is defined as: (1) A small business according to Small Business Administration size standards for companies identified by NAICS codes 33611 (automobile manufacturing) and 33621 (light-duty truck and utility vehicle manufacturing) with 1,000 or fewer employees; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. Based on the above definition, there are no small entities presently engaged in automobile and light-duty truck surface coating.

After considering the economic impacts of today's proposed rule on small entities, I certify that the proposed

rule will not have a significant economic impact on a substantial number of small entities. This certification is based on the observation that the proposed rule affects no small entities since none are engaged in the surface coating of automobiles and light-duty trucks.

H. Paperwork Reduction Act

The information collection requirements in the proposed rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* An ICR document has been prepared by EPA (ICR No. 2045.01) and a copy may be obtained from Susan Auby by mail at the U.S. EPA, Office of Environmental Information, Collection Strategies Division (2822T), 1200 Pennsylvania Ave., NW., Washington, DC 20460, by email at auby.susan@epa.gov, or by calling (202) 566-1672. A copy may also be downloaded off the internet at <http://www.epa.gov/icr>.

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

The proposed standards would not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the final rule) is estimated to be 33,436 labor hours per year at a total annual cost of \$982,742. This estimate includes a one-time performance test and report (with repeat tests where needed) for those affected sources that choose to comply through the installation of new capture systems and control devices; one-time purchase and installation of CPMS for those affected sources that choose to comply through the installation of new capture systems and control devices; preparation and submission of work practice plans; one-time submission of a startup, shutdown, and malfunction

plan with semiannual reports for any event when the procedures in the plan were not followed; semiannual excess emission reports; maintenance inspections; notifications; and recordkeeping. There are no additional capital/startup costs associated with the monitoring requirements over the 3-year period of the ICR. The monitoring related operation and maintenance costs over this same period are estimated at \$7,000.

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

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

Comments are requested on EPA's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. By U.S. Postal Service, send comments on the ICR to the Director, Collection Strategies Division, U.S. EPA (2822T), 1200 Pennsylvania Ave., NW., Washington, DC 20460; or by courier, send comments on the ICR to the Director, Collection Strategies Division, U.S. EPA (2822T), 1301 Constitution Avenue, NW., Room 6143, Washington, DC 20460 ((202) 566-1700); and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., NW., Washington, DC 20503, marked "Attention: Desk Officer for EPA." Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after December 24, 2002, a comment to OMB is best assured of having its full effect if OMB receives it by January 23, 2003. The final rule will respond to any OMB or public

comments on the information collection requirements contained in this proposal.

I. National Technology Transfer and Advancement Act

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

The proposed rulemaking involves technical standards. The EPA cites the following standards in the proposed rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 24, 25, 25A, 204, 204A through F, and 311. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to these EPA methods. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 204A through F, and 311. The search and review results have been documented and are placed in the docket for the proposed rule (docket A-2001-22).

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

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

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

The VCS ASTM D5066-91 (2001), "Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis," is cited in the proposed rule as an acceptable procedure to measure transfer efficiency of spray coatings. Currently, no EPA method is available to measure transfer efficiency.

The two VCS, ASTM D6266-00a, "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" and ASTM D5087-91 (1994), "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)," are cited in the proposed rule as acceptable procedures to measure solvent loading (similar to capture efficiency) for the heated flash zone for waterborne basecoats and for bake ovens. Currently, no EPA method is available to measure solvent release potential from automobile and light-duty truck coatings in order to determine the potential solvent loading from the coatings used.

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

In addition to the VCS EPA proposes to use, the search for emissions measurement procedures identified 14 other VCS. The EPA determined that 10 of these 14 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the proposed rule were impractical alternatives to EPA test methods for the purposes of the proposed rule. Therefore, EPA does not intend to adopt these standards for this purpose. (See docket A-2001-22 for further information on the methods.)

Four of the 14 VCS identified in this search were not available at the time the review was conducted for the purposes of the proposed rule because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary

Flowmeters," for EPA Method 2; ISO/DIS 12039, "Stationary Source Emissions-Determination of Carbon Monoxide, Carbon Dioxide, and Oxygen—Automated Methods," for EPA Method 3A; and ISO/PWI 17895, "Paints and Varnishes-Determination of the Volatile Organic Compound Content of Water-based Emulsion Paints," for EPA Method 24.

Sections 63.3161 and 63.3166 to the proposed standards list the EPA testing methods included in the proposed rule. Under § 63.7(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods in place of any of the EPA testing methods.

During the development of the proposed rulemaking, EPA searched for VCS that might be applicable and included ASTM test methods as appropriate for determination of volume fraction of coating solids.

List of Subjects

40 CFR Part 63

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

40 CFR Part 264

Environmental protection, Air pollution control, Hazardous waste, Insurance, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds.

40 CFR Part 265

Environmental protection, Air pollution control, Hazardous waste, Insurance, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds, Water supply.

Dated: November 26, 2002.

Christine Todd Whitman,
Administrator.

For the reasons stated in the preamble, title 40, chapter I, parts 63, 264, and 265 of the Code of Federal Regulations are proposed to be amended as follows:

PART 63—[AMENDED]

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

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

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

Subpart IIII—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks

Sec.

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- Table 1 to Subpart III of Part 63—Operating Limits for Capture Systems and Add-On Control Devices
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- Table 3 to Subpart III of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends
- Table 4 to Subpart III of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups

Subpart III—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks

What This Subpart Covers

§ 63.3080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for facilities which surface coat new automobile or light-duty truck bodies or collections of body parts for new automobiles or new light-duty trucks. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.3081 Am I subject to this subpart?

(a) Except as provided in paragraph (c) of this section, the source category to which this subpart applies is automobile and light-duty truck surface coating.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.3082, that is located at a facility which surface coats

new automobile or new light-duty truck bodies or collections of body parts for new automobiles or new light-duty trucks, and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

(c) This subpart does not apply to surface coating, surface preparation, or cleaning activities that meet the criteria of paragraph (c)(1) or (2) of this section.

(1) Surface coating subject to any other NESHAP in this part as of [DATE OF PUBLICATION OF FINAL RULE IN THE **Federal Register**], including plastic parts and products surface coating¹ and miscellaneous metal parts surface coating.²

(2) Surface coating that occurs at research or laboratory facilities or that is part of janitorial, building, and facility maintenance operations, including maintenance spray booths used for painting production equipment, furniture, signage, etc., for use within the plant.

§ 63.3082 What parts of my plant does this subpart cover?

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

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of new automobile or light-duty truck bodies or collections of body parts for new automobiles or new light-duty trucks:

- (1) All coating operations as defined in § 63.3176;
- (2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed;
- (3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and
- (4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after December 24, 2002,

and the construction is of a completely new automobile and light-duty truck assembly plant where previously no automobile and light-duty truck assembly plant had existed, or a completely new automobile and light-duty truck paint shop where previously no automobile and light-duty truck assembly plant had existed.

(d) An affected source is reconstructed if it contains a paint shop that has undergone replacement of components to such an extent that:

- (1) The fixed capital cost of the new components exceeded 50 percent of the fixed capital cost that would be required to construct a new paint shop; and
- (2) It was technologically and economically feasible for the reconstructed source to meet the relevant standards established by the Administrator pursuant to section 112 of the Clean Air Act (CAA).

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

§ 63.3083 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstrations described in §§ 63.3150, 63.3160 and 63.3170.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before [DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**], the compliance date is [DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**].

(2) If the initial startup of your new or reconstructed affected source occurs after [DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**], the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after [DATE OF PUBLICATION OF FINAL RULE IN THE **FEDERAL REGISTER**].

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the

¹ Proposed December 4, 2002 (67 FR 72275).

² Proposed August 13, 2002 (67 FR 52780).

compliance date is the date of initial startup of the affected source or [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], whichever is later.

(d) You must meet the notification requirements in § 63.3110 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§ 63.3090 What emission limits must I meet for a new or reconstructed affected source?

(a) Except as provided in paragraph (b) of this section, you must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive application to no more than 0.036 kilogram (kg)/liter (0.30 pound (lb)/gallon (gal)) of coating solids deposited during each month, determined according to the requirements in § 63.3161.

(b) If you meet the operating limits of § 63.3092(a) and (b), you must either meet the emission limits of paragraph (a) of this section or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive application to no more than 0.060 kg/liter (0.50 lb/gal) of applied coating solids used during each month, determined according to the requirements in § 63.3171. If you do not have an electrodeposition primer system, you must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive application to no more than 0.060 kg/liter (0.50 lb/gal) of applied coating solids used during each month, determined according to the requirements in § 63.3171.

(c) You must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month.

(d) You must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month.

§ 63.3091 What emission limits must I meet for an existing affected source?

(a) Except as provided in paragraph (b) of this section, you must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive application to no more than 0.072 kg/liter (0.60 lb/gal) of coating solids deposited during each month, determined according to the requirements in § 63.3161.

(b) If you meet the operating limits of § 63.3092(a) and (b), you must either meet the emission limits of paragraph (a) of this section or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive application to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in § 63.3171. If you do not have an electrodeposition primer system, you must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive application to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in § 63.3171.

(c) You must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month.

(d) You must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month.

§ 63.3092 How must I control emissions from my electrodeposition primer system if I want to comply with the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive emission limit?

If your electrodeposition primer system meets the requirements of either paragraph (a) or (b) of this section, you may choose to comply with the emission limits of § 63.3090(b) or § 63.3091(b) instead of the emission limits of § 63.3090(a) or § 63.3091(a).

(a) Each individual material added to the electrodeposition primer system contains no more than:

(1) 1.0 percent by weight of any organic HAP; and

(2) 0.10 percent by weight of any organic HAP which is an Occupational Safety and Health Administration (OSHA)—defined carcinogen as specified in 29 CFR 1910.1200(d)(4).

(b) Emissions from all bake ovens used to cure electrodeposition primers must be captured and ducted to a control device having a control efficiency of at least 95 percent.

§ 63.3093 What operating limits must I meet?

(a) You are not required to meet any operating limits for any coating operation(s) without add-on controls.

(b) For any controlled coating operation(s), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and add-on control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in § 63.3167. You must meet the operating limits at all times after you establish them.

(c) If you choose to meet the emission limitations of § 63.3092(b) and the emission limits of § 63.3090(b) or § 63.3091(b), then you must operate the capture system and add-on control device used to capture and control emissions from your electrodeposition primer bake oven(s) so that they meet the operating limits specified in Table 1 to this subpart.

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

§ 63.3094 What work practice standards must I meet?

(a) [Reserved]

(b) You must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established under § 63.3090(a) through (d) or § 63.3091(a) through (d). The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.

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

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

(4) Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) You must develop and implement a work practice plan to minimize organic HAP emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are established under § 63.3090(a) through (d) or § 63.3091(a) through (d).

(1) The plan shall, at a minimum, address each of the operations listed in paragraphs (c)(1)(i) through (viii) of this section in which you use organic HAP-containing materials or in which there is a potential for emission of organic HAP.

(i) The plan must address vehicle body wipe emissions through one or more of the techniques listed in paragraphs (c)(1)(i)(A) through (E) of this section, or an approved alternative.

(A) Use of solvent-moistened wipes.

(B) Keeping solvent containers closed when not in use.

(C) Keeping wipe disposal/recovery containers closed when not in use.

(D) Use of tack-wipes.

(E) Use of solvents containing less than 1 percent organic HAP by weight.

(ii) The plan must address coating line purging emissions through one or more of the techniques listed in paragraphs (c)(1)(ii)(A) through (D) of this section, or an approved alternative.

(A) Air/solvent push-out.

(B) Capture and reclaim or recovery of purge materials (excluding applicator nozzles/tips).

(C) Block painting to the maximum extent feasible.

(D) Use of low-HAP or no-HAP solvents for purge.

(iii) The plan must address emissions from flushing of coating systems through one or more of the techniques listed in paragraphs (c)(1)(iii)(A) through (D) of this section, or an approved alternative.

(A) Keeping solvent tanks closed.

(B) Recovering and recycling solvents.

(C) Keeping recovered/recycled solvent tanks closed.

(D) Use of low-HAP or no-HAP solvents.

(iv) The plan must address emissions from cleaning of spray booth grates through one or more of the techniques listed in paragraphs (c)(1)(iv)(A) through (E) of this section, or an approved alternative.

(A) Controlled burn-off.

(B) Rinsing with high-pressure water (in place).

(C) Rinsing with high-pressure water (off line).

(D) Use of spray-on masking or other type of liquid masking.

(E) Use of low-HAP or no-HAP content cleaners.

(v) The plan must address emissions from cleaning of spray booth walls through one or more of the techniques listed in paragraphs (c)(1)(v)(A) through (E) of this section, or an approved alternative.

(A) Use of masking materials (contact paper, plastic sheet, or other similar type of material).

(B) Use of spray-on masking.

(C) Use of rags and manual wipes instead of spray application when cleaning walls.

(D) Use of low-HAP or no-HAP content cleaners.

(E) Controlled access to cleaning solvents.

(vi) The plan must address emissions from cleaning of spray booth equipment through one or more of the techniques listed in paragraphs (c)(1)(vi)(A) through (E) of this section, or an approved alternative.

(A) Use of covers on equipment (disposable or reusable).

(B) Use of parts cleaners (off-line submersion cleaning).

(C) Use of spray-on masking or other protective coatings.

(D) Use of low-HAP or no-HAP content cleaners.

(E) Controlled access to cleaning solvents.

(vii) The plan must address emissions from cleaning of external spray booth areas through one or more of the techniques listed in paragraphs (c)(1)(vii)(A) through (F) of this section, or an approved alternative.

(A) Use of removable floor coverings (paper, foil, plastic, or similar type of material).

(B) Use of manual and/or mechanical scrubbers, rags, or wipes instead of spray application.

(C) Use of shoe cleaners to eliminate coating track-out from spray booths.

(D) Use of booties or shoe wraps.

(E) Use of low-HAP or no-HAP content cleaners.

(F) Controlled access to cleaning solvents.

(viii) The plan must address emissions from housekeeping measures not addressed in paragraphs (c)(1)(i) through (vii) of this section through one or more of the techniques listed in paragraphs (c)(1)(viii)(A) through (C) of this section, or an approved alternative.

(A) Keeping solvent-laden articles (cloths, paper, plastic, rags, wipes, and similar items) in covered containers when not in use.

(B) Storing new and used solvents in closed containers.

(C) Transferring of solvents in a manner to minimize the risk of spills.

(2) Notwithstanding the requirements of paragraphs (c)(1)(i) through (viii) of this section, if the type of coatings used in any facility with surface coating operations subject to the requirements of this section are of such a nature that the need for one or more of the practices specified under paragraphs (c)(1)(i) through (viii) is eliminated, then the plan may include approved alternative or equivalent measures that are applicable or necessary during cleaning of storage, conveying, and application equipment.

(d) As provided in § 63.6(g), we, EPA, may choose to grant you permission to use an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.3100 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in §§ 63.3090 and 63.3091 at all times, as determined on a monthly basis.

(b) The coating operations must be in compliance with the operating limits for emission capture systems and add-on control devices required by § 63.3093 at all times except during periods of startup, shutdown, and malfunction.

(c) You must be in compliance with the work practice standards in § 63.3094 at all times.

(d) You must always operate and maintain your affected source including all air pollution control and monitoring equipment you use for purposes of complying with this subpart according to the provisions in § 63.6(e)(1)(i).

(e) You must maintain a log detailing the operation and maintenance of the emission capture systems, add-on control devices, and continuous parameter monitors (CPM) during the period between the compliance date specified for your affected source in § 63.3083 and the date when the initial

emission capture system and add-on control device performance tests have been completed, as specified in § 63.3160.

(f) If your affected source uses emission capture systems and add-on control devices, you must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3). The plan must address startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control devices.

§ 63.3101 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§ 63.3110 What notifications must I submit?

(a) *General.* You must submit the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial notification.* You must submit the Initial Notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], whichever is later. For an existing affected source, you must submit the Initial Notification no later than 1 year after [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER].

(c) *Notification of compliance status.* You must submit the Notification of Compliance Status required by § 63.9(h) no later than 30 calendar days following the end of the initial compliance period described in § 63.3160 that applies to your affected source. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (12) of this section and in § 63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in § 63.3160 that applies to your affected source.

(4) Identification of the compliance option specified in § 63.3090(a) or (b) or

§ 63.3091(a) or (b) that you used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive application in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet any of the applicable emission limits in § 63.3090 or § 63.3091, include all the calculations you used to determine the applicable emission rate or applicable average organic HAP content for the emission limit(s) that you failed to meet. You do not need to submit information provided by the materials suppliers or manufacturers, or test reports.

(7) All data and calculations used to determine the monthly average mass of organic HAP emitted per volume of applied coating solids from:

(i) The combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations if you were eligible for and chose to comply with the emission limits of § 63.3090(b) or § 63.3091(b); or

(ii) The combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations.

(8) All data and calculations used to determine compliance with the separate limits for electrodeposition primer in § 63.3092(a) or (b) if you were eligible for and chose to comply with the emission limits of § 63.3090(b) or § 63.3091(b).

(9) All data and calculations used to determine the monthly mass average HAP content of materials subject to the emission limits of § 63.3090(c) and (d) or § 63.3091(c) and (d).

(10) All data and calculations used to determine the transfer efficiency for primer-surfacer and topcoat coatings.

(11) You must include the information specified in paragraphs (c)(11)(i) through (iii) of this section.

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the procedure followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations

supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports unless requested.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(12) A statement of whether or not you developed and implemented the work practice plans required by § 63.3094(b) and (c).

§ 63.3120 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.3160 that applies to your affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.

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

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

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR

71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* If you have obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice in this subpart, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (iv) of this section, and the information specified in paragraphs (a)(4) through (9) and (c)(1) of this section that are applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31.

(iv) Identification of the compliance option specified in § 63.3090(b) or § 63.3091(b) that you used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive application in the affected source during the initial compliance period.

(4) *No deviations.* If there were no deviations from the emission limitations, operating limits, or work practices in §§ 63.3090, 63.3091, 63.3092, 63.3093, and 63.3094 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the

reporting period. If you used control devices to comply with the emission limits, and there were no periods during which the continuous parameter monitoring systems (CPMS) were out of control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out of control during the reporting period.

(5) *Deviations: adhesive, sealer, and deadener.* If there was a deviation from the applicable emission limits in § 63.3090(c) and (d) or § 63.3091(c) and (d), the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) The beginning and ending dates of each month during which the monthly average organic HAP content exceeded the applicable emission limit in § 63.3090(c) and (d) or § 63.3091(c) and (d).

(ii) The volume and organic HAP content of each material used that is subject to the applicable organic HAP content limit.

(iii) The calculation used to determine the average monthly organic HAP content for the month in which the deviation occurred.

(iv) The reason for the deviation.

(6) *Deviations: combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive, or combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive.* If there was a deviation from the applicable emission limits in § 63.3090(a) or (b) or § 63.3091(a) or (b), the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (xiv) of this section.

(i) The beginning and ending dates of each month during which the monthly organic HAP emission rate from combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive exceeded the applicable emission limit in § 63.3090(a) or § 63.3091(a); or the monthly organic HAP emission rate from combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive exceeded the applicable emission limit in § 63.3090(b) or § 63.3091(b).

(ii) The calculation used to determine the monthly organic HAP emission rate in accordance with § 63.3161 or § 63.3171. You do not need to submit the background data supporting these calculations, for example information

provided by materials suppliers or manufacturers, or test reports.

(iii) The date and time that any malfunctions of the capture system or add-on control devices used to control emissions from these operations started and stopped.

(iv) A brief description of the CPMS.

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

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

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

(viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of each bypass of an add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to this subpart and the bypass of each add-on control device during the semiannual reporting period.

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

(xi) A summary of the total duration and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.

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

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

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

(7) *Deviations: separate electrodeposition primer organic HAP content limit.* If you used the separate electrodeposition primer organic HAP content limits in § 63.3092(a), and there was a deviation from these limits, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (iii) of this section.

(i) Identification of each material used that deviated from the emission limit,

and the dates and time periods each was used.

(ii) The determination of mass fraction of each organic HAP for each material identified in paragraph (a)(7)(i) of this section. You do not need to submit background data supporting this calculation, for example, information provided by material suppliers or manufacturers, or test reports.

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

(8) *Deviations: separate electrodeposition primer bake oven capture and control limitations.* If you used the separate electrodeposition primer bake oven capture and control limitations in § 63.3092(b), and there was a deviation from these limitations, the semiannual compliance report must contain the information in paragraphs (a)(8)(i) through (xii) of this section.

(i) The beginning and ending dates of each month during which there was a deviation from the separate electrodeposition primer bake oven capture and control limitations in § 63.3092(b).

(ii) The date and time that any malfunctions of the capture systems or control devices used to control emissions from the electrodeposition primer bake oven started and stopped.

(iii) A brief description of the CPMS.

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

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

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

(vii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of each bypass of an add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(viii) A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to this subpart and the bypasses of each add-on control device during the semiannual reporting period.

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

(x) A summary of the total duration and the percent of the total source

operating time of the downtime for each CPMS during the semiannual reporting period.

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

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

(9) *Deviations: work practice plans.* If there was a deviation from an applicable work practice plan developed in accordance with § 63.3094(b) or (c), the semiannual compliance report must contain the information in paragraphs (a)(9)(i) through (iii) of this section.

(i) The time period during which each deviation occurred.

(ii) The nature of each deviation.

(iii) The corrective action(s) taken to bring the applicable work practices into compliance with the work practice plan.

(b) *Performance test reports.* If you use add-on control devices, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2).

(c) *Startup, shutdown, and malfunction reports.* If you used add-on control devices and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

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

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

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

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

§ 63.3130 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep

these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP, the density and the volume fraction of coating solids for each coating, the mass fraction of organic HAP and the density for each thinner, and the mass fraction of organic HAP for each cleaning material. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. If you use the results of an analysis conducted by an outside testing lab, you must keep a copy of the test report. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each month, the records specified in paragraphs (c)(1) through (5) of this section.

(1) For each coating material used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations, a record of the volume used in each month, the mass fraction organic HAP content, the density, and the volume fraction of solids.

(2) For each coating material used for deadener, sealer, or adhesive, a record of the mass used in each month and the mass organic HAP content.

(3) A record of the calculation of the organic HAP emission rate for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive for each month if subject to the emission rate limit of § 63.3090(a) or § 63.3091(a).

(4) A record of the calculation of the organic HAP emission rate for primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive for each month if subject to the emission rate limit of § 63.3090(b) or § 63.3091(b), and a record of the weight fraction of each organic HAP in each material added to the electrodeposition primer system if subject to the limitations of § 63.3092(a).

(5) A record, for each month, of the calculation of the average monthly mass organic HAP content of:

- (i) Sealers and adhesives; and
- (ii) Deadeners.

(d) A record of the name and volume of each cleaning material used during each month.

(e) A record of the mass fraction of organic HAP for each cleaning material used during each month.

(f) A record of the density for each cleaning material used during each month.

(g) A record of the date, time, and duration of each deviation, and for each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(h) The records required by § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(i) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent.

(j) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in § 63.3164, including the records specified in paragraphs (j)(1) through (4) of this section that apply to you.

(1) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH), as measured by Method 204A or F of appendix M to 40 CFR part 51, for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(2) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system, as measured by Method 204B or C of appendix M to 40 CFR part 51, at the inlet to the add-on control device, including a copy of the test report. Records of the mass of

TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(3) *Records for panel tests.* Records needed to document a capture efficiency determination using a panel test as described in § 63.3165(e), including a copy of the test report and calculations performed to convert the panel test results to percent capture efficiency values.

(4) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol, if applicable.

(k) The records specified in paragraphs (k)(1) and (2) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.3166.

(1) Records of each add-on control device performance test conducted according to §§ 63.3164 and 63.3166.

(2) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(l) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 63.3167 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(m) Records of the data and calculations you used to determine the transfer efficiency for primer-surfacer and topcoat application.

(n) A record of the work practice plans required by § 63.3094(b) and (c) and documentation that you are implementing the plan on a continuous basis.

§ 63.3131 In what form and for how long must I keep my records?

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

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence,

measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You may keep the records off site for the remaining 3 years.

Compliance Requirements for Adhesive, Sealer, and Deadener

§ 63.3150 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3151. The initial compliance period begins on the applicable compliance date specified in § 63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass average organic HAP content of the materials used each month for each group of materials for which an emission limitation is established in § 63.3090(c) and (d) or § 63.3091(c) and (d). The initial compliance demonstration includes the calculations according to § 63.3151 and supporting documentation showing that during the initial compliance period, the mass average organic HAP content for each group of materials was equal to or less than the applicable emission limits in § 63.3090(c) and (d) or § 63.3091(c) and (d).

§ 63.3151 How do I demonstrate initial compliance with the emission limitations?

You must separately calculate the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in § 63.3090(c) and (d) or § 63.3091(c) and (d). If every individual material used within a group of materials meets the emission limit for that group of materials, you may demonstrate compliance with that emission limit by documenting the name and the organic HAP content of each material used during the initial compliance period. If any individual material used within a group of materials exceeds the emission limit for that group of materials, you must determine the mass average organic HAP content according to the procedures of paragraphs (d) and (e) of this section.

(a) *Determine the mass fraction of organic HAP for each material used.*

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

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

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

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (e.g., 0.7638 truncates to 0.763).

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

(3) *Alternative method*. You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has

approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material*. You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence.

(5) *Solvent blends*. Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When neither test data nor manufacturer's data for solvent blends are available, you may use the default values for the mass fraction of organic HAP in the solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries, and you may only use Table 4 if the solvent blends in the

materials you use do not match any of the solvent blends in Table 3 and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence.

(b) *Determine the density of each material used*. Determine the density of each material used during the compliance period from test results using ASTM Method D1475-98 or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475-98 test results and the supplier's or manufacturer's information, the test results will take precedence.

(c) *Determine the volume of each material used*. Determine the volume (liters) of each material used during each month by measurement or usage records.

(d) *Determine the mass average organic HAP content for each group of materials*. Determine the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in § 63.3090(c) and (d) or § 63.3091(c) and (d), using Equations 1 and 2 of this section.

(1) Calculate the mass average organic HAP content of adhesive and sealer materials other than components of the glass bonding system used in the initial compliance period using Equation 1 of this section:

$$C_{\text{avg,as}} = \frac{\sum_{j=1}^r (\text{Vol}_{\text{as},j})(D_{\text{as},j})(W_{\text{as},j})}{\sum_{j=1}^r (\text{Vol}_{\text{as},j})(D_{\text{as},j})} \quad (\text{Eq. 1})$$

Where:

$C_{\text{avg,as}}$ = mass average organic HAP content of adhesives and sealers used, kg/kg.

$\text{Vol}_{\text{as},j}$ = volume of adhesive or sealer j used, liters.

$D_{\text{as},j}$ = Density of adhesive or sealer j used, kg per liter.

$W_{\text{as},j}$ = mass fraction of organic HAP in adhesive or sealer, j , kg/kg.

r = number of adhesives and sealers used.

(2) Calculate the mass average organic HAP content of deadener used in the initial compliance period using Equation 2 of this section:

$$C_{\text{avg,d}} = \frac{\sum_{m=1}^s (\text{Vol}_{\text{d},m})(D_{\text{d},m})(W_{\text{d},m})}{\sum_{m=1}^s (\text{Vol}_{\text{d},m})(D_{\text{d},m})} \quad (\text{Eq. 2})$$

Where:

$C_{\text{avg,d}}$ = mass average organic HAP content of deadener used, kg/kg.

$\text{Vol}_{\text{d},m}$ = volume of deadener, m , used, liters.

$D_{d,m}$ = density of deadener, m, used, kg per liter.

$W_{d,m}$ = mass fraction of organic HAP in deadener, m, kg/kg.

s = number of deadener materials used.

(e) *Compliance demonstration.* The mass average organic HAP content for the compliance period must be less than or equal to the applicable emission limit in § 63.3090(c) and (d) or § 63.3091(c) and (d). You must keep all records as required by §§ 63.3130 and 63.3131. As part of the Notification of Compliance Status required by § 63.3110, you must submit a statement that the coating operations were in compliance with the emission limitations during the initial compliance period because the mass average organic HAP content was less than or equal to the applicable emission limits in § 63.3090(c) and (d) or § 63.3091(c) and (d), determined according to this section.

§ 63.3152 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the mass average organic HAP content for each compliance period, determined according to § 63.3151(a) through (c), must be less than or equal to the applicable emission limit in § 63.3090(c) and (d) or § 63.3091(c) and (d). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in § 63.3150 is a compliance period consisting of that month.

(b) If the mass average organic HAP emission content for any compliance period exceeds the applicable emission limit in § 63.3090(c) and (d) or § 63.3091(c) and (d), this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(5).

(c) You must maintain records as specified in §§ 63.3130 and 63.3131.

Compliance Requirements for the Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Rates

§ 63.3160 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in

§ 63.3083. You must conduct a performance test of each capture system and add-on control device according to §§ 63.3164 and 63.3166 and establish the operating limits required by § 63.3093 no later than 180 days after the applicable compliance date specified in § 63.3083.

(2) You must develop and begin implementing the work practice plans required by § 63.3094(b), (c), and (e) no later than the compliance date specified in § 63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3161. The initial compliance period begins on the applicable compliance date specified in § 63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass of organic HAP emissions and volume of coating solids deposited in the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3164 and 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limit in § 63.3090(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3168; and documentation of whether you developed and implemented the work practice plans required by § 63.3094(b), (c), and (e).

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3093 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and CPM during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section.

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

(1) All emission capture systems, add-on control devices, and CPMS must be

installed and operating no later than the applicable compliance date specified in § 63.3083. You must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.3164 and 63.3166 and establish the operating limits required by § 63.3093 no later than the compliance date specified in § 63.3083.

(2) You must develop and begin implementing the work practice plans required by § 63.3094(b), (c), and (e) no later than the compliance date specified in § 63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3161. The initial compliance period begins on the applicable compliance date specified in § 63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass of organic HAP emissions and volume of coating solids deposited during the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3164 and 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limits in § 63.3091(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3168; and documentation of whether you developed and implemented the work practice plans required by § 63.3094(b), (c), and (e).

§ 63.3161 How do I demonstrate initial compliance?

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations must meet the applicable emission limitation in § 63.3090(a) or § 63.3091(a).

(b) *Compliance with operating limits.* Except as provided in § 63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3093,

using the procedures specified in §§ 63.3167 and 63.3168.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plans required by § 63.3094(b) and (c) during the initial compliance period, as specified in § 63.3130.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (o) of this section to demonstrate compliance with the applicable emission limit in § 63.3090(a) or § 63.3091(a). You may also use the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22) in making this demonstration.

(e) *Determine the mass fraction of organic HAP, density and volume used.* Follow the procedures specified in § 63.3151(a) through (c) to determine the mass fraction of organic HAP and the density and volume of each coating and thinner used during each month.

(f) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liter of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material, as specified in paragraphs (f)(1) and (2) of this section. If test results obtained according to paragraph (f)(1) of this section do not agree with the information obtained under paragraph (f)(2) of this section, the test results will take precedence.

(1) *ASTM Method D2697-86(1998) or D6093-97.* You may use ASTM Method D2697-86(1998) or D6093-97 to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

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

(g) *Determine the transfer efficiency for each coating.* You must determine the transfer efficiency for each primer-surfacer and topcoat coating using ASTM Method D5066-91(2001) or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22). Those guidelines include provisions for testing

representative coatings instead of testing every coating. You may assume 100 percent transfer efficiency for electrodeposition primer coatings, glass bonding primers, and glass bonding adhesives. For final repair coatings, you may assume 40 percent transfer efficiency for air atomized spray and 55 percent transfer efficiency for electrostatic spray and high volume, low pressure spray.

(h) *Calculate the total mass of organic HAP emissions before add-on controls.* Calculate the total mass of organic HAP emissions before consideration of add-on controls from all coatings and thinners used during each month in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations using Equation 1 of this section:

$$H_{BC} = A + B \quad (\text{Eq. 1})$$

Where:

H_{BC} = total mass of organic HAP emissions before consideration of add-on controls during the month, kg.

A = total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.

B = total mass of organic HAP in the thinners used during the month, kg, as calculated in Equation 1B of this section.

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

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

Where:

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

$\text{Vol}_{c,i}$ = total volume of coating, i, used during the month, liters.

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

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

m = number of different coatings used during the month.

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

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

Where:

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

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

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

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

n = number of different thinners used during the month.

(i) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions captured by the emission capture system and destroyed or removed by the add-on control device. Use the procedures in paragraph (j) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (k) of this section to calculate the organic HAP emission reduction.

(j) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balances.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the mass of organic HAP emission reduction for the controlled coating operation during the month using Equation 2 of this section. The calculation of mass of organic HAP emission reduction for the controlled coating operation during the month applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation served by the emission capture system and add-on control device during each month. For any period of time a deviation specified in § 63.3163(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, you must assume zero efficiency for the emission capture system and add-on control device. Equation 2 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_C = (A_C + B_C - H_{UNC}) \left(\frac{CE}{100} \times \frac{DRE}{100} \right) \quad (\text{Eq. 2})$$

Where:

H_C = mass of organic HAP emission reduction for the controlled coating operation during the month, kg.

A_C = total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 2A of this section.

B_C = total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg, as calculated in Equation 2B of this section.

H_{unc} = total mass of organic HAP in the coatings and thinners used during all deviations specified in § 63.3163(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 2C of this section.

CE = capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.3164 and 63.3165 to measure and record capture efficiency.

DRE = organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§ 63.3164 and 63.3166 to measure and record the organic HAP destruction or removal efficiency.

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

$$A_C = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 2A})$$

Where:

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

$\text{Vol}_{c,i}$ = total volume of coating, i, used during the month, liters.

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

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

m = number of different coatings used.

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

$$B_C = \sum_{j=1}^n (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 2B})$$

Where:

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

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

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

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

n = number of different thinners used.

(3) Calculate the mass of organic HAP in the coatings and thinners used in the controlled coating operation during deviations specified in § 63.3163(c) and (d), using Equation 2C of this section:

$$H_{unc} = \sum_{h=1}^q (\text{Vol}_h) (D_h) (W_h) \quad (\text{Eq. 2C})$$

Where:

H_{unc} = total mass of organic HAP in the coatings and thinners used during all deviations specified in § 63.3163(c) and (d) that occurred during the month in the controlled coating operation, kg.

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

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

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

q = number of different coatings or thinners.

(k) Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings and thinners used in the coating operation controlled by the solvent recovery system during each

month. Perform a liquid-liquid material balance for each month as specified in paragraphs (k)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (k)(7) of this section.

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

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

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

(4) Determine the density of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to § 63.3151(b).

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

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 3 of this section:

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^m \text{Vol}_i D_i W_{V_{c,i}} + \sum_{j=1}^n \text{Vol}_j D_j W_{V_{t,j}}} \quad (\text{Eq. 3})$$

Where:

R_v = volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

M_{VR} = mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

Vol_i = volume of coating, i , used in the coating operation controlled by the solvent recovery system during the month, liters.

D_i = density of coating, i , kg per liter.

$W_{V_{c,i}}$ = mass fraction of volatile organic matter for coating, i , kg volatile organic matter per kg coating.

Vol_j = volume of thinner, j , used in the coating operation controlled by the solvent recovery system during the month, liters.

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

$W_{V_{t,j}}$ = mass fraction of volatile organic matter for thinner, j , kg volatile organic matter per kg thinner.

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

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

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 4 of this section:

$$H_{CSR} = (A_{CSR} + B_{CSR}) \left(\frac{R_v}{100} \right) \quad (\text{Eq. 4})$$

Where:

H_{CSR} = mass of organic HAP emission reduction for the coating operation

controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg.

A_{CSR} = total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4A of this section.

B_{CSR} = total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4B of this section.

R_v = volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 3 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 4A of this section.

$$A_{CSR} = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 4A})$$

Where:

A_{CSR} = total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$\text{Vol}_{c,i}$ = total volume of coating, i , used during the month in the coating operation controlled by the solvent recovery system, liters.

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

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

m = number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, using Equation 4B of this section.

$$B_{CSR} = \sum_{j=1}^n (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 4B})$$

Where:

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

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

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

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

n = number of different thinners used.

(l) Calculate the total volume of coating solids deposited. Determine the total volume of coating solids deposited, liters, in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations using Equation 5 of this section:

$$V_{sdep} = \sum_{i=1}^m (\text{Vol}_{c,i}) (V_{s,i}) (TE_{c,i}) \quad (\text{Eq. 5})$$

Where:

V_{sdep} = total volume of coating solids deposited during the month, liters.

$\text{Vol}_{c,i}$ = total volume of coating, i , used during the month, liters.

$V_{s,i}$ = volume fraction of coating solids for coating, i , liter solids per liter coating, determined according to § 63.3161(f).

$TE_{c,i}$ = transfer efficiency of coating, i , determined according to § 63.3161(g).

m = number of coatings used during the month.

(m) Calculate the mass of organic HAP emissions for each month. Determine the mass of organic HAP emissions, kg, during each month, using Equation 6 of this section.

$$H_{HAP} = H_{BC} - \sum_{i=1}^q (H_{C,i}) - \sum_{j=1}^r (H_{CSR,j}) \quad (\text{Eq. 6})$$

Where:

H_{HAP} = total mass of organic HAP emissions for the month, kg.

H_{BC} = total mass of organic HAP emissions before add-on controls

from all the coatings and thinners used during the month, kg, determined according to paragraph (h) of this section.

$H_{C,i}$ = total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg, from Equation 2 of this section.

$H_{CSR,j}$ = total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 4 of this section.

q = number of controlled coating operations not using a liquid-liquid material balance.

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

(n) *Calculate the organic HAP emission rate for the month.* Determine the organic HAP emission rate for the month compliance period, kg organic HAP per liter coating solids deposited, using Equation 7 of this section:

$$H_{\text{rate}} = (H_{\text{HAP}}) / (V_{\text{sdep}}) \quad (\text{Eq. 7})$$

Where:

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

H_{HAP} = mass of organic HAP emissions for the month, kg, determined according to Equation 6 of this section.

V_{sdep} = total volume of coating solids deposited during the month, liters, from Equation 5 of this section.

(o) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations must meet the applicable emission limitation in § 63.3090(a) or § 63.3091(a). You must keep all records as required by §§ 63.3130 and 63.3131. As part of the Notification of Compliance Status required by § 63.3110, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3090(a) or § 63.3091(a) and you achieved the operating limits required by § 63.3093 and the work practice standards required by § 63.3094.

§ 63.3162 [Reserved]

§ 63.3163 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.3090(a) or § 63.3091(a), the organic HAP emission rate for each compliance period, determined according to the procedures in § 63.3161, must be equal to or less than the applicable emission limit in § 63.3090(a) or § 63.3091(a). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in § 63.3160 is a compliance period consisting of that month. You must perform the calculations in § 63.3161 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in § 63.3090(a) or § 63.3091(a), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(6).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.3093 that applies to you, as specified in Table 1 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(6).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation.

(d) You must meet the requirements for bypass lines in § 63.3168(b) for control devices other than solvent recovery systems for which you conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in § 63.3110(c)(6) and 63.3120(a)(6). For the purposes of completing the compliance calculations specified in § 63.3161(k), you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.3094. If you did not develop a work practice plan, if you did not implement the plan, or if you did

not keep the records required by § 63.3130(n), this is a deviation from the work practice standards that must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(6).

(f) If there were no deviations from the emission limitations, submit a statement as part of the semiannual compliance report that you were in compliance with the emission rate limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3090(a) or § 63.3091(a), and you achieved the operating limits required by § 63.3093 and the work practice standards required by § 63.3094 during each compliance period.

(g) During periods of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the startup, shutdown, and malfunction plan required by § 63.3100(f).

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

(i) [Reserved]

(j) You must maintain records as specified in §§ 63.3130 and 63.3131.

§ 63.3164 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3160 according to the requirements in § 63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

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

conditions during the test and explain why the conditions represent normal operation.

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

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.3165. You must conduct each performance test of an add-on control device according to the requirements in § 63.3166.

§ 63.3165 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.3160.

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

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

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

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

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the four procedures described in paragraphs (c) through (f) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time.

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

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

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

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

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

Where:

TVH_i = mass fraction of TVH in coating or thinner, i , used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = total volume of coating or thinner, i , used in the coating operation during the capture efficiency test run, liters.

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

n = number of different coatings and thinners used in the coating

operation during the capture efficiency test run.

(4) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run.

To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

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

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

Where:

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

TVH_{used} = total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

TVH_{uncaptured} = total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are

applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on

control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct, and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

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

Where:

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

TVH_{captured} = total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

TVH_{uncaptured} = total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Panel testing to determine the capture efficiency of flash-off or bake oven emissions.* You may determine the capture efficiency of flash-off or bake oven emissions using ASTM Method D5087-91(1994), ASTM Method D6266-00a, or the guidelines presented in "Protocol for Determining Daily Volatile

Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22). The results of these panel testing procedures are in units of mass of VOC per volume of coating solids deposited. These results must be converted to percent capture efficiency values using Equation 4 of this section:

$$CE_i = (P_i)(V_{\text{sdep},i}) / (VOC_i) \quad (\text{Eq. 4})$$

Where:

CE_i = capture efficiency for coating i for the flash-off area or bake oven for which the panel test is conducted, percent.

P_i = panel test result for coating i, kg of VOC per liter of coating solids deposited.

V_{sdep,i} = total volume of coating solids deposited for coating i during the month in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted, liters, from Equation 5 of this section.

VOC_i = total mass of VOC in coating i used during the month in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted, kg, from Equation 6 of this section.

(1) Calculate the total volume of coating solids deposited for each coating used during the month in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted using equation 5 of this section:

$$V_{\text{sdep},i} = (Vol_{c,i})(V_{s,i})(TE_{c,i}) \quad (\text{Eq. 5})$$

Where:

V_{sdep,i} = total volume of coating solids deposited for coating i during the month in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted, liters.

Vol_{c,i} = total volume of coating, i, used during the month in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted, liters.

$V_{s,i}$ = volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to § 63.3161(f).

$TE_{c,i}$ = transfer efficiency of coating, i, in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to § 63.3161(g).

(2) Calculate the total mass of VOC in each coating used during the month in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted, kg, using Equation 6 of this section:

$$VOC_i = (Vol_{c,i})(D_{c,i})(Wvoc_{c,i}) \quad (\text{Eq. 6})$$

Where:

VOC_i = total mass of VOC in coating i used during the month in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted, kg.

$Vol_{c,i}$ = total volume of coating i used during the month in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted, liters.

DC = density of coating i, kg coating per liter coating, determined according to § 63.3151(b).

$Wvoc_{c,i}$ = mass fraction of VOC in coating i, kg organic HAP per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (docket A-2001-22).

(f) *Alternative capture efficiency procedure.* As an alternative to the procedures specified in paragraphs (c) through (e) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

§ 63.3166 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.3160. You must conduct three test runs as specified in § 63.7(e)(3), and each test run must last at least 1 hour.

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

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

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

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. The ASME PTC 19.10-1981 may be used as an alternative to Method 3B.

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

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

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

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million by volume (ppmv) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppmv or less at the control device outlet.

(3) Use Method 25A if the add-on control device is not an oxidizer.

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

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

of the inlet emissions and total all of the outlet emissions.

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

Where:

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

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

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

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

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

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

Where:

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

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

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

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

§ 63.3167 How do I establish the add-on control device operating limits during the performance test?

During the performance test required by § 63.3160 and described in §§ 63.3164 and 63.3166, you must establish the operating limits required by § 63.3193 according to this section, unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.3193.

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

(1) During the performance test, you must monitor and record the combustion temperature at least once

every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

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

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

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

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

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

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

(ii) Monthly inspection of the oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjustment of the

equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed and conduct a new performance test to determine destruction efficiency according to § 63.3166.

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

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

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

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

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

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

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

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

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

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

minutes during each of the three runs of the performance test.

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

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.3165(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by § 63.3160 and described in §§ 63.3164 and 63.3165, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

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

§ 63.3168 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

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

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

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

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

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

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at

all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

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

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

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

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

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

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or

a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

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

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

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.3120.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used to treat desorbed concentrate streams from concentrators or carbon adsorbers), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install gas temperature monitors both upstream and downstream of the catalyst bed. The temperature monitors must be in the gas stream immediately before and after the catalyst bed to measure the temperature difference across the bed.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a)(1) through (6) and (c)(3)(i) through (vii) of this section for each gas temperature monitoring device.

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

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

(iii) Shield the temperature sensor system from electromagnetic

interference and chemical contaminants.

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

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

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

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

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

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent, capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

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

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a)(1) through (6) and (e)(1) and (2) of this section.

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

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

(f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or

rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a)(1) through (6) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a)(1) through (6) and (f)(2)(i) through (vii) of this section.

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

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

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

(iv) Check the pressure tap daily.

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

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

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

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

(1) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (6) and (g)(1)(i) through (iv) of this section.

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

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

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

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

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a)(1) through (6) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure tap(s) in a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

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

(iii) Check pressure tap pluggage daily.

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

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

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

Compliance Requirements for the Combined Primer Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Rates and the Separate Electrodeposition Primer Emission Rates

§ 63.3170 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of § 63.3160.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of § 63.3160.

§ 63.3171 How do I demonstrate initial compliance?

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations must meet the applicable emission limitation in § 63.3090(b) or § 63.3091(b); and the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in § 63.3092(a) or (b).

(b) *Compliance with operating limits.* Except as provided in § 63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3093, using the procedures specified in §§ 63.3167 and 63.3168.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plans required by § 63.3094(b) and (c)

during the initial compliance period, as specified in § 63.3130.

(d) *Compliance with emission limits.* You must follow the procedures in § 63.3161(e) through (n), excluding materials used in electrodeposition primer operations, to demonstrate compliance with the applicable emission limit in § 63.3090(b) or § 63.3091(b). You must follow the procedures in paragraph (e) of this section to demonstrate compliance with the emission limit in § 63.3092(a), or paragraphs (f) through (g) of this section to demonstrate compliance with the emission limitations in § 63.3092(b).

(e) *Determine the mass fraction of each organic HAP in each material used in the electrodeposition primer operation.* You must determine the mass fraction of each organic HAP for each material used in the electrodeposition primer operation during the compliance period by using one of the options in paragraphs (e)(1) through (3) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of each organic HAP.

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

(3) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (e)(1) and (2) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. If there is a disagreement between such information and results of a test conducted according to paragraph (e)(1) or (2) of this section, then the test method results will take precedence.

(f) *Capture of electrodeposition bake oven emissions.* You must show that the electrodeposition bake oven meets the criteria in sections 5.3 through 5.5 of Method 204 of appendix M to 40 CFR part 51 and directs all of the exhaust gases from the bake oven to an add-on control device.

(g) *Control of electrodeposition bake oven emissions.* Determine the efficiency of each control device on each electrodeposition bake oven using the procedures in §§ 63.3164 and 63.3166.

(h) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations must meet the applicable emission limitation in § 63.3090(b) or § 63.3091(b); the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in § 63.3092(a) or (b). You must keep all records as required by §§ 63.3130 and 63.3131. As part of the Notification of Compliance Status required by § 63.3110, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations was less than or equal to the applicable emission limit in § 63.3090(b) or § 63.3091(b), and the organic HAP emissions from the electrodeposition primer operation met the applicable emissions limitations in § 63.3092(a) or (b), and you achieved the operating limits required by § 63.3093 and the work practice standards required by § 63.3094.

§ 63.3172 [Reserved]

§ 63.3173 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.3090(b) or § 63.3091(b), the organic HAP emission rate for each compliance period determined according to the procedures in § 63.3171 must be equal to or less than the applicable emission limit in § 63.3090(b) or § 63.3091(b). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in § 63.3170 is a compliance period consisting of that month. You must perform the calculations in § 63.3171 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in § 63.3090(b) or § 63.3091(b), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(6).

(c) You must meet the requirements of § 63.3163(c) through (j).

Other Requirements and Information

§ 63.3175 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, EPA, or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

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

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

(1) Approval of alternatives to the work practice standards in § 63.3094 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.3176 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, the General Provisions of this part, and in this section as follows:

Add-on control device means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Add-on control device efficiency means the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced into the control device, expressed as a percentage.

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

Anti-chip coating means a specialty type of coating designed to reduce stone chipping damage. It is applied on selected vehicle surfaces that are exposed to impingement by stones and other road debris. It is typically applied

after the electrodeposition primer and before the topcoat coating materials (may be used as a type of primer-surfacer). Anti-chip coatings are included in the primer-surfacer operation.

As applied means the condition of a coating material after any dilution as it is being applied to the substrate.

As supplied means the condition of the coating material as provided by the manufacturer to the user, either before or after reducing for application.

Automobile means a motor vehicle designed to carry up to eight passengers, excluding vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property. See also *Light-duty truck*.

Automobile and/or light-duty truck assembly plant means facilities involved primarily in assembly of automobiles and light-duty trucks, including coating facilities and processes.

Basecoat/clearcoat means a topcoat system applied to exterior and selected interior vehicle surfaces primarily to provide an aesthetically pleasing appearance and acceptable durability performance. It consists of a layer of pigmented basecoat color coating, followed directly by a layer of a clear or semitransparent coating. It may include multiple layers of color coats or tinted clear materials.

Blackout coating means a type of specialty coating applied on selected vehicle surfaces (including areas of the engine compartment visible through the grill, and window and pillar trim) to provide a cosmetic appearance. Typically black or dark gray color. Blackout coating may be included in either the primer-surfacer or topcoat operations.

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

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

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

Catalytic oxidizer means a device for oxidizing pollutants or waste materials via flame and heat incorporating a catalyst to aid the combustion at lower operating temperature.

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

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

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

Coating solids means the nonvolatile portion of the coating that makes up the dry film.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart; used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Day tank means tank with agitation and pumping system used for mixing and continuous circulation of coatings from the paint storage area to the spray booth area of the paintshop.

Deadener means a specialty coating applied to selected vehicle underbody

surfaces for the purpose of reducing the sound of road noise in the passenger compartment.

Deposited solids means the solids component of the coating remains on the substrate or object being painted.

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

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

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

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

Electrodeposition primer or electrocoating primer means a process of applying a protective, corrosion-resistant waterborne primer on exterior and interior surfaces that provides thorough coverage of recessed areas.

It is a dip coating method that uses an electrical field to apply or deposit the conductive coating material onto the part. The object being painted acts as an electrode that is oppositely charged from the particles of paint in the dip tank. Also referred to as E-Coat, Uni-Prime, and ELPO Primer.

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

Final repair means the operations performed and coating(s) applied outside of the paint shop to completely-assembled motor vehicles or in low-bake off-line operations within the paint shop to correct damage or imperfections in the coating.

Flash-off area means the portion of a coating process between the coating application station and the next coating application station or drying oven where solvent begins to evaporate from the coated vehicle.

Glass bonding adhesive means an adhesive used to bond windshield or other glass to an automobile or light-duty truck body.

Glass bonding primer means a primer applied to windshield or other glass, or to body openings to prepare the glass or body openings for the application of glass bonding adhesive, or the installation of adhesive bonded glass.

Guide coat means *Primer-surfacer*.

In-line repair operation means the process of surface preparation and application of coatings on the paint line in the paint shop to correct damage or imperfections in the coating finish. Also referred to as high bake repair or high bake reprocess.

Light-duty truck means vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property with gross vehicle weight rating of 8,500 lbs or less.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §§ 63.3151 and 63.3161. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

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

Organic HAP content means the mass of organic HAP per mass of coating material.

Paint shop means that area of an automobile assembly plant in which vehicle bodies are cleaned, phosphated, and coatings (including electrodeposition primer, primer-surfacer, topcoat, and deadener) are applied.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Primer-surfacer means an intermediate protective coating applied on the electrodeposition primer and under the topcoat. It provides adhesion, protection, and appearance properties to the total finish. Also called a guide coat or surfacer.

Purge/clean operation means the process of flushing paint out and cleaning the spray lines when changing colors or to remove undesired material. It includes use of air and solvents to clean the lines.

Purge capture means the capture of purge solvent and materials into a closed collection system immediately after purging the system. It is used to

prevent the release of organic HAP emissions and includes the disposal of the captured purge material.

Purge material means the coating and associated cleaning solvent materials expelled from the spray system during the process of cleaning the spray lines and applicators when color-changing or to maintain the cleanliness of the spray system.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

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

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

Spraybooth means a ventilated structure housing automatic and/or manual spray application equipment for coating operations. Includes facilities for the capture and entrapment of particulate overspray.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called "depainting."

Surfacer means *Primer-surfacer*.

Tack-wipe means solvent impregnated cloth used to remove dust from surfaces prior to application of coatings.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thermal oxidizer means a device for oxidizing air pollutants or waste materials via flame and heat.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Topcoat means the final coating system applied to provide the final color

and/or a protective finish. May be a Monocoat color or Basecoat/Clearcoat system.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Transfer efficiency means the ratio of the amount of coating solids deposited onto the surface of the object to the total amount of coating solids sprayed while applying the coating to the object.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

Tables to Subpart IIII of Part 63

TABLE 1 TO SUBPART IIII OF PART 63.—OPERATING LIMITS FOR CAPTURE SYSTEMS AND ADD-ON CONTROL DEVICES
 [If you are required to comply with operating limits by § 63.3093, you must comply with the applicable operating limits in the following table]

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by
1. thermal oxidizer	a. the average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.3167(a).	i. collecting the combustion temperature data according to § 63.3168(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. catalytic oxidizer	a. the average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to § 63.3167(b); and either. b. ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to § 63.3167(b)(2); or. c. develop and implement an inspection and maintenance plan according to § 63.3167(b)(4).	i. collecting the temperature data according to § 63.3168(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit. i. collecting the temperature data according to § 63.3168(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature difference at or above the temperature difference limit; or i. maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.3167(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.

TABLE 1 TO SUBPART IIII OF PART 63.—OPERATING LIMITS FOR CAPTURE SYSTEMS AND ADD-ON CONTROL DEVICES—
Continued

[If you are required to comply with operating limits by § 63.3093, you must comply with the applicable operating limits in the following table]

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by
3. carbon adsorber	<p>a. the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to § 63.3167(c).</p> <p>b. the temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to § 63.3167(c).</p>	<p>i. measuring the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle according to § 63.3168(d); and</p> <p>ii. maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.</p> <p>i. measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to § 63.3168(d); and</p> <p>ii. operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.</p>
4. condenser	<p>a. the average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to § 63.3167(d).</p>	<p>i. collecting the condenser outlet (product side) gas temperature according to § 63.3168(e);</p> <p>ii. reducing the data to 3-hour block averages; and</p> <p>iii. maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.</p>
5. concentrators, including zeolite wheels and rotary carbon adsorbers.	<p>a. the average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to § 63.3167(e).</p> <p>b. the average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to § 63.3167(e).</p>	<p>i. collecting the temperature data according to § 63.3168(f);</p> <p>ii. reducing the data to 3-hour block averages; and</p> <p>iii. maintaining the 3-hour average temperature at or above the temperature limit.</p> <p>i. collecting the pressure drop data according to § 63.3168(f); and</p> <p>ii. reducing the pressure drop data to 3-hour block averages; and</p> <p>iii. maintaining the 3-hour average pressure drop at or above the pressure drop limit.</p>
6. emission capture system that is a PTE.	<p>a. the direction of the air flow at all times must be into the enclosure; and either.</p> <p>b. the average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or.</p> <p>c. the pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of appendix M to 40 CFR part 51.</p>	<p>i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.3168(g)(1) or the pressure drop across the enclosure according to § 63.3168(g)(2); and</p> <p>ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.</p> <p>i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.3168(g)(1) or the pressure drop across the enclosure according to § 63.3168(g)(2); and</p> <p>ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.</p> <p>i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.3168(g)(1) or the pressure drop across the enclosure according to § 63.3168(g)(2); and</p> <p>ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.</p>
7. emission capture system that is not a PTE.	<p>a. the average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.3167(f).</p>	<p>i. collecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.3168(g);</p> <p>ii. reducing the data to 3-hour block averages; and</p> <p>iii. maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.</p>

TABLE 2 TO SUBPART IIII OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIII OF PART 63
 [You must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applicable to subpart IIII	Explanation
§ 63.1(a)(1)–(14)	General Applicability	Yes	Applicability to subpart IIII is also specified in § 63.3181.
§ 63.1(b)(1)–(3)	Initial Applicability Determination	Yes	
§ 63.1(c)(1)	Applicability After Standard Established	Yes	Area sources are not subject to or subpart IIII.
§ 63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources	No	
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes	
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes	
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.3176.
§ 63.3(a)–(c)	Units and Abbreviations	Yes	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes	
§ 63.4(b)–(c)	Circumvention/Severability	Yes	
§ 63.5(a)	Construction/Reconstruction	Yes	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	§ 63.3083 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	§ 63.3083 specifies the compliance dates.
§ 63.6(e)(1)–(2)	Operation and Maintenance	Yes	Only sources using an add-on control device to comply with the standard must complete start-up, shutdown, and malfunction plans.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	Yes		Applies only to sources using an add-on control device to comply with the standards.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes	Subpart IIII does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(g)(1)–(3)	Use of an Alternative Standard	Yes	
§ 63.6(h)	Compliance With Opacity/Visible Emission Standards.	No	
§ 63.6(i)(1)–(16)	Extension of Compliance	Yes	
§ 63.6(j)	Presidential Compliance Exemption	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.3164 and 63.3166.
§ 63.7(a)(1)	Performance Test Requirements—Applicability	Yes	
§ 63.7(a)(2)	Performance Test Requirements—Dates	Yes		Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. § 63.3160 specifies the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2).
§ 63.7(a)(3)	Performance Tests Required By the Administrator	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.7(b)–(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing Conditions During Test.	Yes	
§ 63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§ 63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in § 63.3168.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart IIII does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes	

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

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

Citation	Subject	Applicable to subpart III	Explanation
§ 63.8(c)(1)–(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for CMS operations and maintenance are specified in § 63.3168.
§ 63.8(c)(4)	CMS	No	§ 63.3168 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply with the standards.
§ 63.8(c)(5)	COMS	No	Subpart III does not have opacity or visible emission standards.
§ 63.8(c)(6)	CMS Requirements	No	§ 63.3168 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply with the standards.
§ 63.8(c)(7)	CMS Out-of-Control Periods	No	
§ 63.8(c)(8)	CMS Out-of-Control Periods Reporting	No	§ 63.3120 requires reporting of CMS out-of-control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart III does not require the use of continuous emissions monitoring systems.
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart III does not require the use of continuous emissions monitoring systems.
§ 63.8(g)(1)–	Data Reduction	No	§§ 63.3167 and (5) 63.3168 specify monitoring data reduction.
§ 63.9(a)–(d)	Notification Requirements	Yes	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§ 63.9(f)	Notification of Visible Emissions/ Opacity Test	No	Subpart III does not have opacity or visible emission standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart III does not require the use of continuous emissions monitoring systems.
§ 63.9(h)	Notification of Compliance Status	Yes	§ 63.3110 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes	
§ 63.9(j)	Change in Previous Information	Yes	
§ 63.10(a)	Recordkeeping/Reporting —Applicability and General Information.	Yes	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional are requirements specified in §§ 63.3130 and 63.3131.
§ 63.10(b)(2)(i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for startup, shutdown, and malfunction records only apply to capture systems and add-on control devices used to comply with the standards.
§ 63.10(b)(2)(vi)–(xi)	.....	Yes	
§ 63.10(b)(2)(xii)	Records	Yes	
§ 63.10(b)(2)(xiii)	.....	No	Subpart III does not require the use of continuous emissions monitoring systems.
§ 63.10(b)(2)(xiv)	.....	Yes	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes	
§ 63.10(c)(7)–(8)	.....	No	The same records are required in § 63.3120(a)(6).
§ 63.10(c)(9)–(15)	.....	Yes	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.3120.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.3120(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart III does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to capture systems and add-on control devices used to comply with the standards.

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

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

Citation	Subject	Applicable to subpart III	Explanation
§ 63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart III does not require the use of continuous emissions monitoring systems.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	§ 63.3120(b) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart III does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§ 63.11	Control Device Requirements/Flares	No	Subpart III does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes	
§ 63.13	Addresses	Yes	Yes
§ 63.14	Incorporation by Reference	Yes	
§ 63.15	Availability of Information/Confidentiality	Yes	

TABLE 3 TO SUBPART III OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS
[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data]

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

TABLE 4 TO SUBPART III OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR PETROLEUM SOLVENT GROUPS ^a
[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data]

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic ^b	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic ^c	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

^a Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart, and you only know whether the blend is aliphatic or aromatic.

^b e.g., Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

^c e.g., Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

PART 264—[AMENDED]

1. The authority citation for part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, 6925, 6927, 6928(h), and 6974.

2. Section 264.1050 is amended by adding paragraph (h) to read as follows:

§ 264.1050 Applicability.

* * * * *

(h) Purged coatings and solvents from automobile and light-duty truck, separate non-body plastic parts, and separate non-body metal parts surface coating operations at facilities subject to

the national emission standards for hazardous air pollutants (NESHAP) at 40 CFR part 63, subpart IIII, are not subject to the requirements of this subpart.

* * * * *

PART 265—[AMENDED]

1. The authority citation for part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6906, 6912, 6922, 6923, 6924, 6925, 6935, 6936, and 6937, unless otherwise noted.

2. Section 265.1050 is amended by adding paragraph (g) to read as follows:

§ 265.1050 Applicability.

* * * * *

(g) Purged coatings and solvents from automobile and light-duty truck, separate non-body plastic parts, and separate non-body metal parts surface coating operations at facilities subject to the national emission standards for hazardous air pollutants (NESHAP) at 40 CFR part 63, subpart IIII, are not subject to the requirements of this subpart.

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