



# **National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Plastic Parts and Products-- Summary of Public Comments and Responses on Proposed Rule**



**NESHAP**

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**National Emission Standards for Hazardous Air Pollutants (NESHAP):  
Surface Coating of Plastic Parts and Products--Summary of Public  
Comments and Responses on Proposed Rule**

U.S. Environmental Protection Agency  
Office of Air Quality Planning and Standards  
Emission Standards Division  
Research Triangle Park, North Carolina 27711

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## 1.0 INTRODUCTION

On December 4, 2002, the U.S. Environmental Protection Agency (EPA) proposed national emission standards for hazardous air pollutants (NESHAP) for Surface Coating of Plastic Parts and Products. The proposed rule fulfills the requirements of the Clean Air Act (CAA), which requires EPA to regulate emissions of hazardous air pollutants (HAP) listed in section 112(b) of the CAA.

This document contains summaries of the public comments that EPA received on the December 4, 2002 proposal to establish NESHAP for Surface Coating of Plastic Parts and Products. In this document, EPA responds to the public comments. This summary of public comments and EPA responses serves as the basis for revisions made to the Surface Coating of Plastic Parts and Products NESHAP between proposal and promulgation.

## 2.0 PUBLIC COMMENTS

The EPA received 25 comment letters for the December 4, 2002 proposed rule before the comment period closed on February 3, 2003. These comments are contained in category IV-D of Docket ID No. OAR-2002-0074 (formerly Docket No. A-99-12). Four comments were received shortly after the February 3, 2003 deadline. These comments are contained in category IV-G of the same docket. The commenter, affiliation, and item number in Docket ID No. OAR-2002-0074 are listed in Table 1.

**TABLE 1. DOCKET ID NO. OAR-2002-0074  
CATEGORY: IV-D**

Document Number	Date Received in Docket	Commenter, Address, Title or Description, etc.	Date of Document
IV-D-01	01-13-03	D. Thorson, Plant Engineer, Strongwell, Chatfield, MN	01-10-03
IV-D-02	01-28-03	T.P. Feldman, Vice President, Government Affairs, National Electrical Manufacturers Assoc. (NEMA), Rosslyn, VA.	02-01-03
IV-D-03	01-31-03	V. Ughetta, Director, Stationary Sources, Alliance Automobile Manufacturers, Washington, DC.	01-31-03
IV-D-04	01-31-03	E.J. Dey, Industrial Engineer/Environmental Compliance Officer, FM Corporation, Rogers, AR.	01-23-03
IV-D-05	01-31-03	D.R. Schregardus, Deputy Assistant Secretary of the Navy (Environment), Washington, DC.	01-31-03

**TABLE 1. DOCKET ID NO. OAR-2002-0074 (CONTINUED)  
CATEGORY: IV-D**

Document Number	Date Received in Docket	Commenter, Address, Title or Description, etc.	Date of Document
IV-D-06	01-31-03	A. McMahon, Counsel, General Electric Company (GE), Mount Vernon, IN.	01-31-03
IV-D-07	02-03-03	C. Kedrowski, Regulatory Affairs Specialist, 3M Medical Department Corporate Toxicology, St. Paul, MN.	01-31-03
IV-D-08	02-03-03	T. Norman, Sr. Engineer, American Airlines Maintenance and Engineering Center, Tulsa, OK.	01-31-01
IV-D-09	02-03-03	R.M. Clarke, President, Truck Manufacturers Association, Washington, DC.	02-03-03
IV-D-10	02-03-03	S.F. Belcher, Managing Director, Environmental Affairs and Assistant General Counsel, Air Transport Association of America, Washington, DC.	02-03-03
IV-D-11	02-03-03	J. Trask, Motor and Equipment Manufacturers Association.	02-03-03
IV-D-12	02-03-03	K. Heyob, Associate Chief Engineer, Honda of America Manufacturing, Marysville, OH.	02-03-03
IV-D-13	02-03-03	K. Odette, Associate Director of Government Affairs, American Composites Manufacturers Association, Arlington, VA.	02-03-03
IV-D-14	02-03-03	R. J. Nelson, Senior Director, Environmental Affairs and A. A. Keane, Counsel, Government Affairs, The National Paint and Coatings Association (NPCA).	02-03-03
IV-D-15	02-03-03	J. Sell, NPCA Senior Counsel, Addendum to comments.	02-03-03
IV-D-16	02-03-03	B. Juris, Supervisor, VOC Control Unit, Engineering Unit, Ohio EPA-DAPC, Columbus, OH.	02-03-03

**TABLE 1. DOCKET ID NO. OAR-2002-0074 (CONTINUED)  
CATEGORY: IV-D**

Document Number	Date Received in Docket	Commenter, Address, Title or Description, etc.	Date of Document
IV-D-17	02-03-03	J. M. Pattok, President, J. M. Pattok & Associates, Orlando, FL.	01-31-03
IV-D-18	02-03-03	C. Johnson, Deputy Commissioner, Office of Air & Waste Management, NY State Department of Environmental Conservation, Albany, NY.	01-31-03
IV-D-19	02-03-03	J. McKnight, Director, Environmental & Safety Compliance, National Marine Manufacturers Association, Washington, DC.	02-03-03
IV-D-20	02-03-03	M. C. Frank, Director of Regulatory Affairs, The Boeing Company, Arlington, VA.	01-30-03
IV-D-21	02-03-03	J. P. McKeon, Assistant Director, Technical Advisory Services Division, Business Assistance Unit, Albany, NY.	02-03-03
IV-D-22	01-28-03	B. Nelson, Facility Engineer, Kawasaki Motors Manufacturing	01-28-03
IV-D-23	01-28-03	D.C. Anderson, Senior Industrial Engineer, Lexamar Corp.	01-28-03
IV-D-24	02-03-03	P.A. Bennett, Jr., Corporate HSE Director, Molded Fiber Glass Companies	02-03-03
IV-D-25	02-03-03	M. Shanahan, Chairman, SBO/SBAP National Steering Committee, Columbus, OH	02-03-03

**TABLE 1. DOCKET ID NO. OAR-2002-0074  
CATEGORY: IV-G**

<b><u>Document Number</u></b>	<b><u>Date Received in Docket</u></b>	<b><u>Commenter, Address, Title or Description, etc.</u></b>	<b><u>Date of Document</u></b>
IV-G-01	02-04-03	B. A. Hopkins, Vice President, Standards and Education, Recreation Vehicle Industry Association (RVIA).	02-03-03
IV-G-02	02-04-03	G. Cohen, Executive Director, RADTECH, Chevy Chase, MD.	02-04-03
IV-G-03	02-06-03	R. L. Wright, Staff Engineer, Ashland Inc., Columbus, OH.	01-29-03
IV-G-04	02-07-03	L. Joyner, Manager, Safety and Regulatory Compliance, Hatteras, New Bern, NC.	01-31-03

### 3.0 MACT FLOOR

Comment: Two commenters (IV-D-03, IV-D-16) questioned EPA's approach to divide HAP emissions evenly among the spray booth, flash-off, and curing ovens for those facilities that did not supply specific information. The commenters (IV-D-03, IV-D-16) argued that the majority of emissions occur in the spray booth. One commenter (IV-D-16) stated that according to AP-42, Section 4.2.2.14.2 pertaining to coating plastic surfaces of business machines, "... for an average coating operation, about 80 percent is emitted from the spray booth, 10 percent from flashoff, and 10 percent from the oven or drying area." Both commenters state that these estimates affect the cost of add-on control, baseline emissions, and HAP reductions from the rule.

One of the commenters (IV-D-03) also questioned EPA's assumption that a permanent total enclosure has a 100-percent capture efficiency and noted that such an assumption can have a major impact on the emission level for a facility and on the level of the proposed floor. The commenter (IV-D-03) argued that these two assumptions could have understated the HAP emissions of some facilities by as much as 30 percent, but provided no supporting analysis for this statement.

Response: The assumption used in the MACT analysis that a permanent total enclosure has a capture efficiency of 100 percent is consistent with the test methods that are specified in the final rule. According to EPA Method 204 of Appendix M to 40 CFR part 51, a facility may assume that an enclosure has 100-percent capture efficiency if it meets the definition of a permanent total enclosure. Otherwise, a facility must measure the actual capture efficiency of the enclosure. In the MACT floor analysis, we assumed that an enclosure would meet the definition of a permanent total enclosure if a coating operation was described as "fully enclosed" in the survey response, and there was no actual measure of the capture efficiency. Whenever a facility reported actual capture efficiency data, we used their data rather than the 100-percent assumption. This 100-percent assumption was made in only a

few cases, because only a few facilities reported full enclosure. In addition, as indicated in the MACT Floor memo, we reviewed facilities in the floors for each subcategory prior to proposal, and adjusted the capture rate for three facilities that reported full enclosure but have conveyORIZED processes with large openings in the enclosures. A 65-percent capture assumption was made for these facilities based on test data for one of them.

We have reviewed those MACT floor facilities that use emission capture systems and add-on controls to see if changing the assumptions in the percent of emissions that occur in each of the three areas (application, flash-off, and curing) or capture efficiency would affect the results of the MACT floor analysis. No facilities in the assembled on-road vehicle (AORV) subcategory use add-on controls. Only two facilities among the 21 facilities in the general-use MACT floor use add-on controls; the data for one facility (PPP121) is confidential business information (CBI). At the second facility (PPP222), the coating application, flash-off, and curing operations are fully enclosed and vented to a control device. For this facility, changing the assumptions would have no effect on emissions and the MACT floor. Changing the assumptions for the one facility that is CBI would also have no effect on the general use MACT floor.

One facility (PPP530) in the automotive lamp subcategory has add-on controls for some, but not all, of the coating operations. For the controlled coating operations, at least two of the three areas (e.g., application and curing) are fully enclosed and vented to the control device. The controlled areas represent 67 percent of emissions using the assumptions in the original MACT floor analysis, or 90 percent of emissions using the emission profile from AP-42 (80 percent of emissions from curing and 10 percent each from flash-off and curing). Changing the assumptions for the controlled coating operations (i.e., from 67 percent of emissions captured to 90 percent) at this one facility does not affect the outcome of the MACT floor analysis for this subcategory.

Three facilities in the thermoplastic olefin (TPO) subcategory use add-on controls. For two facilities (PPP124 and ASC0009), detailed capture efficiency data were provided by the commenters and these data are reflected in the final emission limits for this subcategory. The third facility (PPP447B) has an add-on control for some, but not all, of the coating operations. As described in the previous paragraph for the automotive lamp subcategory, changing the assumptions for the controlled

coating operations at the third facility does not affect the outcome of the MACT floor analysis for this subcategory.

Comment: One commenter (IV-D-03) questioned the fact that EPA found that one of the floor facilities in the general use subcategory only achieved 65 percent capture efficiency despite the use of a full enclosure. The commenter (IV-D-03) also questioned EPA's assumption of 66-percent capture efficiency for emissions from cleaning operations, unless the capture efficiency was specified by the facility. The commenter (IV-D-03) noted that they have performed analyses over the past several years that show that these assumptions can affect the accuracy of the facility data used to develop the MACT limits and the limits themselves.

Response: As noted in the response to the previous comment in this section, we assumed 100-percent capture efficiency if a coating operation was fully enclosed unless other information, such as a measure of actual capture efficiency were available. In the case of the floor facility described by the commenter (ASC0009), subsequent contact with the facility indicated that the enclosure did not meet the definition of a total enclosure because of large openings to allow passage of conveyors, and the capture efficiency used in the MACT floor analysis was based on a performance test. (See Docket item II-E-12.) In addition, a more detailed emission estimate for this facility was provided by the commenter (IV-D-03) and this emission estimate was used in determining the final emission limit for the TPO subcategory, which is the subcategory in which this facility is included.

Very few facilities in the plastic parts database reported any use of capture systems and add-on controls for cleaning operations and the assumption used for the capture efficiency of enclosures on cleaning operations would not affect the results of the MACT analysis. As described in section 6.2 of the MACT Floor Memo<sup>1</sup>, if a facility did not provide a specific measurement of capture efficiency, we used the type of enclosure reported to determine an assumed capture efficiency for calculating the overall HAP reduction achieved for the add-on control. A PTE was assumed to achieve 100 percent

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<sup>1</sup>Memorandum from Christy Burlew, Eastern Research Group (ERG), Morrisville, to Kim Teal, U.S. EPA/OAQPS/CCPG, September 2002; Determination of Maximum Achievable Control Technology (MACT) Floor for New and Existing Sources in the General Use Coating, Thermoplastic Olefin (TPO) Coating, and Headlamp Coating Subcategories of the Plastic Parts and Products Surface Coating Source Category.

capture. For the purposes of analysis, those facilities that indicated on the ICR survey that an operation was “fully enclosed” was assumed to have a PTE. A three-quarter enclosure was assumed to achieve 66 percent capture. Since controlled cleaning operations were not reported as fully enclosed, we assumed 66 percent capture.

Comment: One commenter (IV-D-24) requested that the rule be revised to either exempt solvent blends from HAP limits or change the MACT floors to reflect the default HAP contents. The commenter (IV-D-24) noted that when facilities provided EPA with coating data they were not aware that blended solvents contained HAP, and therefore did not report any HAP content in these materials. Therefore, using the default HAP contents in the rule to determine compliance is not consistent with the MACT floor.

One commenter (IV-D-23) requested that EPA verify that the manner in which solvent blends were accounted for in the database is consistent with the default HAP fractions for solvent blends in Tables 3 and 4 of the rule. Another commenter (IV-G-01) estimates that the Recreational Vehicle Industry Association (RVIA) database they provided to EPA does not address solvent blends and may underestimate HAP emissions per lb solids by 5 percent. Another commenter (IV-D-13) noted that solvent blends were not considered in setting the MACT floor and suggested that either the proposed emission limits should be adjusted to reflect the HAP contained in solvent blends; or these solvent blends should be exempt from the emission limits.

Response: When we analyzed the data provided to us in establishing the MACT floor for the general use, automotive lamp, and TPO subcategories, we accounted for the HAP in solvent blends, consistent with Tables 3 and 4 in the final rule. Therefore, no adjustments to the proposed limits are necessary to account for the HAP in solvent blends.

For the AORV subcategory, the proposed limits are based on data provided to EPA by the RVIA. We have reviewed more detailed HAP data from EPA surveys for four sources in the AORV subcategory. Based on these data, the HAP from solvent blends accounts for only about 0.1 percent of all HAP emitted from the coating operations at these facilities. Therefore, no adjustment in the emission limit for the AORV subcategory is needed to account for the HAP in solvent blends that will be included in the compliance calculations.

Comment: Two commenters (IV-D-03, IV-D-15, IV-D-23) suggested that the survey data were not complete enough to accurately portray the facilities in the TPO subcategory and their cleaning operations. One commenter (IV-D-03) noted that throughout the rule development process, EPA has had to revise the MACT floor database to address concerns from stakeholders about the quality of the data and to reconcile differences among data from separate surveys for different source categories (i.e., plastic parts, metal parts, reinforced plastic composites, and automobile and light duty truck manufacturing). The other commenter (IV-D-15) claimed that EPA has failed to incorporate additional information provided by stakeholders, particularly for TPO and cleaning data. As a result, the commenter stated some of the proposed limits will be technically infeasible. The commenter insisted that EPA correct the data and revise the MACT floor accordingly.

One commenter (IV-D-03) expressed concern that the database contained errors that were still undetected due to the assumptions used by EPA when developing the MACT database. The commenter (IV-D-03) noted that EPA made corrections to the database for materials that were not linked to a specific coating scenario only if those unlinked materials affected the source-wide emission rate by more than 10 percent. The commenter (IV-D-03) argued that a 10-percent value can be the margin used at many facilities to assure compliance and that “it is likely that achievability with the proposed standards will be affected, if not compromised” at those facilities for which EPA did not make corrections.

The commenter (IV-D-03) went on to argue that it is not possible for EPA to perform enough checks to eliminate or resolve all of the problems in the database. To address this issue, the two commenters (IV-D-03, IV-D-15) recommended adding a 20-percent correction factor to the proposed emission limits to account for two variables. The correction factor should include 10 percent to account for the fact that EPA did not correct the database for materials that were not linked to a specific coating scenario if those unlinked materials affected the source-wide emission rate by 10 percent or less. The correction factor should also include 10 percent to reflect the fact that EPA assumptions for add-on control capture and destruction efficiency understated HAP emissions.

The commenter (IV-D-03) also noted that errors were still present in the database at the time of proposal. The commenter (IV-D-03) reported that they have detected an error in the emission

estimate for the Lexamar facility in the TPO subcategory. According to the commenter (IV-D-03), one cleaning material that is 100-percent HAP was not included in the facility's emission estimate. When this material is included, the emission rate for that facility changes from 0.167 lb HAP per lb solids to 0.221 lb HAP per lb solids. Two commenter (IV-D-03, IV-D-23) provided the following corrections:

- The TPO emission rate for the Lexamar facility in the floor database should be revised upward from 0.17 lb/lb to 0.221 lb/lb.
- The TPO emission rate for the NUMMI facility in the floor database should be revised upward from 0.203 lb/lb to 0.246 lb/lb.

The commenter (IV-D-03) noted that these changes affect both the existing source and new source levels, since Lexamar was formerly the lowest emitting facility. The commenter (IV-D-03) asserted that it is now uncertain which facility in the TPO subcategory is the best performing similar source. According to the commenter (IV-D-03), the revised data for the TPO floor facilities requires EPA to re-evaluate the TPO emission limits for both new and existing sources.

The commenter (IV-D-03) argued that due to database problems and errors, the proposed emission limit for TPO surface coating operations is more stringent than what the existing sources in the top 12 percent can achieve on a regular basis without additional controls or major modifications. The commenter (IV-D-03) asserted that the Honda-Marysville plant can achieve the proposed limit, but only because an add-on control system was installed after the ICR information was submitted to EPA.

The same commenter (IV-D-03) also argued that the general use limit is not technically supportable. The commenter (IV-D-03) argued that the database to support the proposed limit for the general use subcategory has the same types of problems as the TPO database, according to the technical support document. The commenter (IV-D-03) also stated that the general use database had not been subject to the same degree of analysis as the TPO database, so some problems are probably still not known.

Response: We have evaluated the additional data provided on the sources in the TPO subcategory and have corrected the emission rates for these sources where appropriate, and recalculated the MACT floor (the average emission rate of the best-performing five sources for existing sources). The final emission TPO limits reflect those changes, and are higher than the proposed

emission limits for new and existing sources. The final emission limits also reflect the fact that the Honda Marysville plant and Honda East Liberty plant are now treated as a single facility in the MACT analysis. Worthington Custom Plastics, Inc. was added as the fifth source in the MACT analysis for the TPO subcategory.

In addition, the data and analysis for each of the MACT floor facilities for each subcategory were checked against the original survey response for each facility and no other corrections were identified that would warrant additional changes to the limits. This check also accounted for any coatings that may have been "unlinked" to specific coating scenarios at facilities in the MACT floor analysis. Since we have adopted the specific data corrections noted by the commenters and have confirmed the other data used in establishing the emission limits for each subcategory, we see no need to increase the limits by 20 percent, as suggested by the commenters.

Comment: One commenter (IV-D-03) concluded that the existing source TPO standards are, in fact, more stringent than the floor since they can only be achieved using what EPA has concluded are "above-the-floor" technologies. The commenter (IV-D-03) noted that some floor facilities employ either waterborne coating technology or add-on controls to reduce emissions from TPO coating operations and this has a significant effect on the average MACT floor emission rate. The commenter (IV-D-03) also noted that EPA concludes that both waterborne coatings and add-on controls should not be the basis of a standard more stringent than the MACT floor for existing sources. Finally, the commenter (IV-D-03) argued that for existing sources to meet the proposed existing source limit, they will need to adopt either waterborne coatings or add-on controls, which EPA has concluded were not viable for the range of existing sources.

Response: We disagree with the commenter that the TPO emission limits should be revised to exclude sources using waterborne coatings or add-on controls. The commenter provided no data or information that would indicate that these sources should be put into a separate subcategory or subject to a separate emission limit from those that are using solventborne coatings. The products being coated by the lower-emitting "MACT floor" facilities are similar to those being coated by the rest of the sources in the subcategory. Therefore, these sources need to be included in the MACT floor analysis

for TPO coating, and the emission limit for existing TPO sources can be no less stringent than the average emission limit of the five best controlled sources.

Existing facilities have the flexibility to meet the TPO emission limits in a variety of ways, including use of waterborne coatings, use of other low-HAP coating or cleaning materials, add-on controls, or a combination of these. In addition, the final rule includes a compliance alternative for facilities subject to the Automobiles and Light-Duty Trucks NESHAP where compliance with the requirements of the Automobiles and Light-Duty Trucks NESHAP for the surface coating of all your plastic parts used in automobile or light-duty truck manufacturing constitutes compliance with this rule. The final rule also includes a predominant activity compliance alternative suggested by commenters as an alternative for TPO sources that are located at facilities that are also subject to other surface coating NESHAP, and also includes the alternative of calculating a facility-specific emission limit for facilities that are subject to more than one subcategory emission limit or to more than one NESHAP. These three alternatives that were not included in the proposed rule will increase the compliance flexibility for facilities that are potentially subject to the TPO emission limits.

Comment: One commenter (IV-D-03) noted that EPA divided HAP emissions from cleaning operations among different subcategories at the same facility according to the HAP emissions from each subcategory at a facility, but it is unclear whether the allocation was based on the HAP content of the coatings or HAP emissions (i.e., taking into account controls). The commenter stated that EPA's own analysis shows there is no relation between the HAP content of the coatings and the HAP content of the cleaning materials. The commenter noted that they have recently notified EPA that the emission rates for several TPO floor facilities, including cleaning, should be revised.

The commenter (IV-D-03) argued that EPA should remove cleaning from the limits for TPO and general use coating operations because of the data uncertainties and instead require work practices. The commenter noted that §63.4493 of the rule requires a work practices plan to reduce emissions from mixing operations, storage tanks, and handling operations for coatings, thinners, cleaning materials, and waste materials when add-on controls are used. The commenter suggested these provisions could be amended to address cleaning operations. A second commenter (IV-D-15)

supported extracting the cleaning data from the floors and using work practices to limit emissions from cleaning.

The commenter (IV-D-03) also noted that since cleaning solvents contain no solids, they would increase HAP emissions without adding to solids in the denominator of the compliance determination, making compliance difficult even if a facility uses low-HAP coatings or add-on controls.

The commenter (IV-D-03) also noted that there is no precedent for including cleaning solvents in emission limits in State rules limiting VOC emissions from coating operations. The commenter (IV-D-03) added that if EPA decides to include cleaning in the emission limits, the TPO standard should be revised upward by 20 percent since cleaning emissions cannot be accurately quantified.

Finally, the commenter (IV-D-03) noted that even though EPA had data on the amount of cleaners used and their HAP contents for the auto/light duty truck rule, EPA could not quantify how much of these HAP emissions were captured and controlled and could not determine an emission limit representing MACT for cleaning. The commenter (IV-D-03) noted that the same facilities in the TPO floor are also in the auto/light duty truck database, and questioned how EPA could have developed a reliable cleaning limit for TPO without doing the same for the auto/light duty truck rule.

Response: The final rule includes HAP from cleaning solvents in the emission limits. The MACT floor survey collected data on HAP from cleaning solvent operations. In several cases, those data for the TPO MACT floor facilities have been revised in response to additional data from the commenter and these changes are reflected in the emission limits in the final rule. We have also reviewed the cleaning data for the general use MACT floor facilities and found no reason to revise the cleaning emission estimates for any of these facilities. These general use floor facilities generally did not overlap with the other subcategories so no assumptions were needed to allocate cleaning among different subcategories. We have no other reason to believe that additional changes are needed in the emission limits to address any remaining uncertainty in the emission estimates from cleaning.

The issues associated with the Automobiles and Light Duty Trucks NESHAP cleaning data were not present in the plastic parts database. For four of the five sources in the final TPO MACT floor database, the cleaning data were either reported in the survey for just the TPO coating operations, or they were confirmed and corrected by the facility in the public comments submitted after proposal.

The EPA had to estimate cleaning emissions allocated to the TPO coating operations for only one source (Worthington Custom Plastics, Inc.) in the final MACT analysis. The allocation was based on the total HAP content of the coatings, not emissions. We do not feel that the use of this one estimate warrants changing from a numerical emission limit to a work practice requirement for all cleaning operations.

We disagree with the commenter that State VOC limits establish a relevant precedent for standards to limit HAP emissions under section 112 of the CAA. Given the available data, it is not appropriate to set work practices for cleaning instead of emission limits for cleaning. Under section 112 of the CAA, work-practice standards can be set only if it is not feasible to prescribe or enforce an emission standard. For plastic parts and products, we have enough information to develop emission standards that include cleaning. The MACT floor and emission limits were determined based on actual data, including detailed cleaning solvent data, for the best 12 percent (or best five) sources in each subcategory. The limits are not based on State rules.

Comment: One commenter (IV-D-13) argued that when coating supplier data are reported as a range, compliance should be based on average values for reported HAP content and coating density, and not on the maximum. According to the commenter, the facilities that provided information to EPA were instructed to provide the average value for HAP content and density when those data were reported as a range on product data sheets or material safety data sheets (MSDS), and that EPA used averages to develop the MACT emission limits. However, the commenter noted that the proposed rule requires sources to use the maximum reported values when demonstrating compliance. This approach would effectively make the emission limits more stringent than the MACT “floor” level of control. The commenter noted that EPA performed no “above the floor” analysis to support this approach as is required by the CAA. Finally, the commenter stated that requiring sources to use the maximum rather than the average would require sources to obtain more MSDS, such as a separate MSDS for each color of a particular type of coating.

Response: We disagree with the commenter that the plastic parts surface coating survey form requested an average HAP content and coating density and that the proposed rule would have required using the maximums if these were provided as ranges by a material supplier. Form B of the plastic

parts survey has only one space for the weight percent of each HAP or VOC ingredient and density, and the instructions do not specifically request minimum, maximum, or average values for these variables. In the data collected by the survey, about 20 percent of the 16,000 rows of data for HAP or VOC ingredients were reported as a range. Most ranges were narrow. Of this 20 percent, only 5 percent of the reported ranges had a difference of more than 5 percent between the minimum and maximum values. All density was reported and entered as a single value. In the analysis, EPA used the midpoint of the range if HAP content was reported as a range.

Section 63.4541(a) of the proposed and final rule specifies the different methods a facility may use in determining HAP content. This section does not specify whether to use the average or maximum of a range. If a range of HAP weight percent is presented in formulation data by a material supplier, it is up to the user of those data to determine the appropriate value to use in compliance calculations. It is important to remember, however, that in the event of any inconsistency between formulation data and Method 311 measurements of HAP content, the Method 311 test results will take precedence unless the user can demonstrate that the formulation data were correct.

Comment: One commenter (IV-D-13) asked whether EPA had considered HAP retention in reactive coatings in developing the MACT emission limits. The commenter suggested that, if EPA did not, then the MACT floor emission limits would be higher than if HAP retention in reactive coatings had been accounted for.

Response: The MACT floor analysis did not account for HAP retention in reactive coatings. Data for the fractions of HAP emitted and retained were not available in the survey data. However, a qualitative review of the data for the MACT floor facilities in each subcategory indicates that reactive coatings accounted for a small percentage of coatings used. Therefore, accounting for HAP retained in reactive coatings would have had no measurable effect on the proposed and final emission limits. As described in the response to comments in section 13.0 of this document, the final rule includes an alternative test method for determining the HAP emissions from reactive adhesives.

#### 4.0 OPTIONS MORE STRINGENT THAN THE MACT FLOOR

Comment: One commenter (IV-G-02) believes that the discussion of ultraviolet/electron beam (UV/EB) cured coatings as a beyond-the-floor option for the headlamp subcategory falsely gives the impression that the technology involves “costly retrofits” and leads to decreased productivity. The commenter provided copies of several documents, including journal articles, EPA technical bulletins, and case studies to demonstrate that UV curing is highly cost competitive in many plastics coating applications. The commenter stated that EPA should correct this inaccuracy in the public record. The articles were not specific to headlamp coating.

Response: The EPA agrees with the commenter that the use of UV/EB technology does not necessarily require costly retrofits or lead to decreased productivity. As described in the preamble to the proposed rule, the EPA concluded that UV/EB technology should not be the basis for the standard for all existing sources in the automotive lamp subcategory (formerly called the headlamp subcategory). (See 67 FR 72291-72292, December 4, 2002.) Existing sources often have unique site-specific constraints, and some existing sources could have substantial costs associated with retrofitting a different coating technology. We found that the incremental emission reduction of requiring a beyond-the-floor option would be relatively small, and without having information on the benefits that it would achieve, an additional cost of going beyond the floor was not warranted at this time. The information provided by the commenter was not specific to automotive lamp facilities and would not justify a change in that conclusion.

The EPA agrees with the commenter that UV/EB technology is technically feasible for many coating operations, and the emission limits for new source automotive lamp coating operations is based on a facility using EB technology. There is nothing in the final rule that would prevent a facility from using UV/EB technology to comply with any of the subcategory emission limits. The EPA expects that

many new and existing plastic part facilities may, in fact, adopt this technology as part of their compliance strategy.

## 5.0 UNITS FOR THE NUMERICAL EMISSION LIMITS

Comment: One commenter (IV-D-05) stated that rules applicable to Department of Defense (DoD) coating operations should be in mass of VOC per volume of coating, using VOC as a surrogate for HAP for several reasons. First, the aerospace and shipbuilding surface coating rules to which many DoD facilities are subject are already in these units. Second, DoD suppliers are under contractual agreement to provide coatings that meet emission limits in these units for coatings that are subject to emission limits in State rules and in the aerospace and shipbuilding rules. Finally, most DoD coatings have a HAP:VOC ratio close to 1.0; therefore, VOC is a good indicator of HAP a direct linear relationship exists between VOC per gallon coating and HAP per unit solids for any given coating formulation. The commenter also noted that, for various reason, DoD facilities will have to select from existing coatings, rather than reformulate coatings to comply with emission limits. Therefore, developing new emission limits in other units (e.g., mass HAP per mass solids) will have little effect on emissions.

Response: The EPA will be developing a separate NESHAP for Department of Defense coating operations that are not currently covered by the Aerospace Manufacturing and Rework NESHAP or the Shipbuilding and Ship Repair NESHAP. These comments on the format of the emission limits will be taken into consideration in the development of that NESHAP.

Comment: Two commenters (IV-D-15, IV-G-01) supported the format of lb of HAP per lb of solids used because this metric is readily available from the manufacturers, is based on a reliable test method, and is more universally used by the industry. One commenter (IV-D-15) objected to the use of lb of HAP per gallon coating solids in coating rules. The commenter submitted the comments on the proposed Miscellaneous Metal Parts and Products NESHAP and cited concerns for using lb of HAP per gallon coating solids for that rule.

Response: The EPA agrees with the commenters that lb of organic HAP per lb of solids used is the appropriate format for the emission limits for the plastic parts surface coating rule, based on the data that were available for these coating operations. We do not agree with the comment that lb organic HAP per gallon coating solids is inappropriate for other surface coating rules. The EPA's response to the comments on the use of lb of organic HAP per gallon coating solids in other rules is discussed in the Technical Support Document, comment response document, and preamble to the final Miscellaneous Metal Parts and Products NESHAP and other coating rules using that same format.

## 6.0 OVERLAP WITH RULES FOR OTHER SURFACE COATING SOURCE CATEGORIES

### 6.1 Department of Defense Coatings

Comment: One commenter (IV-D-05) stated that EPA should establish a separate source category for DoD surface coating operations not covered by the Aerospace or Shipbuilding and Ship Repair NESHAP (40 CFR part 63, subparts GG and II, respectively) and exempt these coating operations from the final rule. The commenter claimed that the proposed compliance options would be impractical and extremely costly for DoD facilities because of the complexity of military coating operations, the number of coatings and solvents used, and the number of different items and substrates coated. Many DoD installations (especially those that service or remanufacture artillery, armored vehicles, weapons systems, and support equipment) use thousands of different coatings, and each material is subject to its own military specification.

Because DoD facilities use HAP-containing solvents, the commenter (IV-D-05) claimed they could not use the proposed compliant materials option. Reformulating solvents or coatings requires extensive field testing before they can be approved for use in tactical field equipment and weapons systems. In addition, updating the coatings for which there is a military specification requires updating the documentation applicable to military specification and the documentation for the relevant equipment and weapons systems that adopt that military specification.

According to the commenter (IV-D-05), the proposed emission rate option and the add-on controls option are not feasible because they would require DoD to be able to accurately track the amount of coating or cleaning solvent used on each item or substrate. As noted above, DoD installations may use thousands of different coatings on a variety of substrates, including metal, plastic, ceramics, rubber, fabric, wood, and composites.

The commenter (IV-D-05) requested a separate source category so that emission limits and a regulatory format could be developed that would be most appropriate for military coating needs. The commenter claimed that a separate rule also would ensure that all DoD coatings could comply with emission limits using the same units of measure. The commenter noted that DoD facilities use many of the same high performance coatings on plastic and metal items and substrates, and they could be potentially regulated by both the Plastic Parts NESHAP and the Miscellaneous Metal Parts NESHAP.

The commenter (IV-D-05) also argued that EPA should exempt DoD munitions manufacturing from all surface coating NESHAP for several reasons:

- Munitions have unique coating specifications that relate directly to performance and safety (several examples were provided).
- Developing and qualifying compliant coatings, if possible, would require more time than allowed under the Clean Air Act (i.e., greater than 3 years).
- The mix of munitions that are produced change frequently. These changes are unpredictable and dictated by world events and would prevent compliance using either the averaging or add-on control options.

Response: After several visits to DoD surface coating operations and meetings with DoD stakeholders, EPA agrees that a separate source category for DoD surface coating operations is warranted. One factor that we considered in this decision is the unique military specifications for coatings used on tactical and other military equipment. Further data collection and analysis is required to determine what emission limits are achievable for these coating operations. Another factor that we considered is the issue that military facilities may use thousands of different coatings, and that the types of equipment that are coated and the types of coatings used in a given time period are unpredictable and often influenced by world events. Further analysis is needed to determine what emission limit formats and compliance demonstration and recordkeeping are practical for this type of situation. Another consideration was the high probability that these facilities would be subject to multiple NESHAP.

The EPA will be developing a separate NESHAP for "Defense Land Systems and Miscellaneous Equipment" surface coating operations. That NESHAP will include operations that do

not meet the applicability criteria of the Aerospace Manufacturing and Rework NESHAP or the Shipbuilding and Ship Repair NESHAP. The comments pertaining to the format of the standard and appropriate compliance options will be taken into consideration in the development of that NESHAP. The development of the NESHAP for Defense Land Systems and Miscellaneous Equipment surface coating operations will also more closely examine the issue of surface coating operations for military munitions manufacturing.

## 6.2 Exclusion of Activities Subject to Other Surface Coating NESHAP

Comment: One commenter (IV-D-06) requested that surface coating of plastic subject to the Paper and Other Web Coating NESHAP (40 CFR part 63, subpart JJJJ) be included in the list of coating operations that are exempt from the final rule.

Response: The final rule specifically exempts the surface coating of plastic using a web process that meets that applicability criteria for the Paper and Other Web Coating NESHAP (subpart JJJJ). The EPA agrees that coating activities that are already subject to the Paper and Other Web Coating NESHAP should not be subject to additional regulation under the final rule. This change will clarify the applicability of both NESHAP.

Comment: Several commenters (IV-D-05, IV-D-06, IV-D-08, IV-D-10, IV-D-20) requested that EPA clarify that the Aerospace Manufacturing and Rework NESHAP (40 CFR part 63, subpart GG), rather than subpart PPPP covers the surface coating of parts necessary for the proper functioning of aircraft. The commenters requested that the final rule clarify that all aerospace coating, cleaning, and repainting activities are subject to the Aerospace Manufacturing and Rework NESHAP and exempt from subpart PPPP. The commenters stated that the proposal preamble indicated that coating activity exempted from the Aerospace Manufacturing and Rework NESHAP would be subject to the NESHAP. The commenters argued that the Aerospace Manufacturing and Rework NESHAP found that MACT controls were not warranted for certain aerospace surface coating operations and that regulating these operations under the final rule would be an unexplained change in policy. The commenters maintained that EPA has not demonstrated that the aerospace rework industry can cost-effectively achieve the general use emission limit. Finally, the commenters noted that many coatings for

plastic surfaces and parts associated with the interior of aircraft must meet Federal Aviation Administration or Original Equipment Manufacturer specifications and meet one of the definitions of specialty coatings in Appendix A to the Aerospace Manufacturing and Rework NESHAP.

Another commenter (IV-D-03) suggested that the final rule include an alternative compliance option for facilities subject to the final NESHAP under development for the surface coating of automobiles and light-duty trucks that also coat plastic parts. The commenter noted that some automobile and light-duty truck facilities will be subject to the final rule for plastic parts coating, the Automobiles and Light-Duty Trucks NESHAP, and the Miscellaneous Metal Parts and Products NESHAP. The commenter suggested that a source be allowed to comply with the final NESHAP for automobiles and light-duty trucks for all coating operations if the principle activity is the surface coating of automobile and light-duty truck bodies. The commenter noted that the plastic and metal parts coating operations are often integrated with the body coating operations, since all three coating operations may share common coating supplies, application equipment, cleaning solvents, and emission controls. In addition, unlike a job shop, the plastic parts are being coated specifically for incorporation into the final saleable product. According to the commenter, the shared equipment and materials could make tracking separate compliance for each NESHAP overly burdensome and would reduce the certainty of compliance.

One commenter (IV-D-05) requested that EPA clarify that no shipbuilding or ship repair surface coating operations are subject to the final rule or any other NESHAP, except the Shipbuilding and Ship Repair NESHAP (40 CFR part 63, subpart II). The commenter noted that the Shipbuilding and Ship Repair NESHAP covers only paints and thinners, and does not cover caulks, sealants, and adhesives. Since the final rule covers all coating materials, the commenter was concerned that the rule will cover those materials that were not specifically addressed by the Shipbuilding and Ship Repair NESHAP and will make shipbuilding and ship repair facilities subject to multiple NESHAP.

Response: We agree with the commenter that coating operations that are addressed in the Aerospace Manufacturing and Rework NESHAP, and for which EPA determined that MACT controls were not needed, are not intended to be regulated under the Plastic Parts and Products NESHAP. To clarify this intent, the final plastic parts rule includes a provision that specifies that the final rule does not

apply to coatings that meet the applicability criteria for the Aerospace Manufacturing and Rework NESHAP (40 CFR part 63, subpart GG). In addition, the final rule excludes the application of specialty coatings, as defined in appendix A to subpart GG, to plastic parts of aerospace vehicles or components.

The coating of plastic parts that would not meet the applicability of the Aerospace Manufacturing and Rework NESHAP or that would not require any of the specialty coatings defined in appendix A to 40 CFR part 63, subpart GG would be subject to the plastic parts final rule. Information provided during the comment period indicates that any miscellaneous plastic coating activities would comprise less than 5 percent of total coating activities at an aerospace facility. Consequently, the facility could elect to comply with the predominant activity compliance alternative to reduce its recordkeeping and reporting burden.

We agree that the final rule for the surface coating of plastic parts is not intended to apply to coating operations that meet the applicability criteria of the Shipbuilding and Ship Repair NESHAP. Although the Shipbuilding and Ship Repair NESHAP did not establish emission limits for sealants, caulks, and adhesives used in shipbuilding or ship repair, such types of coatings used for shipbuilding or repair operations are more appropriately addressed under the Shipbuilding and Ship Repair NESHAP. The review of the Shipbuilding and Ship Repair NESHAP, required by section 112(d)(6) of the CAA, is an appropriate mechanism for evaluating whether emission limits are needed for sealants, caulks, and adhesives used in shipbuilding or ship repair. Based on this information, the final plastic parts rule contains an exclusion for surface coating of plastic components of ships that meet the applicability criteria of the Shipbuilding and Ship Repair NESHAP.

For sources that will be subject to the final Automobiles and Light-Duty Trucks NESHAP, the final plastic parts and products rule includes a provision to mitigate the overlap at these facilities. For these plastic part surface coating operations, a facility has the option to comply with the requirements of the final Automobiles and Light-Duty Trucks NESHAP as long as the plastic parts are for use in automobiles or light-duty trucks. Surface coating operations for other plastic parts (such as those for motor cycles or lawn mowers) at the same facility will still be subject to the plastic parts rule.

Comment: Two commenters (IV-D-19, IV-G-04) supported the exemption of surface coating of fiberglass boats and boat parts at facilities meeting the applicability criteria of the boat manufacturing NESHAP (40 CFR 63, subpart VVVV). One commenter (IV-G-04) noted that few major source boat manufacturing facilities have coating operations and these are not comparable in scope to the operations and applicable control techniques found in the facilities meeting the applicability criteria of the plastic parts NESHAP. The second commenter (IV-D-19) noted that there are a small number of plastic coating processes and the level of HAP found in the coatings are often below the limits in the rule. Therefore, the commenter (IV-D-19) concluded that regulating the plastic coating in boat manufacturing would present only a recordkeeping and reporting burden with no environmental benefit.

Response: The final rule does not apply to boats or plastic parts of boats (including, but not limited to the use of assembly adhesives) where the facility meets the applicability criteria of the Boat Manufacturing NESHAP (40 CFR 60 subpart VVVV). During development of the Boat Manufacturing NESHAP, we already evaluated the emission sources associated with boat manufacturing and regulated those sources for which regulation was appropriate under 40 CFR 63 subpart VVVV. This exemption does not apply to surface coating performed on personal watercraft or in the manufacture of personal watercraft. Due to their smaller size and the greater number of personal watercraft manufactured relative to other types of boats, the surface coating of personal watercraft and their components is more similar to other types of plastic parts surface coating than the surface coating of larger boats. The Plastic Parts and Products NESHAP applies to coating operations performed on personal watercraft or parts of personal watercraft.

### 6.3 Assembled On-Road Vehicle Coating

Comment: One commenter (IV-G-01) strongly recommended that one rule, either the final Plastic Parts and Products NESHAP rule or the Miscellaneous Metal Parts and Products NESHAP (40 CFR part 63, subpart MMMM), apply to all assembled on-road vehicles. According to the commenter, motor home manufacturers offer customers numerous options that determine the surfaces of each vehicle. The commenter claimed that a substrate tracking program would need to be broken

down to individual work orders to meet the requirements for calculating and demonstrating compliance with both subparts.

One commenter (IV-D-15) requested that the rule allow the assembled on-road vehicle coatings limit to apply also to the coating of metal parts on an assembled vehicle regardless of the relative amount of plastic and metal coated. The commenter stated it would be practically impossible and cost prohibitive to coat an assembled vehicle with two coatings (i.e., one for plastic and one for metal), and this would limit the range of colors available. The commenter stated that the recreational vehicle database used to establish the limits were based on refinish coatings that were applied to both metal and plastic substrates of these vehicles. The commenter believed that it was not EPA's intent to have separate limits apply to the metal and plastic substrates. Thus, the HAP standard based on the recreational vehicle data should apply equally to both plastic and metal substrates.

Response: The EPA agrees that a single emission limit should apply to all surface coating on motor houses and other assembled on-road vehicles (AORV). Both the final Plastic Parts and Products NESHAP and the final Miscellaneous Metal Parts and Products NESHAP have been written to clarify that the surface coating of all AORV, including the coating of any metal substrate on the assembled vehicle, will be subject to only the emission limits of the assembled on-road vehicle subcategory in the final plastic parts rule. This is consistent with the data and methodology used to set the MACT emission limit for the assembled on-road vehicle subcategory. The AORV subcategory in the final Plastic Parts and Products NESHAP will include the aftermarket repair and refinishing of heavy duty trucks, buses, and other vehicles, and the final exterior painting of RVs, such as motor homes and travel trailers, among other vehicles, regardless of the relative amount of metal and plastic. Therefore, the coating of these vehicles will be exempt from the Miscellaneous Metal Parts and Products NESHAP. Surface coating operations that are subject to the AORV surface coating emission limit in the plastic parts rule are not subject to any of the emission limits in this rule. This subcategory in the plastic parts rule also includes the surface coating of parts that are coated with the assembled vehicle but are coated off-vehicle to protect systems and equipment or to allow full coverage. One example would be the coating of grill fronts on motor homes that are removed so they can be coated with the motor home without coating the radiator surface that is behind them. Because

coating of such parts is subject to the AORV emission limits, it is not subject to the metal parts rule. However, the AORV subcategory does not otherwise include the coating of separate parts at original equipment manufacturers. The coating of metal parts prior to the assembly of the vehicle, such as a motor home chassis, will still be subject to 40 CFR part 63, subpart M. Likewise, the surface coating of plastic parts prior to the final assembly of the motor home will be subject to either the general use, automotive lamp, or TPO emission limit in the final rule, as appropriate for the type of coating operation.

The limit for the AORV subcategory was developed from data on after-market automotive refinish coatings used by the recreational vehicle industry for the coating of motor homes and other recreational vehicles. These coatings are also used for the refinishing of heavy duty trucks, buses, automobiles and light-duty trucks, and other vehicles.

#### 6.4 Complying With the Rule Representing the Majority of the Substrate (Plastic or Metal) on Pre-assembled Parts

The proposed rule contained a provision to allow a source coating pre-assembled products, comprising plastic and metal substrates, to comply with the NESHAP representing the substrate to which more than 50 percent of the volume of coatings is applied (see proposed §63.4481(c)(8), 67 FR 72300, December 4, 2002).

Comment: Several commenters (IV-D-03, IV-D-09, IV-D-15) supported this provision in the proposed rule. However, one commenter (IV-D-15) requested that this provision be revised to include facilities that coat both metal and plastic components separately, as well as those that coat multi-substrate parts. The commenter noted that this would prevent a source from having to track the amount of coating applied to individual parts in a coating operation when a source coats separate plastic and metal parts and preassembled parts that contain plastic and metal on the same line. The commenter also noted that this option does not address coating lines that may switch between categories within a given week, or that may also meet the applicability criteria of other surface coating rules, such the automobile and light duty truck rule.

One commenter (IV-D-03) supported this provision, but suggested that facilities be allowed to comply with metal parts rule even if less than 50 percent of the coatings are applied to metal, but the performance requirements of the part require that the entire part be coated with the coating needed for the metal component. The commenter added that this change would recognize that the metal parts rule has evaluated the achievability of the metal parts limits in light of the durability and corrosivity requirements of metal.

One commenter (IV-D-09) suggested that the rule allow users to document that more than 50 percent of the surface area coated is metal or plastic based on tracking the design and number of parts produced, such as the number of trucks of each model type and truck model design information.

One commenter (IV-D-05) stated that in determining whether the metal parts rule or the plastic parts rule applies to an operation (i.e., is it greater than 50 percent metal or plastic), the rules should explain how coatings should be counted if they are applied to non-metal and non-plastic surfaces, such as wood, fabric, or ceramics.

One commenter (IV-D-15) requested the “predominant use” exemption option be revised in §63.4481(c)(8) to include facilities that coat both metal and plastic components separately as well as those that coat multi-substrate parts, which the commenter (IV-D-15) believes was EPA’s intent.

Several other commenters did not support the proposed option. One commenter (IV-D-22) claimed that the proposed rule is unclear and overly burdensome for facilities that coat both metal and plastic parts (which may not be pre-assembled) and that this compliance option would help few, if any, facilities. A second commenter (IV-D-10) noted that because the same cleaning solvents are used for multiple substrates and coating operations, it would be extremely difficult to determine the quantity used for plastic parts and products versus other substrates. Another commenter (IV-D-09) noted that the relative amount of plastic and metal coated at a facility could change over time and a facility could potentially fluctuate between applicable NESHAP.

Response: We recognize and appreciate some of the problems that were identified with this approach by the commenters. Although some commenters supported this approach, it is not included in the final rule. The final rule instead allows a variety of more practical compliance alternatives that address the metal and plastic coating at a facility rather than just pre-assembled parts. These include a

predominant activity alternative and a facility-specific emission limit alternative, as described in sections 6.6 and 6.9 of this document.

The facility-specific emission limit alternative allows for a facility to account for differences in the performance requirements between metal and plastic substrates described by commenter IV-D-03. This alternative is described more fully in the response to the comments in section 6.9. Under this alternative, a facility coating parts that are a mix of metal and plastic substrates will, for example, be able to comply with a weighted emission limit based on the proportion of the metal and plastic coating and calculated using the relevant emission limits.

The predominant activity and facility-specific emission limit alternatives will also allow sources to use parameters other than just coating consumption, and mass of solids used as suggested by commenter IV-D-09, if the parameters are approved by the Administrator. For example, you could use design specifications for the parts and products coated and the number of items produced, or other parameters, to estimate the mass of coatings used on each substrate, as long as those parameters are a reliable indicator of the relative amount of coating used and are approved by the Administrator.

As suggested by commenter IV-D-15, the alternatives in the final rule address facilities that coat both metal and plastic components separately, as well as those that coat multi-substrate parts. In the determining predominant activity or calculating a facility-specific emission limit, you must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the predominant activity determination or facility-specific emission limit calculation but they must be included in the compliance calculations.

If the non-plastic substrates of concern to commenter IV-D-05 are not subject to another surface coating NESHAP, they do not need to be included in the predominant activity determination or the facility-specific emission limit calculation, they also do not need to be included in the compliance demonstration for predominant activity or facility-specific emission limit. If coating of other substrates is subject to another NESHAP and is greater than 1 percent, the predominant activity and facility-specific emission limit alternatives provide additional compliance flexibility.

## 6.5 Comply with the most stringent NESHAP

The proposed rule contained a provision that if a source is subject to more than one NESHAP, they could comply with the most stringent NESHAP for all coating operations and this would constitute compliance with all applicable NESHAP. The determination of which NESHAP is most stringent would be based on an facility-specific estimate of emissions under each separate NESHAP. (See 67 FR 72279, December 4, 2002.)

Comment: Several commenters (IV-D-06, IV-D-09, IV-D-11, IV-D-12, IV-G-01) supported this provision. One commenter (IV-D-06) agreed that complying with one NESHAP would prevent excessive monitoring, recordkeeping, and reporting. Two commenters (IV-D-06, IV-D-09) suggested that facilities should be required to notify EPA of the more stringent NESHAP in the notification of compliance status or in their Title V permit applications or renewals. One commenter (IV-G-01) suggested that this option would require less recordkeeping than tracking and determining which substrate represents the greatest coating activity.

However, several commenters (IV-D-03, IV-D-05, IV-D-12, IV-D-15) stated that different units of measure (e.g., lb HAP per lb solids versus lb HAP per gal solids) make it difficult to determine which surface coating NESHAP among several is more stringent. One commenter (IV-D-10) noted that when different NESHAP have different methods of compliance demonstration, facilities must track and allocate material usage differently for different parts. Cleaning solvents in particular are a problem, since some NESHAP emission limits include cleaning solvents while others impose work practices instead.

One commenter (IV-D-18) noted that the proposed rule places the burden on the source to determine the most stringent limit and that the different units used for different surface coating rules may cause a source to mistakenly fall out of compliance through miscalculation or misunderstanding.

Several commenters suggested options so that facilities would not have to determine which rule is most stringent on a case-by-case basis. Two commenters (IV-D-05, IV-D-12) suggested that the relative stringency of different NESHAP should be stated in each rule so that facilities subject to more than one NESHAP do not need to perform a case-by-case determination of which applicable rule is most stringent. One commenter (IV-D-12) suggested that EPA determine the more stringent limit by

taking the plastic parts general use subcategory floor database and converting the limit to lb HAP per gallon coating solids, and then comparing this converted limit to the metal parts rule general use limit. Another commenter (IV-D-18) suggested that the different surface coating rules contain factors or equations so a source could convert emission limits from one unit to another (e.g., lb HAP per lb solids to lb HAP per gal solids).

One commenter (IV-D-12) recommended that EPA allow facilities meeting the applicability of both the metal parts rule and the plastic parts rule the option of complying with the standard of their choice since both rules will significantly reduce HAP emissions.

One commenter (IV-D-10) suggested that the final rule be clarified so that a facility subject to more than one surface coating NESHAP may choose to comply with any equally stringent NESHAP, and not be limited to the option of a more stringent NESHAP.

Response: Through clarification of the applicability provisions of the final rule, we have significantly reduced the potential for facilities to be subject to multiple surface coating NESHAP. However, we recognize that some sources may be subject to both the final rule and the Miscellaneous Metal Parts and Products NESHAP and possibly other surface coating NESHAP. We agree with the commenters who argued that demonstrating compliance with the most stringent NESHAP is complicated by the fact that it is hard to determine which NESHAP is most stringent because of differences in units, the affected source, whether cleaning is included in the emission limits, and compliance periods. Instead, EPA is providing in the final rule, the predominant activity or facility-specific emission limit alternative, as described in sections 6.6 and 6.9 of this document.

Another approach that you may use is the equivalency by permit option in 40 CFR part 63, subpart E (§63.94). Under this approach, you may design an emissions control program that is suited for your process or plant as long as you can demonstrate that your program will achieve the same emissions reduction as the NESHAP. You must then work with your State, local, or tribal air pollution control agency to submit an equivalency demonstration. This equivalency demonstration will be reviewed by the appropriate EPA Regional Office. The equivalency demonstration is approved as part of the operating permit approval process. For more information, please see the section 112(1) website at [http://www.epa.gov/ttn/atw/112\(1\)/112-lpg.html](http://www.epa.gov/ttn/atw/112(1)/112-lpg.html).

## 6.6 Predominant Activity Compliance Option

In May 2001, we shared with stakeholders a predominant activity approach, whereby a facility would comply with a rule or emission limit representing the predominant surface coating activity at that facility, and solicited feedback on this option. Although we received encouraging feedback at that time, the detailed information needed to propose this option was not received. We included another solicitation for feedback and detailed information in the preamble to the proposed rule (67 FR 72280, December 4, 2002) hoping that a broader audience would provide the necessary specifics.

Comment: Several commenters (IV-D-03, IV-D-09, IV-D-10, IV-D-12, IV-D-15) supported the predominant activity compliance option. One of the commenters (IV-D-09) preferred the predominant activity compliance option only if it is based on estimates of surface area coated. The commenter provided as an example a truck manufacturing facility that could estimate the total surface area coated by using truck part design information for each truck and tracking the number of trucks manufactured each year.

Several commenters (IV-D-03, IV-D-09, IV-D-10) recommended that the predominant activity demonstration be made only at the time a source applies for or renews its operating permit under title V or when the source becomes subject to regulations applicable to new source review or prevention of significant deterioration. The commenters noted that a "one-time" or periodic demonstration would reduce the recordkeeping burden and avoid the potential for some facilities to fluctuate back and forth between two applicable NESHAP if predominant activity was tracked over a short time frame.

One commenter (IV-D-15) believed that EPA's suggestion that predominant activity be based on an assessment or prediction of 3 to 5 years of coating activity could restrict manufacturing operations by limiting the ability to respond to future market demand.

One commenter (IV-D-03) suggested that the monitoring, recordkeeping, and reporting (MRR) requirements from the rule covering the predominant activity apply to all coating operations at that facility in order to streamline compliance.

Response: The final rule includes a predominant activity alternative that allows a facility to identify its predominant type of coating activity and comply with the emission limit that applies to that

activity for all coating operations. The predominant activity is defined as the activity that represents 90 percent or more of the surface coating that occurs at a facility. In determining predominant activity, you must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the determination of predominant activity but they must be included in the compliance calculations.

We have analyzed the relative differences in emission limits that are included in the predominant activity compliance option, as it would apply to the NESHAP for plastic parts and products and the NESHAP for miscellaneous metal parts and products. We have determined, for certain subcategories, that the environmental impact of complying with the emission limit for the predominant activity is essentially equivalent to complying separately with each emission limit. For other subcategories, the environmental impact could be substantially different. To prevent situations that could lead to substantial emissions increases, the following activities cannot be used as the predominant activity at a facility: assembled on-road vehicles and automotive lamp coating. Emission limits for these coating operations reflect the need for specialized performance requirements that can currently be accomplished only with materials that contain substantially higher HAP than materials used at other types of coating operations. It would be inappropriate to allow coating operations that can be performed with lower-HAP materials to comply with substantially higher-HAP emission limits than would otherwise be applicable.

Under the predominant activity alternative, if all coating operations comply with the emission limit applicable to the predominant activity, the facility will be considered in compliance with the emission limits otherwise applicable to the minority surface coating operations (i.e, those that amount to less than 10 percent of the coating activity).

The EPA agrees with the commenters that the predominant activity determination should be made at the time of the notification of compliance status and less frequently than on a monthly basis. A less frequent determination would substantially reduce the recordkeeping compared to a monthly determination and would reduce the potential that a source's operations could fluctuate between

compliance requirements. However, we feel it is important to determine predominant activity more frequently than at Title V renewal, since this may occur only every 5 years or so, and may not accurately reflect current coating operations. Therefore, the final rule requires that a facility determine their predominant activity on an annual basis.

The predominant activity determination must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The determination can be based on representative coating data for any reasonable time period of at least 1 year of operation for existing sources, provided the data represent the way the source will continue to operate in the future and are approved by the Administrator. For new sources with no prior coating activity, the initial determination would be based on only projections of coating activity for the next year. Subsequent determinations would be based on both past and projected coating activity.

We believe the most appropriate basis for the predominant activity determination under this rule is the percentage of coating solids by mass that is applied to parts subject to different emission limits. A facility would not need to measure or calculate the amount of coating solids used on different parts and products to determine the relative amount of coating activity subject to different emission limits. Instead, a facility could use other reliable and verifiable information to estimate the relative mass of coating solids used, including, but not limited to, product design specifications for the parts and products coated and the number of different parts and products produced during a representative period. The use of parameters other than coating consumption and mass of coating solids must be approved by the Administrator.

Since the final basis for the predominant activity determination could be as short as 1 year of operation, rather than 3 to 5 years as suggested at proposal, we have addressed the concern of commenter IV-D-15 that a longer basis could limit the ability to respond to future market demand. In addition, a facility must make a predominant activity determination annually and can repeat the determination at any time, if they feel that more recent data better reflect future coating activity and market demand.

As suggested by commenter IV-D-03, the monitoring, recordkeeping, and reporting requirements from the rule covering the predominant activity will apply to all coating operations

at that facility in order to streamline compliance.

Another compliance option to eliminate the need to comply with more than one coating NESHAP has also been added to the final rule. This second option allows a facility to calculate and comply with a facility-specific emission limit, as discussed in section 6.9 of this document.

#### 6.7 Create a Subcategory for Overlap Sources or Job Shops

One option presented in the proposal preamble was to develop a separate emission limit for facilities that could best be described as "job shops" and that perform surface coating that could be potentially subject to several different NESHAP. (See 67 FR 72279, December 4, 2002.)

Comment: One commenter (IV-D-09) suggested that developing subcategories for facilities subject to multiple NESHAP would not be feasible because EPA might need to create several subcategories to address different combinations of NESHAP. Another commenter (IV-D-15) stated that a subcategory for mixed coating operations could not be considered as an option without a proposed numerical emission limit. The same commenter claimed that emission limits for this option can not be developed based on the current MACT database.

Response: We agree with the commenters that this option is not feasible for several reasons. First, as stated in the proposal preamble (67 FR 72280, December 4, 2002), this option may not afford as much operating flexibility as other options being considered. Second, we did not have sufficient data to develop emission limits since most facilities responding to the plastic parts and miscellaneous metal parts industry surveys tended to provide only data relevant to those surveys and the surveys were completed by facilities that were more or less dedicated to one substrate or another. As a result, we did not have representative or accurate data from those facilities most likely to be subject to this type of emission limit. Finally, as one commenter alluded to, even if useful data became available, an emission limit for these "job shop" facilities would need to be proposed for public comment.

#### 6.8 Expand the Definition of the Source Category and Subcategories to Include Incidental Surface Coating Operations

Under one approach discussed in the proposal preamble, a facility could demonstrate that a portion of coating activity was below a specified percentage and, therefore, considered incidental. These incidental operations would be included in and subject to the NESHAP or emission limit applicable to the remaining coating operations. (See 67 FR 72279, December 4, 2002.)

Comment: One commenter (IV-D-06) stated that an approach for "incidental" surface coating operations, would not be useful for facilities such as truck manufacturers because neither plastic nor metal coating is incidental to their operations. Another commenter (IV-D-15) claimed that the incidental surface coating operations option may provide some relief.

Response: The final rule does not expand the definition of the plastic parts and products or miscellaneous metal parts and products source categories or subcategories to include incidental surface coating operations. However, as described previously, under the predominant activity compliance alternative in the final rule, a source may comply with the emission limit that represents 90 percent or more of the coating activity at a source. For determining the predominant activity and calculating the facility-specific emission limit, you only need to include coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Incidental coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activity need not be included in the emission limit calculation or predominant activity determination, but they must be included in the compliance calculation.

#### 6.9 Comments on the Proposal to Establish a Multi-Component Emission Limit

As an alternative approach to establishing separate emission limits for each subcategory, we proposed and asked for comments on a "multi-component" emission limit for the entire plastic parts source category (67 FR 72279, December 4, 2002). A multi-component approach would allow facilities to calculate a source-specific emission limit based on the MACT limits for all components and the relative amount of coating activity subject to each limit. The source would then calculate its emission rate to determine compliance with the source-specific emission limit.

Comment: One commenter (IV-D-16) disagreed with EPA's suggestion of setting a multi-component emission limit for several reasons. The commenter did not think it would reduce recordkeeping because in both cases (separate compliance and a multi-component emission limit) a source would have to track the amount of each coating applied to each substrate in each subcategory. The commenter also contended that this approach would likely increase emissions compared to compliance with the individual limits, but did not provide any supporting explanation. The commenter was also concerned that some facilities could operate out of compliance if the emission limit does not accurately reflect the mix of substrates that they coat. Finally, the commenter believed that this option would amount to emissions averaging across subcategory boundaries and would contradict CAA section 112(d)(3), which mandates that standards for a subcategory cannot be less stringent than the MACT floor for the subcategory.

Two other commenters (IV-D-03, IV-D-11), however, supported this approach. One commenter (IV-D-11) argued that restricting emission averaging among coating operations discourages innovative and environmentally beneficial approaches to low-HAP coatings. The commenter argued that allowing averaging would promote more cost-effective regulation of HAP emissions while achieving an overall environmental benefit. The commenter also argued that the same flexible approach should be incorporated for meeting the requirements of multiple NESHAP at the same facility, as well as meeting multiple emission limits within a single NESHAP.

One commenter (IV-D-03) supported the idea of a source subject to two or more subcategory limits (e.g., TPO and general use) to calculate a source-specific multi-component emission limit based on the relative amount of coating solids used on each plastic substrate. However, the commenter recommended that EPA not require a facility to calculate the limit each month and instead be allowed to calculate it annually or when renewing its permit.

While not commenting directly on this option, many commenters also expressed concern that many facilities coat both plastic and metal parts, often using the same coatings and cleaning solvents. According to these commenters, requiring a facility to demonstrate compliance with separate emission limits in two or more surface coating NESHAP would be difficult and burdensome. These comments have been summarized earlier in this section.

Response: The EPA is providing, in the final rule, the opportunity for a source to calculate and comply with a facility-specific emission limit for all coating operations that take place at the source. The emission limit would be weighted according to the relative amount of coatings used that would be subject to separate emission limits. This alternative emission limit can include applicable emission limits from two or more NESHAP, as provided in the example calculation below. As with the predominant activity alternative, you must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the facility-specific emission limit calculation but they must be included in the compliance calculations.

In calculating the facility-specific emission limit, the basis for the weighting of the individual emission limits must be the mass of coating solids used in each subcategory. The mass of coating solids used in the different coating operations may be calculated by a variety of methods, as long as it is accepted by the permitting authority. For example, in some cases a facility that uses the same coating for plastic and metal parts may be able to use the design specifications of the parts coated and the numbers of each type of part coated to calculate the weight of coating solids applied to metal and plastic surfaces subject to the individual emission limits. In other situations, actual records of coating usage for each operation may be needed to provide a valid calculation.

In calculating a facility-specific emission limit for operations subject to NESHAP with emission limits in different formats, you will need to convert emission limits to the same format. To do so, you must use a default value for solids density of 12.5 lbs. solids per gal solids (1.50 kg solids/liter solids) to convert emission limits in the Miscellaneous Metal Parts and Products NESHAP that are in “HAP per volume solids” to the “HAP per mass solids” units of the Plastic Parts and Products NESHAP. This default value was calculated from the weighted-average solids density of coatings in the metal parts survey database and represents the average solids density of metal parts coatings.

The following example illustrates how the facility-specific emission limit can be used. Assume a facility has three coating operations subject to the following emission limits:

- plastic parts general use (0.16 lb HAP/lb solids);
- plastic parts TPO (0.26 lb HAP/lb solids); and
- miscellaneous metal parts general use (2.6 lb HAP/gal solids).

The three coating operations account for the following pounds of coating solids used in the past 12 months:

- plastic parts general use: 30,000 lbs solids;
- plastic parts TPO: 30,000 lbs solids; and
- miscellaneous metal parts general use: 40,000 lbs solids.

First, the miscellaneous metal parts general use emission limit must be converted to lb HAP/lb solids units as in the plastic parts rule. For this example, we will use the default solids density of 12.5 lb solids per gal solids:

$$\frac{2.6 \text{ lb HAP}}{\text{gallon solids}} \times \frac{1 \text{ gallon solids}}{12.5 \text{ lbs solids}} = \frac{0.21 \text{ lb HAP}}{\text{lb solids}}$$

Next, the facility-specific emission limit (FSEL) is calculated using equation 1 in §63.4490 of the final rule:

$$\text{FSEL} = \frac{(0.16)(30,000) + (0.26)(30,000) + (0.21)(40,000)}{(30,000 + 30,000 + 40,000)} = \frac{0.21 \text{ lb HAP}}{\text{lb solids}}$$

If all coating operations comply with an emission limit of 0.21 lb organic HAP/lb solids and with the other compliance provisions of this rule, the facility will be in compliance with this rule for that compliance period. The calculation must be repeated for each 12-month compliance period. In this example, compliance will also constitute compliance with the Miscellaneous Metal Parts and Products NESHAP for the metal parts coating operations. The facility can use either the compliant materials option, the emission rate without add-on controls option, or the emission rate with add-on controls option to demonstrate compliance with the facility-specific emission limit.

We believe that this approach is consistent with the CAA because the emission limits from which the facility-specific emission limit would be calculated are based on the MACT emission limits for each applicable coating operation. Therefore, overall emissions would be essentially the same as if each coating operation were complying separately with each applicable emission limit.

The facility-specific emission limit must be calculated monthly for each 12-month compliance period to accurately reflect the portion of coating that would have been subject to the different NESHAP or subcategory emission limits and ensure that the facility-specific emission limit alternative achieves essentially equivalent environmental benefits as separate compliance. As the portion of coating activities subject to the underlying emission limits changes over time, the facility-specific emission limit should appropriately reflect these changes. There are wide differences in the various emission limits available for inclusion. A relatively small change in the mix of coating operations conducted during a compliance period can have a significant effect on the weighted emission limit. Thus, it would not be appropriate for a facility to establish and maintain a fixed facility-specific emission limit based on historical data or long term projections. This option will be less burdensome than separate compliance with each NESHAP because the facility can keep records and demonstrate compliance using a single unit of measure and will only have one set of recordkeeping and reporting requirements (instead of potentially different recordkeeping and reporting requirements for two or more different NESHAP).

In the final rule, the facility-specific emission limit and predominant activity alternatives provide sources with comprehensive and flexible approaches that will reduce the recordkeeping associated with sources that coat multiple substrates and whose workload could fluctuate over time. These alternatives reduce the likelihood of overlap among multiple surface coating NESHAP. Furthermore, potential overlap with specific source categories has been clarified and compliance demonstrations for automobile and light-duty truck sources are simplified by the changes to the applicability section of the rule discussed in sections 6.2 and 6.3 of this chapter. Together, these changes address the comments on regulatory overlap issues and approaches, and provide flexible compliance options where facilities may be subject to more than one coating NESHAP.

## 6.10 Miscellaneous Comments on Compliance with Multiple NESHAP

Comment: One commenter (IV-D-12) requested that the rule allow a facility the flexibility to use multiple options for determining which rule to comply with. That is, the rule should allow the facility to group coating lines and apply either the predominant use, most stringent rule, or any other method ultimately allowed by the rule independently to each group. The commenter claimed this flexibility is important for complex sites that coat multiple substrates and produce multiple products at different physical locations at the site. Plus, operations that do not have a predominant activity, but coat plastic and metal parts on the same coating line and equipment need this flexibility.

Response: If you choose the predominant activity alternative in the final rule, you must include in the predominant activity determination all surface coating activities at the facility that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities at the facility. The predominant activity alternative is intended for facilities where greater than 90 percent of total coating activity is subject to one subcategory emission limit in a surface coating NESHAP. Based on our analyses, this 90 percent level, based on facility-wide coating activity, ensures that the emission reduction is essentially equivalent to complying separately with each emission limit. You are not allowed to include only a subset of your coating operations in the predominant activity determination. However, the final rule allows other compliance alternatives that can be used if your facility does not meet the predominant activity criteria. You may calculate a facility-specific emission limit, as described in section 6.9 of this chapter, or you may comply separately with each NESHAP. In demonstrating compliance with the predominant activity, facility-specific emission limit, or individual subcategory emission limits, you have three options: the compliant materials, emission limit without add-on controls, and emission limit with add-on controls options. As specified in §63.4491, you may apply one of these three options to some coating lines and another option to other coating lines. This range of options in the final rule provides needed flexibility while assuring compliance with the plastic parts rule and other surface coating NESHAP.

Another approach that you may use is the equivalency by permit option in 40 CFR part 63, subpart E (§63.94). Under this approach, you may design an emissions control program that is suited for your process or plant as long as you can demonstrate that your program will achieve the same

emissions reductions as the NESHAP. You must then work with your State, local, or tribal air pollution control agency to submit an equivalency demonstration. This equivalency demonstration will be reviewed by the appropriate EPA Regional Office. The equivalency demonstration is approved as part of the operating permit approval process. For more information, please see the section 112(l) website at [http://www.epa.gov/ttn/atw/112\(l\)/112-lpg.html](http://www.epa.gov/ttn/atw/112(l)/112-lpg.html).

## 7.0 SCOPE OF THE SOURCE CATEGORY

### 7.1 Area Source Determinations

Comment: One commenter (IV-D-06) supported limiting the applicability of the rule to major sources. Other commenters (IV-D-21, IV-D-25) recommended procedures to improve how a source demonstrates area source status and commenters suggested including specific language in the applicability section (§63.4481). One commenter (IV-D-21) stated that PTE emission calculation procedures for surface coating operations often result in many smaller facilities qualifying as major sources even though they actually emit less than the major source thresholds. The commenter noted that many smaller plastic surface coating facilities have actual emissions of HAP well below the major source threshold, but no Federally enforceable provision limits their potential to emit a HAP. The commenter claimed New York State does not recognize any operational or physical limitations to limit a source's potential HAP emissions below a NESHAP applicability level unless specified in the regulation, or an air permit has been subject to public notice.

Response: We agree that this rule should only apply to major sources of HAP. However, we disagree that the rule should include additional procedures whereby a facility can demonstrate that it is not a major source and is not subject to the rule. Most State regulatory programs have general permits for minor sources that allow a source to comply with ton-per-year emission limits for HAP in order to demonstrate that they are an area source. These permits include the recordkeeping and reporting needed to demonstrate minor source status for a variety of source categories. These requirements are generally the same that would be included in any provisions that would otherwise be added to this rule in the absence of State programs. For New York, these programs appear to be included in 6 NYCRR Part 201, Subpart 201-4, Minor Facility Registration, and Subpart 201-7, Federally Enforceable

Emission Caps. Including additional provisions in this rule would merely repeat applicable provisions already found in State programs.

Comment: One commenter (IV-D-16) noted that many surface coating facilities also have halogenated solvent cleaning operations subject to 40 CFR 63 subpart T. The commenter asked that EPA clarify how a facility should determine potential to emit (PtE) for a collocated solvent cleaning operation, in determining whether a facility is a major source and is potentially subject to the plastic parts NESHAP. The commenter asked whether the PtE equation in §63.465(e) of subpart T should be used if PtE is not stated in a Federally enforceable limit. The commenter views §63.465(e) as faulty because it does not consider actions taken to comply with the subpart T.

Response: Whenever a facility is determining the potential to emit HAP for determining major source status, it must consider potential emissions considering Federally enforceable controls, including limits placed on the facility in a Federally enforceable operating permit. This issue is not unique to this coating rule or subpart T. If the facility has a Federally enforceable limit on annual emissions (on a rolling 12-month basis) from a HAP-emitting operation, the facility may use that limit in determining whether it is a major source of HAP. If the facility is subject to and in compliance with a Federally enforceable HAP emission limit, it may assume compliance with that limit in determining potential to emit. If a facility is not subject to an emission limit and does not have a Federally enforceable limit on annual emissions, then it must use some other means for determining potential to emit. For halogenated solvent cleaning operations, this may be the guidance included in §63.465(e).

If a facility is subject to subpart T and is meeting the subpart T emission standards, the facility can consider the subpart T controls in calculating the potential to emit for the halogenated solvent cleaning operations that are subject to subpart T. Subpart T, as well as other NESHAP and new source performance standards (NSPS) for which the compliance date has already occurred, are Federally enforceable emission limitations and, therefore, can be considered in determining potential to emit. To be considered an area (non-major) source for purposes of determining applicability of the Plastic Parts and Products NESHAP, a facility would need to achieve area source status (considering Federally enforceable control requirements) prior to the compliance data of the Plastic Parts and Products NESHAP.

## 7.2 General Applicability Comments

Comment: One commenter (IV-D-05) requested that EPA copy the following sentence from the definition of coating to the applicability section: “The source category does not include coating applications using handheld non-refillable aerosol containers.”

Response: We agree that this change will clarify the applicability of the rule and it has been made in the final rule.

Comment: One commenter (IV-D-06) stated that the definition of “coating” should exclude application of a solid paper or plastic film to a substrate when adhesive is not applied at the source. The commenter claimed this activity emits no HAP. Another commenter (IV-D-07) requests that the definition of adhesives be clarified so that it could not be interpreted to include adhesive tapes and films. The commenter requests that the definition of adhesives in the Wood Furniture NESHAP, which makes this distinction more explicit, be added to this rule. The commenter claims adhesive tapes have virtually no HAP emissions.

Response: We agree with the commenter and this provision has been added to the final rule. The final rule states that the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer is not a coating operation.

Comment: Two commenters (IV-D-03, IV-D-11) suggested that the final rule amend RCRA Air Emission Standards for Equipment Leaks at 40 CFR parts 264 and 265, subpart BB, to exempt facilities if they are subject to the plastic parts rule or the automobile and light duty truck rule. The commenters noted that this change was proposed for the automobile and light duty truck rule and argued it would allow consistent treatment across facilities subject to both the plastic parts rule and the automobile and light duty truck rule. The commenters also argued that the regulation of HAP from coating operations should be covered by regulations pursuant to section 112(d) of the CAA and not RCRA.

Response: The final rule does not amend 40 CFR parts 264 and 265, subpart BB. The proposed automobile and light duty truck rule included requirements to limit emissions from the storage and handling of coating materials and waste materials from all coating operations. The plastic parts rule

contains these provisions only for coating operations using an emission capture system and add-on emission control device to demonstrate compliance. In addition, the requirements in the proposed automobile and light duty truck surface coating rule are more comprehensive than those in the plastic parts rule. Therefore, the plastic parts rule contains no provisions that could potentially overlap with 40 CFR parts 264 and 265, subpart BB when a source is using either the compliant material option or the emission rate without add-on controls compliance option. In addition, the potential overlap with 40 CFR parts 264 and 265 when a source is using an add-on control is less in the plastic parts rule than in the automobile and light duty truck rule because the work practice requirements in the plastic parts rule are less comprehensive.

The final plastic parts rule includes a provision that if a facility meets the applicability criteria of the automobile and light duty truck rule and the plastic parts rule, then demonstrating compliance with the automobile and light duty truck rule for all coating of plastic parts for use in automobiles and light-duty trucks will constitute compliance with the plastic parts rule. Therefore, if 40 CFR parts 264 and 265, subpart BB are amended to exempt sources that meet the applicability criteria of the automobile and light duty truck rule, a facility demonstrating compliance with the plastic parts rule by demonstrating compliance with the automobile and light duty truck rule will also be exempt from 40 CFR parts 264 and 265, subpart B.

Comment: One commenter (IV-D-10) noted that some facilities have operations meeting the applicability criteria of the halogenated solvent cleaning NESHAP (40 CFR 63, subpart T). The commenter maintained that the emissions from the halogenated solvent cleaning operations should not be included in compliance calculations or recordkeeping for the plastic parts NESHAP as cleaning solvents (e.g., surface preparation before a part is coated), but this could be implied from the plastic parts rule as it is currently written. As a solution, the commenter recommended that the rule specify that a facility that is subject to an existing NESHAP be allowed to extend the provisions of the existing NESHAP to any parts covered by the plastic parts rule, and that the emission limits be expressed “as applied,” excluding solvent materials used for cleaning.

Response: Emissions from halogenated solvent cleaning operations meeting the applicability criteria of 40 CFR 63 subpart T should not be included in the compliance calculations or recordkeeping

for the plastic parts rule or other surface coating NESHAP. However, we believe there is little potential for confusion in the applicability of this or other surface coating rules to operations meeting the applicability criteria of 40 CFR 63 subpart T. Halogenated solvent cleaning operations regulated by subpart T are not typically considered surface coating operations, especially when a solvent cleaning machine is used. Therefore, no change in the final rule was made to clarify the applicability of this rule to those operations.

Comment: One commenter (IV-D-02) supported the provisions of the rule that exempt the extrusion of plastic onto plastic and metal, and “exemptions for certain *de minimis* activities.”

Response: We agree that the extrusion of plastic onto plastic and metal should not be regulated as a plastic part surface coating activity and this exemption, as well as the others included at proposal, is retained in the final rule.

Comment: One commenter (IV-D-06) requested that all exclusions from Federally enforceable state reasonably available control technology (RACT) rules for surface coating of plastics also be excluded from this rule. The commenter asked EPA to review State VOC rules to identify additional coatings that should be excluded from the plastic parts rule. The commenter argued that these coatings are exempt because the States have determined that regulating these coatings will achieve minimal air quality benefits or because the coatings have special properties that make compliance with VOC limits difficult. As an example, the commenter provided a list of exclusions from New York’s rule.

Response: The plastic parts rule includes some of the same exclusions found in State RACT rules, such as the exemption for coatings used in research and development activities, coatings used to fill minor surface imperfections, and coatings applied with hand-held aerosol cans. However, the EPA disagrees with the commenter that all exclusions from State RACT rules should be included in the final plastic parts rule. The MACT analysis included all coatings used at each facility in determining the emission limits. Within each subcategory, no coatings were excluded that were used in small quantities or that had special performance requirements. In addition, the plastic parts rule has emission rate compliance provisions that are not found in State VOC rules and these provisions allow more flexibility to use small quantity, higher emitting speciality materials. In most State VOC rules, each coating must meet the applicable emission limits and the rules generally have no provision to comply using a

weighted-average emission rate to offset excess emissions from some coatings with lower emissions from other coatings. This flexibility in the plastic parts rule will allow a facility to use these specialty coatings and still comply with the emission limits.

Comment: One commenter (IV-D-16) suggested that the final rule should contain a definition of “organic coating” or a statement that inorganic coatings and metal plating operations are not included in the plastic parts rule. The commenter provided an example definition of organic coating from an earlier EPA document.

Response: Metal plating operations are not plastic parts surface coating operations and do not meet the applicability criteria of the plastic parts rule. Emissions from hard and decorative chromium electroplating and chromium anodizing operations are regulated by the NESHAP for that source category (40 CFR 63, subpart N). We do not feel that a definition of organic coating or a statement that inorganic coatings and plating operations are not covered by the final rule are needed in the final rule to clarify its applicability. The current applicability language in the rule and the clarifications presented in this document are sufficient.

### 7.3 Gallons-Used Applicability Threshold

Comment: Several commenters (IV-D-03, IV-D-15, IV-D-09, IV-G-01) recommended that the applicability threshold in §63.4481(b) should be increased from 100 gallons per year to 250 gallons per year to be consistent with the applicability threshold in the metal parts rule. One commenter (IV-D-15) believes uniformity is necessary for facilities subject to both standards. One commenter further requested that the use of HAP-free materials should not count toward the exemption level. Another commenter (IV-D-06) requested that a coatings used in volumes of less than 50 gallons per year (not to exceed a total of 250 gallons per year) be exempt from the rule because a similar exemption is part of the metal parts rule. One commenter (IV-D-05) requested that for small use exemptions, EPA should include an exemption for each coating (individual formulation) used at less than 50 gallons per year, allow a facility total to 500 gallons per year to be exempt. The commenter (IV-D-05) claimed that it is costly and burdensome to track small containers (e.g., 8 ounces or less).

Response: The applicability threshold of 100 gallons or more per year has not been revised. The applicability threshold of 100 gallons or more per year of coating was selected based on an analysis of the data provided to the EPA through the plastic parts and products survey. These data indicated that sources that were using 100 gallons or more per year of plastic part surface coating materials were engaged in surface coating as part of their primary activity and those using less than this amount were not. Those facilities that used less than 100 gallons used coatings for purposes such as repairing minor defects during product assembly operations, and the surface coating operations were not integral to plastic parts and products surface coating. (See 67 FR 72287, December 4, 2002.) Since the threshold is based on an analysis of data from the actual facilities that will be subject to the rule, the final rule does not revise the threshold simply to be consistent with the metal parts NESHAP.

The use of HAP-free materials does not count towards the applicability threshold in the final rule. Because the purpose of the rule is to control HAP, we agree that it is appropriate to consider only HAP-containing coatings in determining whether a source meets the applicability threshold. We revised §63.4481(b) of the rule to clarify that when determining whether your facility is below the applicability threshold, you may exclude non-HAP coatings (as defined in the final rule) when determining whether you use 378 liters (100 gal) per year, or more, of coatings in the surface coating of plastic parts and products. The final rule includes a definition of non-HAP coating, which is a coating containing less than 0.1 percent by weight of each individual organic HAP that is an OSHA-defined carcinogen and less than 1.0 percent by weight of all other individual HAP. This would avoid a situation where a source would be subject to the rule even though it was using mostly non-HAP coatings and less than 100 gallons per year of HAP-containing coatings.

The final rule does not include an exemption for small volumes of coating (less than 50 gallons per year) at a source that uses more than 100 gallons of HAP containing coatings. The MACT analysis on which the standards are based included all coatings that were reported to EPA, even those in very small volumes. Therefore, we feel that the emission limits are achievable for sources that are including all coatings in their compliance demonstrations and no small volume exemption is needed.

#### 7.4 Research and Development Facilities

Comment: One commenter (IV-D-06) supported the research and development exemption and the definition of “research or laboratory facilities.” Another commenter (IV-D-20) requested the exemption of “coatings that occur at research and laboratory facilities” be changed to read “coatings that are part of research and laboratory activities.” As stated, the exemption could be construed too narrowly, according to the commenter. Aerospace facilities more typically perform R&D activities at the production facility, either in a building dedicated to lab work or in a lab that is contained within another building, according to the commenter. The commenter requested that EPA adopt the exemption for research or laboratory activities that were recently promulgated as part of the amendments to the regulations implementing Clean Air Act section 112(j). (40 CFR 63.50(a) and 63.51, 67 FR 16606 (April 5, 2002).

Response: The primary difference in the definition recommended by the commenter is that it defines “research or laboratory *activities*” as “activities whose primary purpose is for research and development...”, whereas the proposed and final plastic parts and products rule defines “research or laboratory *facilities*” as “facilities whose primary purpose is for research and development...” Both definitions include the criteria regarding R&D of new process or products, conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of products for commercial purposes, except in a de minimis manner. The definition in the final rule is consistent with definitions in several other surface coating NESHAP. The definition is broad enough to include research and laboratory facilities that are collocated with commercial coating operations. It would also be possible to temporarily dedicate a coating line to a research and development purpose and have it qualify for exclusion as a research and development facility, if a new process of product is being researched and the coated products are not being sold commercially except in a de minimis manner. Furthermore, if the commenter’s main concern deals with aerospace coating operations, these would be subject primarily to the Aerospace Manufacturing and Rework NESHAP rather than the Plastic Parts and Products NESHAP as explained in Section 6.2 of this document.

## 7.5 Automotive Lamps

Comment: One commenter suggested including all lamps that are subject to NHTSA regulations for vehicle lamps (49 CFR Section 571.108) in the headlamp subcategory because they all require the use of the same argentine coatings to create their reflective finishes. The commenter (IV-D-11) noted the proposed rule has a separate emission limit for headlamps. The commenter (IV-D-11) noted that all vehicle lamps must meet the same Federal safety standards. The reflective finishes on tail lamps and other lamps, therefore, require the use of the same HAP-containing solvents that are used as headlamps. These lamps have the same technical requirements for coatings that warranted the separate subcategory for headlamps. Another commenter (IV-D-15) requested substituting the term “headlamp” with “lamp” when defining the headlamp category and corresponding regulations. This would specifically include any automotive lamps including taillights, brake lights and sidelights that are required to meet the DOT vehicle safety regulations.

Response: We agree with the commenter and have revised the definition of the headlamp coating subcategory to include coating operations on all exterior automotive lamps (headlamps, tail lamps, turn signals, brake lights, and side marker lights). To reflect the broader content of this subcategory, we have also changed the name of the subcategory to "automotive lamp coating." This change in the content of this subcategory, however, has not affected the results of the MACT analysis that are the basis for the emission limits for this subcategory.

#### 7.6 Assembled On-Road Vehicles

Comment: One commenter (IV-G-01) requested that body fillers and rubbing compounds used on assembled on-road vehicles be exempt from the rule because these materials are not coatings. Because body fillers are reactive two-component products, only 0.1 percent of the active organics are emitted. Rubbing compounds, which are applied to remove scratch marks from clear-coated surfaces, do not come in contact with the plastic surface.

Response: We agree with the commenter that body fillers and rubbing compounds should not be considered coatings subject to the final rule. We have specified in the description of the assembled on-road vehicle subcategory in §63.4481(a)(5) that these are not considered coatings for the purposes of the final rule.

Comment: One commenter (IV-D-15) requested that vehicle parts that are separate from the assembled vehicle at the time of coating application, but are coated with the vehicle, be included within the definition of an assembled on-road vehicle coating operation. The commenter noted that parts are sometimes removed during coating to facilitate coating or to protect systems or parts from overspray. If these parts were subject to different emission limits and required separate coatings, an accurate color match with the rest of the vehicle would be difficult and expensive to achieve because two different formulations would be needed for each color. The commenter cited as an example the grille fronts that are removed from motor homes and coated in the same booth as the rest of the vehicle. This is done to protect the radiator surface that is behind the grille front from overspray. Another commenter (IV-G-01) requested that the definition of “Assembled On-Road Vehicle Coating” be expanded to include coatings used on “those parts that are painted with the assembled vehicle but are painted off-vehicle to protect systems, equipment or allow full coverage” (e.g. grill fronts).

Response: We agree with the commenter that items temporarily removed from the assembled vehicle for coating to protect systems and equipment, or to allow full coverage should be included in the assembled on-road vehicle subcategory. The following sentence has been added to the description of the assembled on-road vehicles subcategory in §63.4481(a)(5):

“This subcategory also includes the incidental coating of parts, such as radiator grilles, that are removed from the fully assembled-onroad vehicle to facilitate concurrent coating of all parts associated with the vehicle.”

The assembled on-road vehicle subcategory does not include the surface coating of plastic parts prior to their attachment to an on-road vehicle on an original equipment manufacturer's assembly line. The coating of separate plastic parts equipment manufacturers was considered in developing the MACT floor for the general use, TPO, and automotive lamp subcategories.

Comment: One commenter (IV-D-09) stated that EPA should verify that surface coating for aftermarket repairs and refinishing of heavy duty trucks, buses, and other vehicles are subject to the 1.34 lb HAP per lb solids used emission limit for assembled on-road vehicles. The commenter noted that these operations have the same constraints as those cited in the proposal preamble for the plastic parts rule in the rationale for this subcategory. The commenter also argued that operations at truck

assembly plants that touch-up or repaint portions of assembled trucks should have the option to comply with the assembled on-road vehicle subcategory limit, if the facility is willing to track these materials separately.

Response: The assembled on-road vehicle emission limit does apply to aftermarket repairs and refinishing of heavy duty trucks, buses, and other vehicles. In addition, operations at truck assembly plants that touch-up or repaint portions of assembled trucks have the option to comply with the assembled on-road vehicle subcategory limit, if the facility is willing to track these materials separately from those that are used in the assembly operation and are subject to the general use emission limits in the metal parts and plastic parts rules.

Comment: One commenter (IV-D-07) supported the use of a separate subcategory for assembled on-road vehicle coatings. The commenter noted that adhesives used in this application must be high-performance to withstand weathering on the outside of vehicles or to apply to vertical surfaces, and typically require a greater solvent content.

Response: The EPA agrees that a separate subcategory is needed for assembled on-road vehicle coating operations. However, this subcategory does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles. This was specified in §63.4481(a)(5) of the proposed rule and is retained in the final rule. The use of adhesives, sealants, and caulks was represented in the calculation of the General Use MACT Floor. The commenter has provided no data or information to support the argument that adhesives, sealants, and caulks used in the assembly of on-road vehicles should be subject to the emission limit for assembled on road vehicles rather than the general use emission limit.

## 7.7 Adhesives

Comment: One commenter (IV-D-07) requested that adhesives be removed from the definition of coating. The commenter claimed that regulating adhesives as a subset of coatings contradicts the approach of most State and local agencies and could cause confusion. The definition of adhesive in the Wood Furniture NESHAP (40 CFR 63, subpart JJ) makes it clear that adhesives are not coatings, according to the commenter. The commenter also noted that the national VOC emission

standards for consumer products and for architectural coatings and the State VOC rules in California also address adhesives and coatings separately. The commenter requested that if EPA does not delete adhesives from the definition of coatings, the definition of “coating operations” should be revised to “coating and adhesive operations” and the language referring to aerosol coating within that section be revised to “aerosol coating and adhesive operations.” In addition, references to emission standards in the rule should be revised to read “coating and adhesive” or “coating and adhesive operations.”

Response: We disagree with the commenter that the final rule should exclude adhesive operations from the definition of coating and should not regulate emissions from adhesive operations. The data provided to EPA support the determination that adhesives used in the manufacture of plastic parts and products account for a substantial portion of HAP emissions from this source category. Although national VOC rules and State VOC rules do address adhesives separately from other coatings, it is important to note that these programs do, in fact, limit emissions from adhesives. Therefore, no precedence exists within these VOC programs to exclude adhesives from the plastic parts rule. We do not feel that it is necessary to refer to adhesives separately from other coatings. The definition of coating clearly identifies adhesives as a type of coating regulated by this rule.

Comment: One commenter (IV-D-07) requested that application of adhesives from non-aerosol, pressurized refillable containers be exempt from the rule because application of coatings from handheld, nonrefillable aerosol containers are excluded from the rule. The commenter noted that refillable canisters have volumes of no more than 5 gallons and replace 24 to 50 aerosol cans and can be returned to the supplier for refilling. These two methods serve the same purpose (that is, apply adhesives), but refillable containers have the advantage of reducing waste compared to aerosol cans.

Response: We disagree with the commenter that adhesives applied from refillable pressurized containers should be exempt from the rule. We considered non-refillable handheld aerosol containers to be a different type of source (as compared to typical high capacity surface coating operations such as spraying and dipping), because the coating applied by this type of source must meet specific requirements in order to be sprayable from an aerosol can. We found no practical controls applicable to this type of source and chose to exempt it from the affected source to reduce the record keeping burden on the industry. We agree with the commenter that refillable containers reduce waste, but we

do not believe that exempting aerosol cans and regulating refillable containers will lead to an increase in the use of aerosol cans or their associated waste. The high cost of aerosol cans compared to refillable containers will discourage coating facilities from using the former except when a specific type of adhesive or only a small quantity of adhesive is needed.

#### 7.8 Facility Maintenance

Comment: One commenter (IV-D-10) requested the definition of “facility maintenance” be expanded to include the fabrication and coating of equipment needed to support the function of the facility. The commenter specifically cited the surface coating of equipment required for supporting, holding, or reaching aircraft or aircraft parts and components as part of facility maintenance.

Response: The definition of “facility maintenance operations” includes the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity. We believe that the present definition is sufficiently clear that one could easily conclude that the surface coating of equipment required for supporting, holding, or reaching aircraft or aircraft parts and components is part of facility maintenance, as long as the intended capacity of the facility is the manufacture or maintenance of aircraft and not the manufacture of this equipment for sale in commerce.

#### 7.9 Thermoplastic Olefin

Comment: One commenter (IV-D-03) stated that the final rule should contain the following definition of thermoplastic olefin (TPO), which the commenter suggested is more complete than the description in the technical support document:

Thermoplastic olefin (TPO) means polyolefins (blends of polypropylene, polyethylene and its copolymers). This also includes blends of TPO with polypropylene and polypropylene alloys, including, but not limited to, Thermoplastic Elastomer (TPE), Polyurethane TPE (TPU), Polyester TPE (TPEE), Polyamide TPE (TPAE), and PVC Thermoplastic Elastomer (TPVC).

Response: The EPA agrees that the suggested definition correctly expresses the intended meaning of the term “thermoplastic olefin (TPO)” and is consistent with the data considered in developing the emission limit for the TPO subcategory. The definition suggested by the commenter, with minor modifications in the sequence of the words in some of the abbreviations, has been included in the final rule.

Comment: One commenter (IV-D-07) requested that the TPO subcategory be expanded to include the following substrates and applications because they share the same characteristics used to justify the TPO subcategory:

- polyolefins;
- high impact polystyrene (HIP);
- acrylonitrile-butadiene-styrene (ABS) to fiberglass;
- ABS to ABS;
- ABS to painted aluminum;
- vinyl to fiberglass;
- Delrin®; and
- Alcatel® and similar high performance materials.

The commenter suggested that a broader subcategory could be called “Low Surface Energy, Nonporous Substrates” and could include several applications involving adhesive for ABS and fiberglass. The commenter described substrate characteristics and performance characteristics that cause adhesives for these plastics to require high levels of solvent, typically toluene or MEK. The same commenter suggested that if the TPO subcategory is not expanded, the emission limit for adhesives should be raised to 0.5 kg HAP/kg solids.

Response: Based on other comments, a definition of TPO has been added to the final rule that includes polyolefins, and may also include some of the other plastic substrates described by the commenter:

*“Thermoplastic olefin (TPO) means polyolefins (blends of polypropylene, polyethylene and its copolymers). This also includes blends of TPO with polypropylene and polypropylene alloys including, but not limited to, thermoplastic elastomer (TPE), TPE polyurethane (TPU), TPE polyester (TPEE), TPE polyamide (TPAE), and thermoplastic elastomer polyvinyl chloride (TPVC).”*

We disagree with the commenter that the definition of TPO should be revised to include these other plastic types. The commenter provided no data indicating that the coatings used for these materials would be unable to comply with the proposed emission limits or to support an emission limit of 0.5 kg HAP/kg solids.

## 8.0 NEW SOURCE APPLICABILITY

Comment: One commenter (IV-D-03) supported the proposed criteria for the applicability of new source MACT with respect to the definitions of a new source and a reconstructed source in §63.4482(c)(2) and (3). However, other commenters (IV-D-03, IV-D-09, IV-D-11) requested clarification on what additions or changes to a facility constitute a new source.

One commenter (IV-D-09) requested that EPA confirm that the source is all existing coating operations at a facility when considering the cost threshold for reconstructions that would cause an existing facility to become a new source. As an example, if a source adds a new coating line but the cost is less than 50 percent of the cost of all facility coating operations, the commenter believes the new line is considered part of the existing source and not a new source.

Response: The commenter (IV-D-09) is incorrect in assuming that the cost threshold is all of the existing coating operations at a facility when considering the cost threshold for reconstructions.

Section 63.2 of the General Provisions to part 63 (40 CFR 63, subpart A) define reconstruction as follows: “Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that: (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.”

It is important to note that the definition of reconstruction involves the replacement of components of an affected source, and the plastic parts and products rule defines each affected source

as the collection of all coating operations, materials, and equipment that are used for the surface coating of plastic parts and products within each subcategory. (See §63.4482(b).) Therefore, it is possible to reconstruct the affected source applicable to a single subcategory without reconstructing all of the coating operations at a facility.

For example, if a facility has only one coating line for TPO substrate coating operations, then the cost threshold for reconstruction applies to that single line because that single line constitutes the affected source for that subcategory. If a facility has two or more lines for TPO substrate coating, then the cost threshold applies to all of the TPO substrate lines. If the same facility also has a general use coating operation, then the cost threshold for determining if the TPO substrate line affected source was reconstructed would not include the general use coating operation because that is a separate subcategory and constitutes a separate affected source.

Comment: Two commenters (IV-D-03, IV-D-11) recommended that the rule provide an exemption from New Source Review (NSR), Prevention of Significant Deterioration (PSD), and New Source Performance Standards (NSPS) for facilities that install controls systems to comply with the rule. Complying with these requirements would threaten timely compliance with the NESHAP, according to the commenters. These changes could include the replacement of application equipment, the installation of add-on controls, or increased NOx emissions from certain types of controls, according to the commenters. One commenter (IV-D-03) suggested adding the following language to reference the pollution control project provisions in the PSD and NSR rules:

*For any existing, new or reconstructed facility, any change to the facility related to compliance with any of the requirements contained in this subpart shall be deemed to meet the requirements of "Pollution Control Project" as set forth in Part 51 or Part 52 and shall not cause the requirements of Prevention of Significant Deterioration, New Source Review, or New Source Performance Standards to apply to such facility.*

Response: We are not including in the final rule an exemption from NSR, PSD, and NSPS for those coating operations that are modified or upgraded in order to comply with this rule. It would be inappropriate to include language in a NESHAP that could affect the applicability of these other programs since these are better handled on a case-by-case basis by the States and Regions implementing these other regulations. However, we do not expect compliance with this rule to require

changes to existing coating operations that could trigger applicability under these other programs. The only possible exceptions could be those few facilities that install combustion devices that may lead to an increase in NOx emissions and these should be eligible for the pollution control project exclusion in the NSR regulations.

Comment: One commenter (IV-D-15) requested that EPA clarify that when a facility switches applicability from one surface coating NESHAP to another, the coating operations that are present before the switch are considered existing sources and not new sources.

Response: If a plastic parts surface coating affected source was constructed or reconstructed after December 4, 2002, then it is considered a new source. If a plastic parts surface coating affected source was present before that date, then it is considered an existing source. A source can become a new source only if it is constructed or reconstructed. The final rule §63.4482(c) states that an affected source is a new source if it commences construction after December 4, 2002 by installing new coating equipment and the new equipment is used to either (1) perform plastic parts surface coating where previously no plastic parts and products surface coating was performed or (2) perform plastic parts and products coating in a subcategory that was not previously performed at that facility. The final rule §63.4482(d) refers to §63.2 for the definition of reconstruction. The definition of reconstruction in §63.2 of the NESHAP General Provisions includes replacement of components such that the fixed capital costs of the new components exceed 50 percent of the fixed capital costs that would be required to construct a comparable new source. A coating operation could meet the definition of an affected source subject to one NESHAP and then become an affected source subject to a different NESHAP without performing construction or reconstruction, for example, by switching just the type of part that is coated without adding or replacing equipment. Therefore, if a coating operation began coating plastic parts and products after December 4, 2002 without performing construction or reconstruction, it would still be considered an existing source and subject to the emission limits and compliance dates for existing sources. If some construction or reconstruction were associated with that shift to coating plastic parts and products, then the source would need to determine whether that activity qualified that source as a new or reconstructed source according to the language in §63.4482 of

the Plastic Parts and Products NESHAP and the NESHAP General Provisions in 40 CFR 63, subpart A.

## 9.0 EMISSION LIMITS

Comment: One commenter (IV-D-11) requested that EPA modify the emission limits for TPO coating because the proposed limits are not practically achievable for solvent-based systems. The commenter argued that because the floor facilities for existing sources in the TPO category include both water-based and solvent-based technologies, solvent-based facilities are faced with disadvantages in meeting the standards. The commenter stated that it is not economically feasible to convert to water-based coatings, water-based coatings do not meet all customer needs, and low HAP solvents are available only for limited applications. The commenter also predicted that for some TPO operations, such as adhesion promoter application, emissions would exceed the HAP emission limits even if the operation used add-on controls.

The commenter (IV-D-11) recommended that EPA consider two options. The first was to revise the emission limit so that it excludes emissions from cleaning solvents, or adjust the emission limit to address the limited substitution or reformulation options for cleaning solvents. The commenter noted that the proposed NESHAP for both surface coating of automobiles and light-duty trucks and for surface coating of metal cans separate out cleaning operations from the emission limits and regulate them with work practices. The second option suggested by the commenter was to establish separate existing source emission limits for water-based and solvent-based TPO coating operations.

Response: We disagree with the commenter that the TPO emission limits should be revised to exclude sources using waterborne coatings or add-on controls. We also disagree that the emission limits should exclude HAP emissions from cleaning operations. The commenter provided no data or information that would indicate that sources using water-based coatings should be put into a separate subcategory or subject to a separate emission limit from those that are using solvent-based coatings. The products being coated by the lower-emitting "MACT floor" facilities are similar to those being

coated by the rest of the sources in the subcategory. Therefore, these sources need to be included in the MACT analysis for TPO coating and the emission limit for existing TPO sources can be no less stringent than the average emission limit of the five best controlled sources. This MACT analysis also included the HAP emissions from cleaning operations in determining the emission rate for each of the MACT floor facilities. The data on cleaning and the reasons for including cleaning in the emission limits are further described in Chapter 3 of this document. Since HAP emissions from cleaning were included in the MACT analysis, there is no need to regulate cleaning operations separately using work practices.

Existing facilities have the flexibility to meet the TPO emission limit in a variety of ways, including use of waterborne coatings, use of other low-HAP coating or cleaning materials, add-on controls, or a combination of these. In addition, the final rule includes a compliance alternative for plastic part surface coating sources subject to the Automobile and Light-Duty Truck NESHAP currently under development. These sources may comply with the requirements of the Automobile and Light-Duty Truck NESHAP for all surface coating operations on plastic parts used in automobiles or light duty trucks, in lieu of also complying with the plastic parts rule. In addition, the final rule includes the predominant activity compliance alternative, as suggested by commenters, and the facility-specific emission limit alternative. Both of these alternatives, that were not included in the proposed rule, provide greater flexibility for TPO coating operations located at facilities also meeting the applicability criteria of other surface coating NESHAP subcategories.

Comment: Two commenters (IV-D-19, IV-D-22) questioned the ability of personal watercraft, motorcycle, and marine engine manufacturers to comply with the general use emission limit. The commenters stated that it is not technically feasible for coatings used on personal watercraft and motorcycle plastic parts to meet the emission limits for the general use category. The commenters argued that personal watercraft and motorcycle coatings need a separate category that more accurately reflects their performance and durability requirements. One commenter (IV-D-19) argued, for example, that the coatings used on personal watercraft need to protect the underlying fiberglass laminate because personal watercraft are not manufactured with the gel coat finish found on other types of boats. The commenter also noted that personal watercraft product quality is judged by the ability to maintain its appearance in a harsh marine environment.

The second commenter (IV-D-22) suggested that the plastic parts general use emission limit is more stringent than the metal parts general use emission limit and that this will favor metal substrates over plastic substrates. The commenter noted that some metal substrates that are not cosmetically important can be coated with powder coatings or electrocoating, but these are not viable options for plastic parts or where appearance is important. The commenter suggested that since both metal and plastic substrates in personal watercraft manufacturing and motorcycle manufacturing often use the same coatings and spray booths, they should be subject to the same emission limit.

One commenter (IV-D-19) noted also that the plastic covers on marine inboard and outboard engines must also meet the same appearance and performance requirements as those for personal watercraft. That is, the cover must have a quality finish that is able to maintain its appearance in a harsh marine environment. The commenter reported that these covers are often painted at the same facility as metal engine parts and metal and plastic parts are often, but not always, painted on the same line.

To resolve these issues, commenter (IV-D-19) requested that either these coating operations be regulated under an emission limit separate from the general use subcategory, or that the general use emission limits in the plastic parts and metal parts rules be harmonized and suggested that these operations could meet a limit that is intermediate between the metal and plastic limits.

Response: The commenters did not provide coating data to support the claim that the coatings used on personal watercraft, motorcycles, or marine engine covers could not meet the proposed emission limits, or to support the development of alternative emission limits. Therefore, the final rule does not contain a separate category or emission limit for personal watercraft, motorcycle, or marine engine cover coating operations. However, facilities that coat both metal and plastic parts will be allowed to calculate a facility-specific emission limit based on the relative amount of coating performed on each substrate. This overall facility-specific emission limit will be intermediate between the applicable metal and plastic emission limits. This approach will allow facilities that coat these types of metal and plastic parts more flexibility in complying with the limits for their plastic part surface coating operations since they will be able to apply some emission reductions from metal part coating operations that use powder coating or electro-coating to the demonstration of overall compliance for their plastic

part and metal part coating operations. This final approach is consistent with the recommendation of commenter IV-D-19.

Comment: One commenter (IV-D-16) suggested that EPA consider including a percent reduction emission limit for sources that use an add-on control device for demonstrating compliance. The commenter noted that many sources have add-on controls and this may contradict the EPA's prediction that many sources will not use add-on controls to comply.

Response: We disagree with the commenter that the final rule should have a percent-reduction emission limit for sources that use add-on controls. Since the vast majority of sources in the plastic parts database did not have add-on controls, the MACT analysis used the HAP emission rate (lb HAP per lb solids) as the common metric for measuring relative emissions from each facility. This measure normalizes the emission rate across all sizes and types of facilities and allows facilities to achieve compliance using a variety of pollution prevention measures and control techniques. This format also ensures that controlled emissions after the final rule is implemented are measured on an equal basis, since two sources with equal percent reductions could have different controlled emission rates. We have also received no new information indicating that add-on controls will be used by many sources to comply. Therefore, the final rule does not include a percent reduction emission limit for sources with add-on controls.

Comment: One commenter (IV-D-04) argued that the proposed emission limits would adversely affect their ability to use coating that shield electronic devices from electromagnetic interference and radio frequency interference. The commenters reported that they currently use about 1200 gallons per year of conductive coatings with HAP contents between 1.95 to 3.31 lb HAP per lb solids. The commenter requested that the final rule either exempt these coatings entirely or establish a separate subcategory for these coatings with more achievable emission limits.

The same commenter (IV-D-04) also argued that the proposed emission limits would affect their ability to use adhesion promoters in order to achieve a durable finish on Noryl® and other plastic substrates. The adhesion promoter they are currently using and which is most compatible with the lower-HAP, higher-solids coatings they are using has a HAP content of 2.17 lb HAP per lb solids. The commenter reported that the combination of lower-HAP, higher-solids coatings and adhesion

promoter have decreased overall VOC and HAP emissions. The commenter requested that the final rule either exempt adhesion promoters entirely or establish a separate subcategory for these coatings with more achievable emission limits.

The commenter (IV-D-04) also noted that FDA approval is needed for coating used in medical equipment and requested that the final rule extend compliance times for coatings that require FDA approval, which can be a long and extended process.

Response: The final rule does not include the exemptions, separate subcategories, or extended compliance times requested by the commenter. The commenter has noted that several of the coatings they currently use cannot meet the proposed emission limits. The final rule includes the emission rate without add-on controls compliance option for facilities that use a mix of lower- and higher-HAP materials. The commenter has not demonstrated why the facility cannot use this compliance option to off-set higher emissions from the non-compliant coatings with lower emissions from other coatings.

The Noryl® plastic described by the commenter may satisfy the definition of a thermoplastic olefin and, if so, the coating of this plastic would be subject to the TPO subcategory emission limit. This emission limit is less stringent than the general use emission limit and reflects the average emissions from the entire TPO surface coating process, including the adhesion promoter and subsequent top coats.

The 3-year compliance date for existing sources is the maximum allowed for existing sources under section 112(i)(3)(A) of the CAA, except as provided in 112(i)(3)(B) and 112(i)(4) though (8). However, the commenter has not demonstrated how FDA approved coatings would qualify under any one of those exceptions. In addition, as noted above, the commenter may be able to use the emission rate without add-on controls option to achieve compliance and still use the higher-HAP FDA approved coatings.

## 10.0 COMPLIANCE OPTIONS

Comment: One commenter (IV-D-13) supported the provision in §63.4491 that allows a source to use different compliance options within the source. But the commenter suggested that the rule language is confusing and compliance officials may not allow the full degree of flexibility that EPA intended. Specifically, it is not clear what is intended by “coating operation.” According to the commenter, sources may not be allowed to use different compliance options when applying different coatings to the same product, and when applying the same coating to different products. The commenter suggested that EPA revise the definition of a “coating operation” to read as follows:

*The process of applying a given quantity of coating material or solvent to a given part and all subsequent process stages where HAPs are emitted from the specific quantity of coating or solvent on the specific part.*

The same commenter (IV-D-13) suggested that the rule also clearly state that a source may establish different coating operations and employ different compliance options when different solvents or coatings are used on the same part or when the same solvent or coating is applied to different parts.

A second commenter (IV-G-01) suggested allowing parts of a source to use different compliance options so that compliance could be less burdensome for the emission units complying with the compliant materials option. In particular, the commenter suggested that averaging could be used for just a small subset of coatings with most coatings meeting the compliant materials option.

Response: We agree with commenter (IV-D-13) that facilities should have flexibility to use different compliance options, and have revised the language in the compliance options, section (§63.4491) accordingly. You may choose to use one compliance option for the entire affected source, or you may use different compliance options for different coating operations within the affected source.

You may also use different compliance options for the same coating operation at different times, different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts.

You may choose different compliance options for different lines at the same facility. For example, one line may be able to use the compliant materials option, while another line may need the flexibility to use higher- and lower-HAP materials under one of the emission rate compliance options. It may be more practical to use an add-on control for some coating operations, such as a specific line, than for others. If you have an add-on control device on some coating operations, the work practice standards apply to only the coatings and operations controlled by the add-on controls. It is important to note that a source cannot, under any compliance option, include the same coating applied to the same part in more than one compliance option at the same time.

The final rule allows the flexibility requested by commenter IV-G-01. For example, most of the coatings used on a particular line may be able to individually meet the emission limit for a particular subcategory, but a few coatings may need a higher-HAP content. You could average these higher-HAP coatings with some of the lower-HAP materials under the emission rate without add-on controls option and demonstrate compliance for these separately, while the other lower-HAP coatings comply under the compliant materials option.

Comment: One commenter (IV-D-14) requested that the compliant materials option provide a low-volume exemption for cleaning solvents, thinners, and other additives that contain small amounts of HAP, similar to the Wood Furniture MACT. The commenter noted that coating manufacturers sometimes provide customers with “fixatives” for reformulated coating with performance problems (e.g., storage, application, cure, or aesthetic or physical properties). The fixatives may contain a small amount of HAP. The commenter stated that the threshold limit should be 250 gallons of coating per year. Alternatively, the commenter supported the use of emission averaging to address the problem.

Response: The final rule does not contain a low-volume exemption for thinners, fixatives, or other additives in the compliant materials option. The compliant materials option is intended as a simple way to demonstrate compliance for a specific subset of facilities that are not using add-on control devices to comply with the emission limits and where all the coatings they use individually meet the

emission limits in the final rule. Additionally, because the emission limits and compliance calculations include thinners and cleaning materials, this specific subset of facilities also must use only “non-HAP” thinners and cleaning materials (as defined in the rule). When these restrictions are met, the compliance demonstration burden can be significantly reduced. As an incentive to those facilities that choose to meet the emission limits through these pollution prevention measures, we have included this less burdensome compliance demonstration in the rule. Facilities that must use cleaning materials or thinners and other additives that contain HAP can use “Emission Rate Without Add-On Controls Option,” which was included in the proposed rule and is retained in the final rule.

Comment: One commenter (IV-D-03) stated that section 63.4541 of the compliant materials option should be revised to clarify that the requirement that sources use “no thinner or other additive, or cleaning material that contain organic HAP” means that HAP does not exceed 0.1 percent for OSHA-defined carcinogens and 1.0 percent for all other HAP.

Response: Section 63.4541 of the proposed and final rule contain procedures for determining HAP content that specify that only individual HAP present at concentrations above the OSHA reporting thresholds are considered in determining if a material contains HAP. In addition, the final rule includes a definition on non-HAP materials based on the OSHA reporting thresholds. Thinners and other additives, cleaning solvents, and coatings are considered non-HAP as long as the organic HAP level does not exceed the OSHA reporting thresholds for HAP (0.1 percent by weight for OSHA-defined carcinogens and 1.0 percent by weight for other HAP).

Comment: One commenter (IV-G-01) suggested that emission units with add-on controls that demonstrate emissions of less than 50 percent of the applicable emission limit be exempt from monthly compliance demonstrations, the work practice plan, and the start-up, shutdown, and malfunction reports.

Response: The proposed and final rule are in the format of pounds HAP emitted per pound of coating solids used and were not in the format of a percent HAP emission reduction. This format was chosen to ensure that compliance at different facilities was being compared on an equal basis relative to production levels. Even if a facility were able to demonstrate during a one-time test that emissions were substantially less than the emission limits, that does not assure future compliance because of changes that may occur in the types of materials that are used and the relative amount of materials that are used

(e.g., an increase in the use of higher-HAP coatings or of HAP containing solvents that contain no solids). The compliance calculations included in the rule assure compliance at all times, even as an operation changes over time. Furthermore, monitoring is needed to assure that control devices continue to be operated as they were during the performance test. Therefore, the final rule does not include the simplified compliance demonstration suggested by the commenter.

## 11.0 COMPLIANCE PERIOD

Comment: Several commenters (IV-D-01, IV-D-03 IV-D-06) supported the use of a 12-month rolling average for demonstrating compliance. One commenter (IV-D-01) supported basing the emission limit on a 12-month rolling average of all coatings used because the commenter currently collects data by this method and the commenter predicted that the rule should not result in an excessive amount of additional record keeping. Two commenters (IV-D-03, IV-D-06) supported emission limits based on a 12-month rolling average because it allows flexibility to address planned shutdowns, changes in product demand, and seasonal variations. One commenter (IV-D-03) noted that sources in the automobile and light-duty truck manufacturing industry have periodic shutdowns for maintenance and also have month-to-month changes in production that affect coating operations.

Response: The EPA agrees with the commenters and compliance based on a 12-month rolling average has been retained in the final rule. However, the rule also contains a compliant material option which will allow a facility to determine compliance without having to calculate emissions on a rolling 12-month basis. This will facilitate compliance with fewer calculations for those facilities that can take advantage of this option.

Comment: One commenter (IV-D-06) suggested that the rule should be modified to reflect that the initial compliance period will last 12 months plus the portion of the month between the effective date of the rule and the end of that month. The commenter provided revised language and equations to incorporate this clarification.

Response: We agree with the commenter that the language discussing the initial compliance period and the equations for calculating the emission rate for that period should be revised to reflect that this period is likely to be greater than 12 months for nearly all sources. The commenters suggested changes are reflected in several places and equations in the final rule.

Comment: One commenter (IV-D-06) stated that the final rule should allow a 3-year compliance period for existing area sources that become major sources, rather than 1 year as proposed, because the level of effort needed for existing sources to comply is no different. The commenter cited the organic liquids distribution NESHAP (40 CFR part 63, subpart EEEE), which allows 3 years to comply. The commenter also supported a 3-year compliance period for existing sources.

Response: Existing area sources that become major sources have until the existing source compliance date of 3 years after the effective date of the final rule (date of promulgation) or 1 year after becoming a major source, whichever is later. The EPA expects that compliant coatings and lower-HAP coating technology will be more readily available as more new and existing sources must comply with the rule in the three years between the effective date and the existing source compliance date. Therefore, those area sources that become major sources after the existing source compliance date will have a greater range of compliant products and technologies at their disposal and will not need the three years to come into compliance that is needed by facilities that are currently existing major sources. Furthermore, an area source should know in advance that it plans to expand or make an operational change that will result in becoming a major source. This will allow additional time before it becomes a major source to plan its compliance strategy. The compliance periods included at proposal were retained in the final rule for facilities that become major sources.

## 12.0 COMPLIANCE CALCULATIONS

Comment: One commenter (IV-D-01) requested that they be allowed to calculate and report emissions starting with the mass of coatings used, rather than with the coating volume used. The commenter predicted that they will use the emission rate without add-on controls option to demonstrate compliance. The comment noted that they currently purchase and track their coatings on a “mass” basis, but the rule equations assume coating usage is tracked on a volume basis. The commenter was concerned that the rule would require them to first convert their material usage to volume and then back to mass. This would complicate their emission calculations and increase the potential for errors and misunderstandings, according to the commenter.

Response: We agree with the commenter that it is not necessary to convert from mass of coating to volume of coating to complete the compliance calculations. Various sections of the rule have been revised to state that if you purchase materials or monitor consumption by weight instead of volume, you do not need to determine and keep records of material density and convert weights to volumes. Instead, you may use the material weight in place of the combined terms for density and volume in the equations for demonstrating compliance in the emission rate without add-on controls compliance option and the emission rate with add-on controls option.

Comment: One commenter (IV-D-03) suggested that EPA expand the credit allowed for HAP contained in materials collected for recycling or disposal off-site to include HAP in recycled paints, cleaning and purge materials for facilities with add-on controls. They suggested that the language of §63.4551(e)(4)(i) be revised as follows:

- (i) You may include in the determination only waste materials that are generated by coating operations in the affected source for which you use Equation 1 of this section and that will be treated or disposed by a facility regulated as a TSDF under 40 CFR part 262, 264, 265, or

*266 or by virtue of any other waste collection activity where the source maintains records of the materials collected.*

(ii) The TSDf may be either off-site or on-site. You may not include organic HAP contained in wastewater.

The commenter also stated that credit should be given for materials that are collected and reused in the coating operations on-site without being recycled or treated through a TSDf as waste. Another commenter (IV-D-11) stated that the Emission Rate Without Add-on Controls Option allows sources to take credit for HAP included in materials recycled off-site and suggested that sources that recycle on-site should receive the same credit. The commenter stated that language in §63.4541, 63.4551, and 63.4561(a) suggested that sources with add-on control also receive credit for recycled coatings, thinners or cleaning materials in the compliance calculations. EPA should clarify this in the final rule.

Response: Section 63.4551(e)(4)(i) has not been revised to allow alternative recordkeeping of waste treatment or disposal. The requirements in 40 CFR part 262, 264, 265, or 266 ensure a proper accounting for providing credit for the treatment and disposal of hazardous waste materials that would otherwise be included in the compliance calculations.

Section 63.4551 of the rule has been revised to indicate that if you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed. This change addresses the commenter's request for credit for materials that are collected and reused in the coating operations on-site without being recycled or treated through a TSDf as waste.

Comment: One commenter (IV-D-16) requested that the compliance calculations exclude coatings with no HAP, (e.g. powder coatings) because including powder coatings would reduce expected HAP emissions reductions. The commenter suggested that averaging should be limited to only liquid coatings only.

Response: Inclusion of powder coatings in the compliance calculations was intended to serve as an incentive for sources to use powder coatings in reducing their overall emission level. If a source chooses to use an emission rate (with or without add-on controls) compliance option, powder coatings

can be included in determining the 12-month rolling average emission rate. We expect that increased use of powder coatings will promote this technology as a pollution prevention alternative and will result in greater emission reductions than if powder coatings were specifically excluded from compliance calculations. If a source chooses to omit powder coatings from the emission rate compliance calculations, the source could document that the powder coatings are in compliance under the compliant materials option since powder coatings are essentially 100 percent solids.

## 13.0 TEST METHODS

### 13.1 Comparing Formulation Data and Default HAP Contents to EPA Test Methods

Comment: Two commenters (IV-D-03, IV-D-14) disagreed that EPA test methods should prevail in cases where there is disagreement with formulation data or the default values for the HAP content of solvent blends that are presented in Tables 3 and 4 in the proposed rule. The commenters cited several examples illustrating the variability possible with EPA Method 311 results under different testing conditions. One commenter (IV-D-14) noted also that EPA Method 24 cannot be used for ultraviolet cured coatings and sources must rely on manufacturers' data.

The commenters (IV-D-03, IV-D-14) recommended modifying the rule to say that test data shall govern unless the source can demonstrate to the satisfaction of the enforcement agency that the formulation data were correct. One commenter (IV-D-03) also argued that a source should be held harmless if they used in good faith the default values for solvent blends in Tables 3 and 4 of the rule and Method 311 test results showed higher HAP contents, or the source should be allowed to rebut the Method 311 test results. Otherwise, the commenter argued, sources will not be able to rely on the default values for solvent blends and will need to perform expensive testing of coating materials.

One commenter (IV-D-21) also requested that the final rule allow facilities to rely solely on the manufacturers' representations to demonstrate the HAP content of coatings. The commenter cited, as an example, the fact that the Aerospace Manufacturing and Rework NESHAP does not apply to certain coatings that a facility determines to have HAP contents below 0.1 weight-percent for OSHA-defined carcinogens and 1.0 percent for all other HAP, based solely on the manufacturers' representations.

Response: It is EPA's general regulatory approach for surface coating sources that the EPA test methods will prevail in a discrepancy between formulation data supplied by the coating supplier and

test data, and the facility will be held responsible for deviations from the emission limits due to these inconsistencies. (The enforcement authority will determine if the deviation is a violation of the standard.) Facilities using formulation data for compliance demonstrations should only do so if they are comfortable that the formulation data supplied by the coating supplier are correct. For example, coatings manufacturers should use the appropriate test method or should have certified HAP content documentation provided to them by their raw material suppliers. It is to the benefit of the facility that the facility pursue a high degree of certainty in the formulation data they accept for use in compliance demonstrations.

In §63.4541(a) of the proposed rule, a facility could use either EPA Method 311, EPA Method 24, an alternative method's test results or manufacturers's formulation data to determine the HAP content of materials used in compliance demonstrations. A facility could use the default HAP contents for solvent blends in Tables 3 and 4. However, if a difference was present between the test results and manufacturers' data or the default values for solvent blends, the test method results would take precedence. As suggested by the commenter, a provision has been added to §63.4541(a) that in a disagreement between manufacturers' data or the default values, and the results of a test, the test method results will not take precedence if you demonstrate to the satisfaction of the enforcement agency that the formulation data or default values were correct. The demonstration could include, among other things, a showing that the formulation data or default values and test method data were within the precision or accuracy of the test method results and no significant difference exists between the two.

Comment: One commenter (IV-D-03) requested that EPA include the following procedures to assure consistency in using EPA Method 311, or at least include language allowing a facility to rebut Method 311 test results:

- (1) The facility should have the option to divide any sample collected by any agency that implements and enforces the MACT standard.
- (2) The facility will provide to the applicable agency its determination of the proper test parameters to be used and the temperature at which the analysis should be performed; and

- (3) Both the applicable control agency and the facility shall be authorized to be present while testing and/or sampling under Method 311 is being conducted.

Response: The final rule includes language allowing a facility to rebut the results of a Method 311 test of HAP content.

Comment: Three commenters (IV-D-03, IV-D-14, IV-G-01) stated that the final rule should allow HAP concentrations to be based on the average of a range on an MSDS, adjusted to a maximum composition of 100 percent, where HAP content is reported as a range. According to the commenters, a single MSDS is often provided by the supplier with HAP contents expressed in ranges to represent a group of different colors of the same product. One commenter (IV-G-01) stated that providing specific formulation data for each color would be burdensome with no environmental benefit. One commenter (IV-D-03) suggested that using the average of the reported range would prevent a facility from having to determine the actual composition, and thus would be consistent with TRI reporting. The commenter (IV-D-03) argued that a requirement to use the upper limit of a range would lead to a gross overstatement of the HAP content of materials.

Response: If a range of organic HAP is presented, it is up to the user to determine the appropriate value. It is important to remember, however, that in the event of any inconsistency between formulation data and Method 311 analyses, the Method 311 data will take precedence unless the user can demonstrate to the satisfaction of the enforcement agency that the formulation data were correct.

Comment: One commenter (IV-D-18) representing a State Department of Environmental Conservation supported the idea of providing default organic HAP mass fractions for certain solvent blends in Tables 3 and 4 of Subpart PPPP, but questioned how the default HAP contents were generated. The commenter believed that some solvent names and CAS registry numbers are used interchangeably such that two CAS numbers with different HAP contents may be referred to by the same name. This practice occurs because often CAS numbers are assigned based on properties other than HAP content. The commenter requested that the tables be amended to reflect common names of solvent blends and that the highest HAP content be used in the table when a common name is associated with more than one CAS number.

Response: The default HAP contents were generated from a gas-chromatograph (GC) analysis of common solvent blends performed by the Chemical Manufacturers Association and a leading supplier of petroleum solvents to the coatings industry.<sup>2</sup>

The final rule provides additional instructions that were not included in the proposed rule for the use of the default HAP contents for solvent blends in Tables 3 and 4 of the rule. If a solvent blend matches both the name and CAS number for an entry in Table 3, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number must be used, or the organic HAP mass fraction from Table 4 must be used if neither the name or CAS number match. However, if a measurement of HAP content using EPA Method 311 reveals a higher HAP content than from using the defaults values in the tables, then the Method 311 results will take precedence unless the facility can demonstrate that the default values were correct.

### 13.2 Using OSHA Reporting Cutoffs When Determining HAP Content

Comment: One commenter (IV-D-06) supported using the OSHA cutoffs for evaluating HAP content.

Response: The EPA agrees that use of the OSHA levels is appropriate. The OSHA levels are common reporting thresholds that are already in use, are reflected on MSDS sheets for materials, and are familiar to material suppliers and users. The use of these thresholds will minimize the recordkeeping and reporting burden.

### 13.3 Reactive Adhesives

Comment: Four commenters (IV-D-13, IV-D-17, IV-D-24, IV-G-3) stated that the final rule should allow sources or materials suppliers to use alternatives to EPA Method 24 to determine the amount of HAP that is actually emitted from reactive adhesives as they are used and should include a

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<sup>2</sup>Memorandum from Paul Almodovar, U.S. EPA/OAQPS/CCPG, to CCPG Project teams and Project Files. November 19, 1998. "Petroleum Solvent Blends and Associated HAP Contents." (Docket ID No. OAR-2003-0074, Formerly Docket A-99-12).

definition of reactive adhesives in the rule. The proposed rule and associated test methods assumed that all HAP contained in coatings or additives are emitted. However, in reactive adhesives, some of the HAP species react with other ingredients to form solids and are not emitted to the atmosphere. Therefore, the amount of HAP emitted can be significantly less than the amount of HAP present in the liquid adhesive. The commenters stated that an alternative approved method could be used to determine HAP content for compliance with the “compliant material” option or when determining emission rate for compliance with the “emission rate without add on control” option.

One commenter (IV-D-24) described three examples of reactive adhesives: urethane systems, methyl methacrylate systems and melamine high-temperature cure systems. Urethane adhesives contain isocyanates which are consumed during curing and emissions are generally considered to be less than 0.005 percent of the total material weight as applied. Methyl methacrylate containing adhesive systems used in open molded composites are catalyzed by peroxide to form a hardened polymer. Supplier information indicates that HAP emissions are less than 0.05 percent of the total material weight. On the other hand, melamine high-temperature cure systems have low HAP content as supplied, but emit HAP in the form of formaldehyde during the cure. The commenter suggested that some of the floor-setting facilities use large quantities of these melamine adhesives, and this could result in an underestimation of emissions in the MACT floor.

Response: An alternative method for determining the fraction of HAP emitted from reactive adhesives has been included as an appendix to the final rule. Sources using reactive adhesives may use this method for demonstrating compliance based on the HAP actually emitted, rather than using Method 311, Method 24, or composition data. The method relies on preparing a sample (of known weight) of the adhesive as it will be applied, allowing it to fully cure, baking the sample, and then weighing the cured adhesive to determine the weight loss. The weight loss represents the volatile fraction that is emitted from the adhesive.

We reviewed the coatings and HAP species that were found in the coatings used by the MACT floor facilities. Melamine coatings were not used by the floor facilities in any of the four subcategories, so accounting for the formaldehyde emissions that evolve from these coatings during curing would not have affected the outcome of the MACT analysis.

## 14.0 MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

Comment: Two commenters (IV-D-03, IV-D-15) recommended that §63.4510 should be revised to exempt sources from the requirement to submit an initial notification if they have already submitted a §112(j) Part 1 Application to States regarding the Plastic Parts and Products Surface Coating MACT.

Response: The General Provisions specified in 40 CFR 63 Subpart A apply to all NESHAP source categories in Part 63. Under §63.9(b), the owner or operator of a facility subject to a NESHAP for a given source category must submit an initial, written notification to the EPA within the applicable time period identifying the facility and the specific NESHAP subpart to which the facility is subject. In this case, the owner or operator of a facility with plastic parts and products surface coating operations subject to the NESHAP is required to prepare and submit an initial notification. Section 112(j) of the Act requires owners and operators of major sources within a source category to apply for a Title V permit should the EPA fail to promulgate emission standards for that source category by the date specified in the regulatory schedule established through Section 112(e) of the Act. The application requirements are specified under 40 CFR 63 Subpart B. Although the Subpart B application requirements include some of the same information required for the Subpart A initial notification (e.g., facility name, address, brief description of source), the two documents serve different administrative purposes under the NESHAP program. Therefore, it is not appropriate to provide an exemption in the final rule as requested by the commenters.

Comment: One commenter (IV-D-06) requested that the period for submitting the notification of compliance status be increased from 30 to 60 days to allow sufficient time to compile information. The commenter (IV-D-06) noted other NESHAPs such as Ferroalloys Production, Vegetable Oil, and Wet Formed Fiberglass Mats (subparts XXX, GGGG, and HHHH) allow 60 days for this notification.

Response: The requirement to submit a notification of compliance status 30 days after the completion of the initial compliance period has been retained in the final rule and has not been extended to 60 days. The 30-day reporting period is consistent with other surface coating NESHAP and should be an adequate period of time for this source category. The information that a facility needs to demonstrate compliance can be compiled on a monthly basis during the initial 12-month compliance period. Therefore, all that is needed in the 30 days after the end of the initial compliance period is to perform the compliance calculations to reflect the final month of the initial compliance period and to assemble the notification. However, if a particular source needs additional time or wishes to adjust the schedule, §63.9(i) of the General Provisions specifies procedures for requesting an alternative reporting schedule or postmark date. Requests must be submitted to and approved by the Administrator (or their delegated representative, such as a State agency) as specified in the General Provisions.

Comment: One commenter (IV-D-11) suggested that the schedule for submitting semi-annual compliance reports should coincide with existing Title V operating permits. Although EPA has proposed this, the commenter stated that EPA did not address the problems that individual States have varying submittal dates, whereas the EPA dates are fixed. The commenter requested that EPA discuss how to resolve the differences in compliance periods or submittal dates.

Response: The final rule, consistent with the proposed rule, allows for an affected source to submit its semiannual compliance report along with, or as part of, its 6-month monitoring report required by 40 CFR part 70 or part 71. The reports can be submitted on the same schedule as the Title V semiannual reports. See §63.4520(a)(1)(iv) and (a)(2) of the final rule.

Comment: One commenter (IV-D-03) stated that section 63.4520(a)(4), which includes the requirement to report that no deviations occurred, should be deleted and the rule should defer to Title V reporting requirements, specifically 40 CFR 70.6(a)(3)(iii)(A). At a minimum, EPA should clarify that the statement is not a guarantee that there were no deviations because all certifications are based on information and belief formed after reasonable review of the monitoring information. The fact a deviation is missed or overlooked is not itself a violation, according to the commenter.

Response: We disagree with the commenter that the affirmative statements regarding the absence of certain deviations required by 63.4520(a)(4) should be deleted. As 6-month monitoring

reports are not required by part 70 or part 71 to contain such affirmative statements, there is no duplication in requiring such statements under this rule. Such affirmative statements allow a permitting authority to quickly ascertain whether a source has experienced certain deviations which in turn allows for the more efficient allocation of resources.

Comment: One commenter (IV-D-06) stated that if the compliant materials option is used, the final rule should not require records of the volume of compliant materials used. This information would serve no purpose. The commenter has proposed alternative language for §63.4530(d) with new text underlined:

(d) A record of the name and volume of each coating, thinner or other additive, and cleaning material used during each compliance period. If you are using the compliant material option for an individual coating operation, or for multiple coating operations as a group, or for the entire affected all-coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.

Response: The EPA agrees that these records are not needed if a source is using the compliant materials option for all coating operations and plans to do so at all times in the future. However, EPA disagrees that this information would serve no purpose and is maintaining this requirement in the final rule for the following reasons. Keeping a record of the volume of each coating used allows verification that all coating materials used (except those that qualify for the low volume exemption) have been accounted for and included in the compliance demonstration. If a source is using the compliant materials option for some coating operations and the emission rate without add-on controls or the emission rate with add-on controls option for other coating operations, the source will need records of the amount of coating used in each operation under each compliance option to account for all materials subject to this rule. Similarly, if a source switches from the compliant materials option to another option, the source will need to demonstrate that it is in compliance based on the past 12 months of data and consumption data would be needed for that demonstration. Finally, other air programs under the Act and other environmental programs frequently require reporting of environmental releases (such as the Toxic Release Inventory) that must be calculated from consumption data, so it is likely that these records are already maintained by those sources that will be subject to this rule.

As suggested by the commenter, many source may use purchase record which they already have available to determine usage, and this is allowed by the rule. In many cases, a facility can use purchase records and make the assumption that all the coating materials that are purchased are used in their coating operation in order to simplify compliance calculations. However, in some cases, purchase records would not be sufficient. For example, if a facility is using the same coatings for different surface coating operations that are subject to different emission limits, or if the facility has elected to use different compliance demonstration options for different coating lines or operations within the facility, then the facility will need to track coating usage in their different coating operations.

Comment: One commenter (IV-D-06) requested that the rule require that records be “readily accessible” from the site, not stored on site. This would allow records to be stored electronically on off-site servers. Another commenter (IV-G-01) requested that making records available electronically from the site be added as an alternative to storing hard copies of records onsite.

Response: The language in the rule is consistent with, and references, §63.10(b)(1) of the NESHAP General Provisions, and therefore, has not been revised. It should be noted that the rule requires that a source keep records in a form suitable and readily available for expeditious review. The records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche. This language would include centralized records that are readily accessible from a computer onsite.

## 15.0 ADD-ON CONTROLS

### 15.1 General Comments

Comment: One commenter (IV-D-06) requested that boilers be added to the list of control options in this rule. The commenter also requested that no performance testing or monitoring be required for boilers with design heat input capacity greater than or equal to 44 megawatts or boilers into which the vent stream is introduced with the primary fuel. The commenter also requested that such boilers be assumed to achieve 98 percent control efficiency for purposes of emissions calculations required by the rule. The commenter cited 14 other NESHAP which include this as an option and suggested specific regulatory language to address this option.

Response: Although other NESHAP have included provisions to use boilers as add-on control devices, they have not been included in surface coating NESHAP since they have not been commonly used as add-on controls in the surface coating industry. However, a facility for which this is a feasible control option may request a waiver of performance testing under §63.7(h) and apply to use alternative monitoring of a boiler as an add-on control device under §63.8(f) of the General Provisions. The facility would still need to measure and monitor capture efficiency of the emission capture system and include this in their initial and continuing compliance demonstrations.

Another approach that you may use is the equivalency by permit option in 40 CFR part 63, subpart E (§63.94). Under this approach, you may design an emissions control program that is suited for your process or plant as long as you can demonstrate that your program will achieve the same emissions reductions as the NESHAP. You must then work with your State, local, or tribal air pollution control agency to submit an equivalency demonstration. This equivalency demonstration will be reviewed by the appropriate EPA Regional Office. The equivalency demonstration is approved as

part of the operating permit approval process. For more information, please see the section 112(l) website at [http://www.epa.gov/ttn/atw/112\(l\)/112-lpg.html](http://www.epa.gov/ttn/atw/112(l)/112-lpg.html).

Comment: One commenter (IV-D-13) stated that the work practices and recordkeeping requirements for sources using add-on controls are overly burdensome. The commenter suggested that sources with add-on controls where the emissions are less than 50-percent of the allowable limit should be exempt from the work practice requirements and that sources using a thermal oxidizer should only be required to record the oxidation temperature. The commenter argued that the burden of the proposed requirements is a disincentive to using add-on controls.

A second commenter (IV-G-01) stated that add-on controls are clearly a superior technology and that the only requirements should be an initial demonstration of that capture and control will reduce HAP emissions to the level equivalent to the emission limits. After that, ongoing emissions calculations should not be required. A simple operating parameter should be the only monitoring requirement. For existing add-on controls, no compliance demonstration should be necessary and existing monitoring conditions should be retained. The commenter also suggested that add-on controls that achieve emissions of less than 50 percent of the applicable limit be required only to demonstrate control efficiency one time and that all usage tracking, ongoing compliance calculations, and continuous monitoring should be waived.

Response: The proposed and final rule are in the format of lb HAP emitted per pound of coating solids used and were not in the format of a percent HAP emission reduction. This format was chosen to ensure that compliance at different facilities was being compared on an equal basis relative to production levels. Even if a facility were able to demonstrate during a one-time test that emissions were substantially less than the emission limits, that does not assure future compliance because of changes that may occur in the types of materials that are used and the relative amount of materials that are used (e.g., an increase in the use of higher-HAP coatings or of HAP containing solvents that contain no solids). The compliance calculations included in the rule assure compliance at all times, even as an operation changes over time. Furthermore, monitoring is needed to assure that control devices continue to be operated as they were during the performance test. Therefore, the final rule does not include the simplified compliance demonstration suggested by the commenters.

## 15.2 Performance Testing Requirements

Comment: One commenter (IV-D-11) stated that the regulations should clearly specify that initial compliance testing for Subpart PPPP is required only at the initial startup of the plant, and not repeated for permit renewals.

Response: The final rule specifies that an initial performance test is required during which emission capture system and add-on control device operating limits are established. After the initial compliance demonstration, compliance with the operating limits demonstrates that the emission capture system and add-on control device are operating as they did during the performance test. The final rule does not specify whether additional testing is required for permit renewals. The need for additional testing at any time after the initial compliance demonstration will be determined by the permitting authority based on site-specific circumstances.

Comment: One commenter (IV-D-09) stated that capture efficiency test runs shorter than 3 hours should be allowed if they are representative of VOC capture system performance.

Response: The EPA Methods 204 and 204A through 204F specify that each capture efficiency test run should be 3 hours or the duration of a production run, whichever is longer, up to a maximum of 8 hours per run. Sources can apply for approval to use a shorter period under §63.7(f) of the General Provisions or apply for approval of an alternative protocol meeting the data quality objective (DQO) or lower confidence limit (LCL) criteria in Appendix A to 40 CFR 63 subpart K.

Comment: One commenter (IV-D-09) asked that §63.4581 and other sections of the rule be revised to replace TVH with the more familiar total organic compounds (TOC), volatile organic compounds (VOC), or as “organic HAP” as determined by EPA Method 25 or 25A (Method 25 measures TOC or VOC without methane for sources controlled by combustion devices using natural gas as fuel). The commenter argued that this would be more consistent with other NESHAP that require performance tests to measure TOC excluding methane and ethane.

Response: We do not agree with the commenters’ concern and believe the definition for total volatile hydrocarbon (TVH) is appropriate for the intended use in the test methods. Methods 204A through 204F are the correct methods for determining capture efficiency. All of these methods rely on the use of a flame ionization analyzer (FIA) as the analytical technique. This rule does not change or

modify the methods except to change the terminology of the compounds measured by the (FIA) from “VOC” to “TVH.” If the commenter is not concerned with the terminology but, in fact, believes that Methods 204A through 204F are not the appropriate methods for determining capture efficiency (or wishes to modify the methods in some way), the owner/operator can apply for the use of an alternative method under the provisions of §63.4565(e).

Comment: One commenter (IV-D-06) stated that the rule should allow the use of Method 18 as an alternative for testing add-on controls. Methods 25 and 25A do not differentiate between HAP and non-HAP organic material and, therefore, are inappropriate when a coating contains a mixture of HAP and non-HAPs.

Response: We have not included Method 18 as a compliance test method in the final rule. We recognize that Method 18 also is an appropriate method for determining compliance in many instances. However, in some cases, (such as when the emission stream includes many species of HAP) the use of Method 18 becomes difficult to apply. If the owner or operator believes Method 18 is an appropriate (or preferred) method for demonstrating compliance, the owner or operator can request the use of Method 18 under the provisions for using an alternative test procedure (40 CFR 63.7(f)).

Comment: One commenter (IV-D-09) argued that a facility should be allowed to use previous tests of capture system efficiency and control device destruction efficiency to demonstrate compliance. The commenter suggested adding the same language found in §63.5160(a) of the metal coil coating MACT to establish requirements for data from previous tests:

- (1) The control device is equipped with continuous emission monitors [CEM] for determining total organic volatile matter concentration, and capture efficiency has been determined in accordance with the requirements of this subpart; and the continuous emission monitors are used to demonstrate continuous compliance in accordance with § 63.5150(a)(2); or
- (2) You have received a waiver of performance testing under § 63.7(h); or
- (3) The control device is a solvent recovery system and you choose to comply by means of a monthly liquid-liquid material balance.

A second commenter (IV-D-03) stated that §63.4560(a) and (b) should be revised to allow sources to use previous performance tests, transfer efficiency tests, or representative spraybooth tests

that indicate capture efficiency using the EPA/Auto protocol under Title V to substitute for the tests required under the rule.

Response: We agree that the most recent test data can be used to demonstrate compliance and to establish the operating limits required by this rule, as long as the previous test data meets the performance test requirements detailed in the final rule. However, depending on the actual timing and methodology of the most recent performance test, you would need to discuss the need for new test data with your enforcement authority and include such information in your initial notification.

The waiver of performance testing for a control device equipped with a CEM in the metal coil rule would only apply to sources in the plastic parts source category if the CEM measured both inlet and outlet concentration to determine destruction efficiency. However, since the plastic parts rule requires that a source determine control device destruction efficiency, a facility using a CEM as specified in the metal coil rule would be fulfilling (at least in part) the testing requirements in the plastic parts rule if they obtained permission to use an alternative method under §63.7(f) of the General Provisions.

Waivers of performance testing as specified by the General Provisions in §63.7(h) are granted on a case-by-case basis and must be applied for as specified in §63.7(h). The final rule cross references this provision which clarifies the conditions under which a waiver may be granted.

Sources that are using a solvent recovery system and performing a liquid-liquid material balance are already exempt from many of the performance testing requirements in the final rule.

Comment: One commenter (IV-D-06) requested that, for operations with an emission capture system for HAP during curing or drying, the use of heat during curing or drying should be presumed to satisfy the criteria that 100 percent of HAP are captured. The commenter argued that residual emissions from parts that leave heated drying and curing ovens will be minimal and a facility should be allowed to assume that all of the HAP were emitted within the ovens that constitute the emission capture system.

Response: As defined in §63.4581, a “coating operation” always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning

material on the specific part. Therefore, all process equipment in which coating application and curing occurs must be accounted for in a capture efficiency determination. If HAP are emitted after a part leaves the emission capture system (such as the final drying and curing oven) then these emissions must be accounted for in determining capture efficiency and the facility cannot assume that all emissions are captured. However, if the coating is, in fact, dried or cured (e.g., “dry to the touch”) as it leaves the emission capture system (regardless of whether or not heat is used) and this is confirmed by the permitting agency's representative who may be observing the performance test, then the facility and the permitting agency may assume that subsequent residual emissions are negligible.

### 15.3 Work Practices Requirements

Comment: One commenter (IV-D-05) requested that EPA remove waste handling requirements from the work practice standards associated with add-on controls and require that it is done in accordance with RCRA. Waste is covered by RCRA regulations and these do not increase emission reductions more than RCRA.

Comment: A second commenter (IV-D-03) also requested that the work practices in §63.4493 for sources using add-on controls should be deleted because they duplicate requirements in RCRA regulations in 40 CFR parts 262 and 265, but allowed that these provisions could remain if cleaning operations are removed from the emission limits and regulated only by these work practice requirements. The commenter also argues that EPA's rationale for these requirements is fundamentally flawed because it is based on the concern that a facility may use records other than purchase records to estimate usage of coatings and other materials and that it is possible that HAP emissions during material handling, mixing, and storage would not be reflected in a facility's emission rate calculations. The commenter suggested that other types of records besides purchase records more accurately reflect actual usage. The commenter noted that most automobile and light duty truck manufacturing facilities already track materials using guidelines equivalent to EPA's “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” which are more accurate than purchase records.

Response: The EPA believes that the commenter misunderstood the rationale for this requirement. The EPA agrees with the commenter that the most accurate records of material usage should be used, when available, and these may not necessarily be purchase records. The EPA agrees that the protocol described by the commenter could be more accurate than purchase records.

The intent of the work practice standards is to have a complete plan for minimizing air emissions from raw materials storage and handling through materials use and waste handling, because all of these areas are potential sources of emissions from the coating operation covered by the plastic parts coating rule. Emissions from material handling, storage, or mixing that could potentially occur outside the capture system would not be reduced by the capture and control system, but the consumption of those materials would be included in the compliance calculation for the controlled coating operation, as if those emissions were controlled. Therefore, the work practices specified in the plan are intended to minimize the potential for these emissions outside the capture system.

The final rule includes the waste handling requirements in the work practice standards in §63.4493. This section requires that a facility develop a work practices plan which specifies that, among other things, waste materials be stored in closed containers, spills of waste must be minimized, and waste must be conveyed in closed containers or pipes. The commenter provided no supporting data or information that complying with these requirements would present an additional burden or conflict with the RCRA requirements.

Comment: One commenter (IV-D-03) requested that a facility using an add-on control device should be allowed to substitute a work practice plan required by another rule, such as the Automobiles and Light-Duty Trucks NESHAP (40 CFR 63, subpart IIII),<sup>3</sup> for the one required by the plastic parts rule.

Response: Section 63.4493(c) in the proposed and final rule allows the EPA to grant a facility permission to use an alternative to the work practices standard in that section. Those alternatives include work practices plans that are developed to comply with another NESHAP that include, at a minimum, the same practices specified in §63.4493(b). Furthermore, as explained in section 6.2, the final rule allows sources meeting the applicability criteria of both the Automobiles and Light-Duty

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<sup>3</sup>Currently under development.

Trucks NESHAP and the Plastic Parts and Products NESHAP to comply with the Automobiles and Light-Duty Trucks NESHAP for all their surface coating of plastic parts intended for use in automobiles or light-duty trucks. If a facility is using this compliance approach, they can follow their subpart IIII work practice plan and do not need to develop a separate plan for plastic parts coating operations.

Comment: One commenter (IV-D-03) noted that §63.4530 requires a source to keep a record that the work practices plan is being continuously implemented. The commenter inferred that this would require a source to document that the work practices plan for sources with add-on controls continually minimizes emissions. The commenter believes it is common sense that it will reduce emissions if the plan is continually followed.

Response: Section 63.4530 contains no requirement that the source document that the work practices plan continually minimizes emissions. Section 63.4563(e) requires you to demonstrate continuous compliance with the work practice standards in §63.4493. That is, you must demonstrate that the procedures you specified in your plan have been followed.

#### 15.4 Operating Limits and Monitoring for Add-on Controls

Comment: One commenter (IV-D-11) stated that the operating limits for add-on control requirements should account for typical operating variability. According to the commenter, the requirements in the rule for developing operating limits will lead to infeasible operating limits since average values measured during a performance test will become minimum or maximum allowable values for operating limits. The commenter predicted that this approach would cause a well-operated system to fall out of compliance for at least 50 percent of the time due to normal system variation. The commenter recommended that operating limits should be assigned an allowable percent variability to account for the measurement accuracy and inherent variability of a well-operated coating system and control system. In addition, the rule should also allow companies to test over a range of conditions and establish operating limits that constitute compliance under varying conditions.

Response: Establishing the add-on control device operating limit at the level demonstrated during the performance test is appropriate. The operating limit is based on a 3- hour average (rather than an instantaneous or 15-minute value, for example) to accommodate normal variation during

operation. In general, selection of the representative operating parameters for both the process and the control device for conducting the performance test is an important, and sometimes complex, task.

The facility does have the option of operating control devices, such as thermal oxidizers, at a lower set-point during the performance test in order to provide a greater compliance margin during normal operation. For example, assume the facility normally operates the thermal oxidizer at 1600° F (i.e., the auxiliary burner set point is 1600° F) but decided to lower the set point to 1580° F during the performance test, resulting in an 3-hour average temperature of 1575° F. The operating limit is 1575° F. After the performance test, the facility chooses to reset the incinerator operating set point to 1600° F to provide a compliance margin. There is nothing to prevent the facility from resetting the set point to the lower value for the next performance test, thereby maintaining the same operating conditions as previously demonstrated. Furthermore, under this regulation, the facility could establish a new, lower operating limit by conducting future (or additional) performance tests which demonstrate control device efficiency at lower operating temperatures. Of course, if a performance test is going to be conducted at a temperature lower than the existing operating limit, it is prudent to assure that this is clearly noted in the test plan submitted to the permitting agency and their approval is obtained.

Comment: One commenter (IV-D-06) stated that a number of performance specifications for add-on controls listed in §63.4568(c), (f), and (g) should be deleted because they are vague, unnecessary, out-dated, and cannot be certified under Title V. Specifically, the commenter recommended that the following provisions be deleted: §§63.4568(c)(3)(iii), (v), and (vii); (f)(2)(ii), (iv), (v), (vi), and (vii); (g)(1)(ii) and (iv); and (g)(2)(ii), (iii), (iv) and (vi).

Response: Many of the requirements in §63.4568 have been revised since proposal, including those cited by the commenter. The final provisions in this section are substantially more concise and specific than those contained in the proposed rule.

The final rule does not include the requirements for temperature sensor shielding, semiannual electronic calibrations, and monthly inspections (proposed §§63.4568(c)(3)(iii), (v), and (vii)). The final rule requires a validation check for temperature sensors before using the sensor for the first time or when relocating or replacing the sensor, by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature. The final rule also

requires an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices. These procedures do not require that a thermal oxidizer be shut down. The provisions for temperature sensors in the final rule are consistent with the provisions for temperature sensors in other surface coating rules with similar emission sources and control devices.

The final rule does not require the use of a manometer to check the calibration of pressure sensors (proposed §63.4568 (f)(2)(v)) and has removed other provisions for pressure sensors in §63.4568(f)(2)(ii), (vi), and (vii). The final rule requires you to perform an initial calibration of the sensor according to the manufacturer's requirements and to conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources. The final rule uses the term "pressure sensor" instead of "pressure gauge."

The final rule does not require daily inspection of the pressure tap in pressure gauges or sensors (proposed §§63.4568(f)(2)(iv) and (g)(2)(iii)). You are required to conduct accuracy audits every quarter and after every deviation; perform monthly leak checks on pressure connections; and perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

The requirements in the final rule for monthly leak checks of mechanical connections for sensors of pressure drop have been revised since proposal. Section 63.4568(g)(2)(vi) of the final rule specifies that the monthly leak checks on pressure connections must ensure that a pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds. We feel that monthly leak checks are still needed to ensure that the pressure monitoring devices are operating properly. Less frequent checks could lead to excess emissions over a prolonged period because of faulty readings for pressure drop on emission capture systems or add-on control devices.

The final rule does not include the proposed requirements for monthly electrical connection and integrity checks (proposed §§63.4568 (c)(3)(vii), (f)(2)(vii), (g)(2)(vi)). We agree with the commenter that these checks could themselves compromise the integrity of the electrical connections. The final rule includes provisions that require monthly inspections of each continuous parameter monitoring system

sensor only if there is not a redundant sensor. The final requirements are adequate to assure compliance and are consistent with those in other surface coating rules with similar emission sources and control devices.

Comment: One commenter (IV-D-11) argued that the frequency of the preventative maintenance activities and quality assurance inspections would not be cost effective or useful. According to the commenter, the systems are relatively reliable and operate in a clean and non-hostile environment necessary for a high quality coating finish. The commenter suggested that EPA perform a cost-benefit analysis on performing operating and preventative maintenance requirements less frequently and should work with affected sources to obtain any missing data needed on industry practices in this area. According to the commenter, the rule should also allow source owners the flexibility to reduce the frequency of maintenance and inspections in cases where experience demonstrates that the control units can be as reliable without the frequency of activity as required by the rule.

Response: As noted in the response to the previous comment, many of the inspection and maintenance requirements for emission capture systems and add-on control devices have been revised in response to comments. In several cases, the frequency of these activities has been reduced and this will reduce the potential cost impact of these requirements. The final monitoring requirements represent what EPA believes to be the minimum needed to assure compliance with the emission limits in the final rule. However, an owner or operator may apply to the Administrator for permission to use alternative monitoring under §63.8(f) of the General Provisions.

Comment: One commenter (IV-D-11) suggested allowing facilities to use an approved Continuous Assurance Monitoring (CAM) monitoring system as an alternative to the monitoring requirements of Subpart PPPP. Some facilities (e.g., those with thermal or catalytic oxidizers) may already be required to comply with CAM which, in some cases, has similar testing, monitoring, and reporting requirements to those in the proposed rule.

Response: The CAM rule (40 CFR 64) applies to facilities that operate emission control devices in accordance with Federally enforceable regulations issued prior to 1990. These Federal regulations are not limited to EPA regulations and instead include any regulation that pertains to the Title V operating permit.

With the passage of the 1990 Clean Air Act Amendments, EPA incorporated monitoring provision into all emission regulations. In some cases, this monitoring is more stringent than the monitoring required under the CAM rule. Therefore, the CAM rule does not apply to facilities that are subject to EPA regulations issued after 1990. However, it is possible that some portions of a facility operate control devices in order to comply with emission standards issued prior to 1990. In this case, these portions of the facility must comply with the requirements of the CAM rule.

The control device monitoring provisions of this rule have been developed to ensure compliance with the numerical emission limits for HAP, expressed as lb HAP per lb coating solids. No emission limits issued prior to 1990 were intended to limit HAP emissions from surface coating operations. It is likely that monitoring provisions at individual facilities approved under the CAM rule are substantially different from those in the final plastic parts rule. Therefore, it is not practical to include an allowance to use any monitoring system that was approved under CAM as an alternative to the monitoring provisions in the final plastic parts rule. Each monitoring system approved under the CAM rule would need to be compared to the final plastic parts rule on a case-by-case basis.

Comment: One commenter (IV-D-05) requested provisions to address non-regenerative carbon adsorbers in the same way as the Aerospace Manufacturing and Rework NESHAP (40 CFR 63 subpart GG). The commenter argued that this would allow a facility to determine efficiency through engineering analysis or testing and would allow breakthrough detection using a continuous emission monitor (CEM) or portable device.

Response: The plastic parts database includes several major sources with carbon adsorbers, but all of these are regenerative carbon adsorbers. The database also includes 25 facilities with non-regenerative carbon adsorbers that are all owned by an eye-glass lens manufacturing company, but none of these are major sources. Because of the limited pollution control capacity of non-regenerative carbon adsorbers, it is unlikely that a major source plastic parts surface coating operation would use one in order to comply with this rule. In the unlikely event that a source chooses to use a non-regenerative carbon adsorber, they could apply to the EPA for approval of alternative monitoring under §63.8(f) of the General Provisions.

Comment: One commenter (IV-D-16) requested several clarifications regarding vapor concentrators:

- Should the required temperature monitor for concentrators be at the inlet or outlet?
- Should the required pressure drop monitor be used for both fixed bed and fluidized bed concentrators?
- The commenter recommended that the rule require monitoring of the pressure drop of the pre-concentrator filter, not the concentrator itself.
- Should a concentrator's vent to atmosphere be monitored for vapor concentration as required by some NESHAPs?
- For rotary concentrators, should the rotation rate be monitored?
- For monitoring, should the minimum temperature requirement and maximum pressure drop requirement apply to the average value or each recorded value? The commenter recommended that the 3-hour block averages of temperature and pressure drop allow an acceptable difference compared to the test average so that about half of the block averages do not fail to comply, even under normal conditions.

Response: The temperature monitor for concentrators should be at the outlet of the concentrator to ensure complete desorption of the concentrator, and hence system efficiency.

Pressure drop monitors must be used on both fixed bed and fluidized bed concentrators, as well as for rotary concentrators. The pressure drop must be monitored across the bed or rotor of the concentrator in order to detect leakage through damaged seals around a rotor or channels in a fixed or fluidized bed. Monitoring pressure drop across pre-filters will aid in equipment maintenance, but will not affect regulatory compliance.

Vapor concentration monitors are not required for concentrators in this rule. Since the adsorptive bed or rotor is continuously regenerated and regeneration temperature and pressure drop across the bed or rotor are monitored, the potential for bed breakthrough is minimized, if not eliminated.

Equipment vendors recommend and provide devices to confirm that rotary concentrators are rotating, but do not recommend that revolutions per hour be monitored.

As stated in the responses to earlier comments in this section, establishing the add-on control device operating limit at the average level demonstrated during the performance test is appropriate.

#### 15.5 Add-on Control Failures, Bypasses, and Deviations

Comment: One commenter (IV-D-16) requested that EPA clarify how add-on control equipment failures should be included in limits and how sources should account for add-on control bypasses when they use low-HAP materials that do not need to be directed to the add-on control device to comply.

Response: If a source experiences an add-on control device failure or bypass, then the source must assume that the coating operations performed during that failure or bypass are “uncontrolled” and all HAP contained in those coatings that would otherwise be controlled are emitted to the atmosphere. The final rule has been revised to clarify how these periods should be handled in demonstrating compliance and the compliance calculations. If a source uses a low-HAP material that does not need to be directed to the add-on control device to comply, then the source may either do a separate compliance demonstration for that material, using either the compliant material option or the emission rate without add-on control option, or include those coatings in the add-on control device compliance calculations and assume that they were uncontrolled and all HAP were emitted and not captured by the add-on control.

Comment: One commenter (IV-D-06) requested that flow direction indicators be allowed as a means of demonstrating that control systems are not bypassed. According to the commenter, the proposed requirements imply that bypasses have valves and this is not feasible under some bypass line configurations.

Response: Section 63.4568(b)(1) in the final rule includes a new paragraph (v) that allows for a flow direction indicator. The flow direction indicator must that 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. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator

must be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

Comment: Several commenters (IV-D-03, IV-D-06, IV-D-09) objected to the requirement that emissions calculations during deviation periods must assume that the capture system and control device are achieving zero-percent efficiency.

One commenter (IV-D-03) stated that this approach is burdensome and penalizes facilities for minor parameter reporting problems, such as temperature read-out malfunctions. The commenter suggested that a facility should be allowed to rebut the presumed zero-efficiency with other available data, such as fuel consumption or manual temperature recordings. The commenter requested that §§63.4561(h) and 63.4568(a) be revised to include a generic method to calculate add-on control efficiency when an excursion or deviation has occurred. The commenter suggested allowing a source to decrease efficiency by a percentage of the hours the excursion occurred out of the total operating hours, similar to the approach in §63.3561(h) of the proposed metal can surface coating rule.

One commenter (IV-D-06) requested that EPA allow companies to rebut the presumption that zero control efficiency and demonstrate through other credible evidence that some or all of the emissions were collected and controlled (to some degree) during a deviation, and use a number other than zero in the emissions calculations. The commenter also argued that if the deviation is the result of a SSM event and the company operated according to their SSM plan, then the emission calculations should be done assuming the control device is achieving its normal efficiency because the SSM event should not be considered a violation.

The commenter (IV-D-06) recommended that §63.4568(a)(6) should be revised to include a statement that emission capture system and add-on control device efficiency should not be set to zero during such periods in the calculation of 12-month emission rates and established efficiencies should be used in the absence of any evidence to indicate they are not performing properly. The commenter also recommended that §63.4568(a)(7) should be revised to state that a deviation caused by a monitor malfunction is not a violation.

One commenter (IV-D-09) stated that §63.4563(c)(2) should be revised to allow a facility to estimate capture or destruction efficiency during deviations, based on design data or test data.

According to the commenter, deviations that are due to missing operating parameter data or a malfunctioning monitoring device should not be treated as zero emission reduction.

Response: If a source has manually collected parameter data indicating that an emission capture system or control device was operating normally during a parameter monitoring system malfunction, these data could be used to support and document that the source was achieving the same overall control efficiency and the source would not have to assume zero-percent efficiency.

If a source has data indicating the actual performance of an add-on emission capture system and control device (e.g., percent capture measured at a reduced flow rates or percent destruction efficiency measured at reduced thermal oxidizer temperatures) during a deviation from operating limits or during a malfunction of the monitoring system, then the source may use the actual performance in determining compliance, provided the use of these data are approved by the Administrator (i.e., the EPA or delegated State agency). The final rule has been revised to clarify that such data may be used rather than assuming that the efficiency is zero. The final rule does not allow a source to otherwise estimate the efficiency of a capture system or control device during a deviation because this would provide no assurance of the quality of the data used in the compliance calculation.

The final rule does not include an assumption that the emission capture system and add-on control device are operating at their established efficiencies during periods when monitoring data are not available. Allowing a source to assume a constant efficiency in the absence of supporting monitoring data would allow a source to make an unsubstantiated claim of compliance.

The approach that was included in §63.3561(h) of the proposed metal can surface coating rule is not fundamentally different from what is included in the final plastic parts rule since it still assumes that the source is achieving zero-efficiency during a deviation. It is not clear it would reduce the recordkeeping burden associated with deviations and it would not allow a source to estimate actual efficiency during deviations. Therefore, this approach was not adopted in the final plastic parts rule.

Comment: One commenter (IV-D-06) requested that the rule state that a deviation resulting from monitoring data non-availability is not a violation and is not an indication that of capture system or add-on control system performance. The commenter (IV-D-06) noted that states that data recorded

during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities should not be used when calculating data averages.

The commenter (IV-D-06) also requested that the rule and preamble clarify that a deviation is not necessarily non-compliance. The definition of “deviation” includes two situations that are not necessarily violations:

- A deviation occurring during start-up, shutdown, or a malfunction (SSM) for which the SSM plan is followed, or
- A monitoring parameter straying from its range established during the initial compliance period. In this case, the commenter contended that operating parameters are only an indication of control device operation and help identify when action must be taken, but that non-compliance does not occur until the HAP emission limits are exceeded.

Finally, the commenter (IV-D-06) requested that the term “operating limits” should be changed to “operating conditions” throughout the rule because a deviation, although it should be reported, is not necessarily a violation of the emission limit. The commenter argued that exceeding an operating limit does not necessarily mean that the emission limit was exceeded. For example, a performance test rarely demonstrates the lower limit of performance, so operating parameters outside of the range used in the performance may in fact still achieve the required control efficiency. Deviations should not be considered to be violations of the standard, according to the commenter. The commenter argued that by turning an operating condition established during the performance test into an operating limit, EPA is, in effect, imposing a more stringent standard.

Response: We are using the term “deviation” to standardize the regulatory language used in NESHAP, and to avoid any confusion that might be caused by using multiple, related terms such as excess emission, exceedance, excursion, and deviation in the same regulatory program. The definition of deviation is consistent with the use of the term deviation in the Title V operating permit program. The definition of deviation clarifies that any failure to meet an emission limitation (including an operating limit or work practice standard) is a deviation, regardless of whether such a failure is specifically excused, or occurs at times when the emission limitation does not apply, for example, such as during startup, shutdown, and malfunction.

The commenter is correct that all deviations are not necessarily violations. The enforcement authority determines violations. All deviations from emission limitations (including operating limits and work practice standards) are required to be reported, regardless of whether or not they constitute violations, in accordance with the provisions in §63.4520, “What reports must I submit?” Operating limits and deviations from them are discussed in §63.4492(b).

#### 15.6 Compliance During Start-up, Shutdown, and Malfunction Periods

Comment: One commenter (IV-D-03) stated that EPA should not require reporting of every period of startup, shut down, and malfunction (SSM) as a deviation and should delete paragraph (3) of the definition of deviation. Paragraph (3) states that a deviation includes any instance when a source “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.” The commenter argued the following:

- The General Provisions already require facilities to report SSM periods so the requirement created by paragraph (3) is redundant.
- It is inconsistent with §503(b)(2) of the Clean Air Act, which requires facilities to report deviations from permit requirements. If the source is not required to comply with an emission limit during SSM periods, then it cannot be deviating from a permit requirement when it is operating according to the SSM plan.

Response: This paragraph has been retained in the final rule because EPA and other enforcement agencies need to confirm whether or not the deviation was actually during a SSM period and, if not, whether that deviation constitutes a violation. A report of a deviation that occurs during a SSM period is needed to perform this analysis of whether that deviation actually constitutes a violation.

Comment: One commenter (IV-D-06) objected to the requirement in §63.4563(h) for a source to demonstrate that the SSM plan was followed to the satisfaction of the Administrator. According to the commenter, this language implies that such a demonstration must be made without a request from the Administrator and that the criteria of “the satisfaction of the Administrator” is too

vague and discretionary to be the basis of a violation. The commenter suggested that the final rule should state that such a demonstration only has to be made upon the request of the Administrator.

Response: Section 63.4563(h) has been deleted from the final rule since SSM plans are not approved by EPA or permitting authorities. Therefore, compliance with a SSM plan is not an assurance that a facility has taken all steps necessary to minimize emissions consistent with good air pollution control practices, as required by §63.6(e) of the General Provisions. The EPA or permitting authority must still evaluate the actions taken during a SSM period and relevant emissions data to determine if a source was in compliance and it is not presumed that a source is in compliance if the SSM plan was followed.

Section 63.4520(c) of the final rule requires you to submit a semiannual startup, shutdown, and malfunction report documenting that you followed the procedures in your plan, or if the plan was not followed, documenting what actions were taken. (An immediate report is also required if you do not follow your plan.) A separate semiannual startup, shutdown, and malfunction report is not required if you include the information in your semiannual compliance report. Hence, you can include an explanation of actions taken to minimize HAP emissions during any startup, shutdown or malfunction occurring during the semiannual reporting period. The report is submitted to your delegated State agency, who will determine if a deviation constitutes a violation. Malfunctions which are addressed by following the SSM plan would likely not be considered a violation of the standard.

Comment: One commenter (IV-D-15) objected to the fact that the definition of deviation specifically includes SSM periods even though they are already exempted from compliance under the rule. The commenter noted that facilities must already report deviations under their monitoring reporting requirements and SSM activities under SSM reporting requirements. The commenter claimed that this policy is inconsistent with past rules and is inconsistent with Part 63 General Provisions for SSM periods. The commenter requested that the rule be revised so that operations in accordance with the SSM plan should not be considered deviations from the rule and should not be reported as such.

Response: We are using the term deviation to standardize the regulatory language used in NESHAP and to avoid any confusion that might be caused by using multiple, related terms such as excess emissions, exceedance, excursion, and deviation in the same regulatory program. The definition

of deviation is consistent with the use of the term deviation in the Title V operating permit program. The definition of deviation clarifies that any failure to meet an emission limitation (including an operating limit or work practice standard) is a deviation, regardless of whether such a failure is specifically excused, or occurs at times when the emission limitation does not apply, for example, such as during startup, shutdown, and malfunction. All deviations, therefore, are not necessarily violations. The enforcement authority determines violations. All deviations from emission limitations (including operating limits and work practice standards) are required to be reported, regardless of whether or not they constitute violations.

#### 15.7 Miscellaneous Comments on Add-On Control Device Provisions

Comment: One commenter (IV-D-03) requested that sources in the automobile and light duty truck industry be allowed to substitute the “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light Duty Truck Topcoat Operations,” EPA-450/3-88-018, for many of the proposed monitoring, recordkeeping, and reporting requirements for sources with add-on controls. The commenter provided several reasons to allow the alternative protocol.

- Sources, State agencies, and EPA are already familiar with these provisions and they have been included in new source and State operating permits.
- The protocols address most of the monitoring contained in the proposed plastic parts rule, including capture and transfer efficiency.
- At some facilities, the automobile and plastic parts surface coating operations are controlled by the same equipment, so it does not make sense to impose two separate sets of requirements on the equipment.
- The commenter provided a table comparing the similarities and differences between the protocol to the proposed plastic parts MRR requirements.

Response: The final rule simplifies compliance for plastic parts surface coating operations that are collocated with automobile and light duty truck manufacturing and surface coating operations. If you perform surface coating of plastic parts or products that meet the applicability criteria for both the Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII (under development))

and the Plastic Parts and Products NESHAP, then you may comply with the requirements of the Automobiles and Light-Duty Trucks NESHAP for the surface coating of all your plastic parts used in automobile or light-duty truck manufacturing in lieu of complying with each subpart separately. Since this change has been made, it is not necessary to allow these sources to substitute the “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light Duty Truck Topcoat Operations” for the monitoring, recordkeeping, and reporting requirements in this rule.

Comment: One commenter (IV-D-16) recommended that sources using add-on controls (other than thermal oxidizers) be required to speciate recovered HAP to better estimate HAP removal efficiency and the HAP-to-solids ratio. The commenter noted that many add-on controls (e.g., catalytic incinerators, adsorbers, and vapor concentrators) remove some organic compounds more efficiently than others, so the ratio of recovered to employed VOC should not be automatically used as HAP efficiency for demonstrating compliance.

Response: Adsorbers and vapor concentrators are generally used in conjunction with a thermal oxidizer of some type to destroy the HAP and VOC that are collected. The performance testing requirements in the rule requires that emissions must be measured from both the thermal oxidizer and the adsorber or concentrator, in these cases, if emissions are from separate stacks. Therefore, these tests will determine overall destruction and removal efficiency regardless of the species present.

Those facilities using an adsorber or concentrator as a solvent recovery device are more likely to use a limited number of different solvents with fewer HAP species than facilities using other types of add-on controls or relying on reformulated coatings to comply. Therefore, overall volatile collection efficiency with a solvent recovery device should be a reliable indicator of collection efficiency for total HAP and each specific HAP. Speciating the recovered HAP would not result in any added environmental benefit or increased assurance of compliance.

Comment: One commenter (IV-D-03) stated that section 63.4563(c) should be clarified that continuous compliance with the operating limits is only required “when the coating line is in operation,” by adding this phrase to the end of that sentence. The commenter also requested that sections 63.4568(f) and (g) be revised to replace the requirements for “daily” checks with checks during each

“operating day” so that holidays, weekends, or other planned shutdown periods are excluded from these checks.

Response: The provisions of the plastic parts rule do not apply when plastic parts and products surface coating operations are not being performed. Therefore, it is not necessary to revise the regulatory language as suggested by the commenter.

## 16.0 DEFINITIONS

Comment: Regarding reactive adhesives, one commenter (IV-D-07) requests that the definition of “organic HAP content” be clarified. This definition could be interpreted to require sources to estimate HAP content based the formulations as received, even though, when using reactive adhesives, essentially no HAPs are emitted. The commenter provides suggested revisions to this definition. To avoid expensive testing, the commenter requested that sources be allowed to use Method 24 results from the adhesive manufacturer. Otherwise sources would be discouraged from using multi-component systems which emit less than nonreactive adhesives.

Response: In the final rule we have clarified the definition of “organic HAP content” by adding the following sentence: “For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP emitted, rather than the organic HAP content of the coating as it is received.” An alternative method for determining the fraction of HAP emitted from reactive adhesives has been included in Appendix A to the final rule. Sources using reactive adhesives may use this method for demonstrating compliance based on the organic HAP actually emitted, rather than using Method 311, Method 24, or composition data. The method relies on preparing a sample (of known weight) of the adhesive as it will be applied, allowing it to fully cure, baking the sample, and then weighing the cured adhesive to determine the weight loss. The weight loss represents the volatile fraction that is emitted from the adhesive.

## 17.0 IMPLEMENTATION

Comment: One commenter (IV-D-03) stated that EPA should delegate all enforcement of the rule to the states rather than reserving approval of alternatives to work practice standards, and major alternatives to test methods, monitoring, record keeping and reporting. The commenter argues that if a State is capable of handling a delegated program, then the entire rule should be delegated and piecemeal delegation is confusing and adds to complexity. In addition, determining what constitutes a “major” alternative could lead to confusion. The commenter suggested that if EPA disagrees with this suggestion, EPA should delegate MRR and work practices to states and reserve only the authority to approve major alternatives to test methods.

Response: The EPA typically delegates the administration of this and other MACT standards to State, local, or tribal agencies. With that delegation, these agencies may administer the program in a manner that is flexible and workable yet no less stringent than prescribed by Federal standards. These agencies would then have primacy in most aspects of the NESHAP implementation process. The final rule indicates authorities retained by the U.S. EPA (in §63.4580), including approval of major alternatives to work practice standards, test methods, monitoring, and recordkeeping and reporting requirements.

The NESHAP program is meant to set consistent national HAP emission standards, and EPA retains authority to approve major alternatives in order to ensure that the standards are implemented consistently and that state, local and tribal programs are at least as stringent as the NESHAP. For this reason, EPA retains authority to approve any alternatives to the applicability of the rule in §§63.4481 through 63.4483 and the emission limitations in §§63.4490 through 63.4493. Emission limitations include the numerical emission limits as well as operating limits and work practice standards. Approval

of alternatives to these sections could affect the basic stringency of the standards and set a national precedent, so it is not appropriate to delegate this authority.

It is EPA policy to retain authority to approve major alternatives to test methods, monitoring, recordkeeping, and reporting. For definitions of major alternatives, the delegation section of the final Plastic Parts and Products NESHAP refers to the NESHAP general provisions (§§63.7(e), 63.7(f), 63.8(f), and 63.10(f) of 40 CFR 63 subpart A) and to §63.90 of subpart E - Approval of State Programs and Delegation of Federal Authorities. Definitions of “major change to monitoring”, “major change to recordkeeping/reporting”, and “major change to test method” are contained in §63.90. Major changes to monitoring and test methods are defined to mean a modification to a Federally enforceable monitoring requirement or test method that uses unproven technology or procedures (not generally accepted by the scientific community) or an entirely new method. Several examples are given in the definitions. Major changes to test methods or monitoring requirements often set a national precedent. As such, it is appropriate for EPA to retain approval of these changes and not delegate this authority. Similarly, §63.90 defines major changes to reporting/recordkeeping to include modifications that may decrease the stringency of the required compliance and enforcement measures, may have national significance (e.g. might affect implementation of the applicable regulation for other affected sources, might set a national precedent), or is not site-specific. Again, it is appropriate for EPA to retain authority to approve alternatives that may have national significance in the implementation and enforcement of this NESHAP. Section 63.90 also defines intermediate changes and minor changes. The reader is referred to the cited sections of 40 CFR part 63, subparts A and E to gain an understanding of what constitutes a major change for which authority is retained by EPA and what constitutes a minor or intermediate change that may be approved by the delegated state, local, or tribal agency.

Comment: One commenter (IV-D-18) stated that the rule should state that the use of alternative capture efficiency protocols requires approval and to state whether the approval authority can be delegated to the states. The commenter believes the rule is vague on whether this option requires the approval of the permitting authority. The commenter (IV-D-18) also stated that to be consistent with existing EPA policy, this rule should state that the approval of alternative methods for

determining mass fraction of organic HAP and solids content of coatings, in §§63.4541(a)(3) and (b)(2), cannot be delegated to the states.

Response: Section 63.4566(e) of the final rule states that alternative capture efficiency protocols are subject to the approval of the Administrator. Sections 63.4541(a)(3) and (b)(2) also state that approval of the Administrator is required and refer to §63.7(f) for procedures to submit an alternative test method for approval. The EPA typically delegates the administration of most aspects of this and other NESHAP to State, local, or tribal agencies. The final rule indicates authorities retained by the U.S. EPA (in §§63.4580), including approval of major alternatives to test methods. See the response to the previous comment for a discussion of which aspects of the rule can be delegated to State, local, or tribal agencies and which are retained by EPA.

Comment: One commenter (IV-D-15) stated that the rule should state that control technologies installed to comply with the rule will be exempt from New Source Review (NSR) because the equipment is installed to reduce emissions.

Response: We are not including in the final rule an exemption from NSR for control technologies installed to comply with this rule. It would be inappropriate to include language in this NESHAP that could affect the applicability of NSR since this is better handled on a case-by-case basis by the States and Regions implementing the NSR program. However, we do not expect compliance with this rule to require changes that could trigger applicability under NSR. The only possible exceptions could be those few facilities that install combustion devices that may lead to an increase in NOx emissions and these should be eligible for the pollution control project exclusion in the NSR regulations. (See 67 FR 80186, December 31, 2002 for the most recent NSR regulation amendments which address pollution control projects.)

Comment: One commenter (IV-D-03) suggested that the term “deviation” should be changed to “excursion” to be consistent with State programs and notes that some State programs treat any deviation as a *per se* violation subject to a penalty. The commenter recommended that the definition of excursion in 40 CFR §64.1 be adopted:

“a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.”

The commenter (IV-D-03) suggested that if EPA chooses to keep the term deviation, several clarifying changes should be made to the definition:

- The definition should include an explicit statement that the definition is intended to define what constitutes a “deviation from permit requirements” for purposes of Title V and that meeting the obligation to report deviations under this definition is sufficient to meet the obligation to report deviations under Title V.
- EPA should clarify that a deviation is not necessarily a violation, consistent with 40 CFR 71.6(a)(3)(iii)(C).
- EPA should clarify that operations outside the indicator monitoring ranges are not deviations provided the source meets the requirements to investigate and take corrective action. This is implied by paragraph (2) of the definition of deviation, but it should be revised as follows:

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

Response: We are using the term “deviation” to standardize the regulatory language used in NESHAP, and to avoid any confusion that might be caused by using multiple, related terms such as excess emission, exceedance, excursion, and deviation in the same regulatory program. The definition of deviation is consistent with the use of the term deviation in the Title V operating permit program. The definition of deviation clarifies that any failure to meet an emission limitation (including an operating limit or work practice standard) is a deviation, regardless of whether such a failure is specifically excused, or occurs at times when the emission limitation does not apply, for example, such as during startup, shutdown, and malfunction. All deviations, therefore, are not necessarily violations. The enforcement authority determines violations. All deviations from emission limitations (including operating limits and work practice standards) are required to be reported, regardless of whether or not they constitute violations, in accordance with the provisions in §63.4520, “What reports must I submit?” Operating limits and deviations from them are discussed in §63.4492(b).

## 18.0 CLARIFICATIONS

Comment: One commenter (IV-D-03) stated that the headings for §§63.4567(c) and 63.4568(d) should be revised to “Regenerative carbon adsorbers” to clarify that these do not apply to non-regenerative carbon adsorbers. A similar change should be made in Table 1, item 3.

Response: In the final rule, these changes have been made so that it is clear that the monitoring requirements described apply to regenerative carbon adsorbers. The plastic parts database does not include any major sources with non-regenerative carbon adsorbers. In the unlikely event that a major source chooses to use a non-regenerative carbon adsorber, they could apply to the EPA for approval of alternative monitoring under §63.8(f) of the General Provisions.

Comment: The commenter (IV-D-06) requested that the defined term “coating operation” instead of the undefined “surface coating” be used throughout §63.4481(c) when referring to activities subject to this rule. For consistency and clarity, “surface coating” could be used in referring to other NESHAPs.

Response: The first sentence in §63.4481(c) has been revised to refer to either surface coating or a coating operation. In some cases, a surface coating activity that is not an entire coating operation (as defined) may be excluded. Section 63.4481(c) of the final rule contains a list of specific coating activities and operations that are excluded from the Plastic Parts and Products NESHAP, and we have revised the wording of the list as appropriate to be sure the intent of each exclusion is clear.

Comment: One commenter (IV-D-06) suggested language to correct the first sentence of §63.4561(n), which is incomplete as written.

Response: In the final rule, this sentence has been corrected as follows: “The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in §63.4490 unless you are

demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c).”

Comment: One commenter (IV-D-06) requested the deletion of “etc.” at the end of §63.4481(a)(1) because it is vague and confusing. The commenter also suggested that this sentence indicate more clearly that associated activities such as surface preparation are subject to the rule only when surface coating takes place.

Response: In the final rule, this section has been clarified. Associated activities such as surface preparation, cleaning, mixing, and storage “do not comprise surface coating if they are not directly related to the application of the coating.”

Comment: One commenter (IV-D-20) requested that the exemption language in §63.4481(c) be revised to say “meet *any of* the criteria of paragraphs (c)(1) through (12) of this section.” The commenter believes the rule did not intend that a source would have to meet all of the criteria in order to be exempt from the rule.

Response: This correction has been included in the final rule.

## 19.0 GENERAL COMMENTS

Comment: Two commenters (IV-D-13, IV-D-24) claimed that if the emission limits for plastic coating operations are more stringent than those for metal coating operations, it could create a disincentive to use plastic parts where plastic and metal parts are interchangeable. (The commenter also noted that the opposite would be true if the metal limits were more stringent.) The commenters suggested that customers could prefer metal parts over plastic parts because it would be easier and less costly to paint or bond them and this could lead to an unfair market imbalance between plastic and metal parts producers based solely on the MACT requirements. One commenter (IV-D-13) reported that they were preparing an analysis of the potential for market imbalances and would provide it to EPA when it is completed.

Response: As of the promulgation date of the final plastic parts rule, the EPA had not received the analysis of market imbalances mentioned by commenter (IV-D-13). When converted to the same units of measure as the plastic parts rule, the general use emission limits for metal parts (2.6 lb HAP/gal solids) is approximately 0.21 lb HAP/lb solids, which is not greatly different from the plastic parts general use limit of 0.16 lb HAP/lb solids. Both rules have higher limits for several subcategories to allow for specialty coating operations that could not meet these emission limits. The final rule also offers increased compliance flexibility, including the predominant activity and facility-specific emission limit alternatives. The range of compliance options in the final rule will allow facilities to comply in the most cost-effective manner. The economic impact analyses for the plastic parts rule and the metal parts rule predicted minimal economic impacts on individual facilities in both source categories. The selection of a material (plastic or metal) for a particular product depends on many variables unrelated to the coating materials used, such as the cost of the metal or plastic raw materials and performance specifications for the part's intended use. Given the expected minimal economic impact of the plastic parts rule, the

compliance flexibility incorporated in the final rule, and the many other factors that influence selection of plastic or metal substrate for a given part, it is unlikely that the relative stringency of the limits in the plastic parts and metal parts rules will have a significant effect on the market demand for plastic or metal products.

Comment: The commenter (IV-D-03) argues that unless the TPO limits are revised, EPA must revise the cost estimates since the cost estimates are based on reformulating solvent-borne coatings, whereas existing sources would need to switch to either waterborne coating systems or use add-on controls, which EPA acknowledges have higher costs. The commenter disagrees with the EPA's conclusion that the average price increase in plastic parts and products is less than 0.1 percent, because of the need to use waterborne coatings or add-on controls. The commenter, provided total cost estimates for one of its facilities to install add-on controls, but did not provide any basis for the cost estimate.

Response: The TPO emission limits for existing and new sources in the final rule are somewhat higher than the proposed emission limits. Additional emission data for TPO facilities submitted during the public comment period were incorporated into the plastic parts surface coating database, and the MACT floor was recalculated incorporating the new data as described in chapter 3 of this document. The TPO emission limits were set at the MACT floor. In setting emission limits at the MACT floor, EPA cannot consider cost because this is the minimum stringency allowed by the CAA. The final rule also includes several compliance provisions that provide increased flexibility to affected sources and minimize compliance costs of the rule.

It is difficult to estimate the cost impacts of the rule, and the cost impacts presented at proposal are estimated averages that apply to a broad spectrum of facilities. The costs are based on use of reformulated lower-HAP or non-HAP coating and cleaning materials. As described in the Technical Support Document for the proposed rule, the cost analysis included capital costs for replacing coating application equipment to accommodate the use of water-borne coatings. However, because the estimated costs are an average, it is expected that costs will be higher than estimated for some facilities and lower than estimated for others.

The commenters did not provide detailed data that supported the cost estimate provided in their comment letter or information to show that the cited costs would apply to all TPO coating facilities. Given that the emission limits are equivalent to the MACT floor and it is not clear how the commenter's cost information was developed or could be applied to other facilities, no changes have been made to the cost impacts since proposal.

Comment: The commenter (IV-D-08) supported the comments of the Air Transport Association and Boeing (IV-D-10 and IV-D-20).

Response: We note the commenter's support for these comments. See other chapters of this document for summaries of specific comments made by commenters IV-D-10 and IV-D-20 and our responses to these comments.

Comment: The commenter (IV-D-09) requested that responses to these comments be put into the preamble to the final rule to provide guidance to industry and State/local air agencies.

Response: The responses to significant comments, especially those that result in a change in the rule, will be published in the preamble to the final rule. A summary of all comments and responses to all comments are included in this document, which can be readily accessed and used as guidance in interpreting, complying with, and enforcing this rule.

Comment: One commenter (IV-D-15) stated the EPA underestimated the compliance costs, and that the rule will impose economic impacts on the plastic parts and products surface coating industry and the surface coating manufacturers. According to the commenter, the costs to the manufacturers for reformulation and testing as well as potential difficulties applying the new coatings will result in "severe" costs. The commenter did not provide cost data.

Response: At proposal, EPA estimated the costs to comply with the rule by using reformulated coatings, thinners, and cleaning materials. As explained in the technical support document, the cost estimates included the cost differential for purchasing lower-HAP coating materials and capital costs to switch to coating application equipment that may be needed if facilities choose to use waterborne coating materials. Many plastic parts coating operations are already using, and many suppliers are already offering low-HAP and non-HAP coating formulations and cleaning solvents. So, it is likely that many operations could switch to an already available coating solvent that has been demonstrated in a

similar application without incurring high reformulation or testing costs. Other facilities with more specialized coating requirements may have higher costs for reformulation and testing. The estimated costs represent average costs that apply to a wide range of facilities. It is expected that some facilities would experience higher costs and others would experience lower costs than estimated.

As described in the preambles to the proposed and final rules, EPA conducted an economic analysis to determine whether the compliance costs (including use of reformulated coating materials and monitoring, recordkeeping, and reporting costs) would have a significant economic impact. The analysis showed that the expected price increase for affected plastic parts and products would be less than 0.1 percent as a result of the standards. Therefore, we do not expect adverse impacts to occur for the industries that produce or consume plastic parts and products. The analysis also estimated that the regulatory costs represent only 0.25 percent of the value of coating services, which should not cause producers to cease or alter their coating operations. Hence, no firms or facilities should be at risk of closure because of the standards.

The commenter has not provided any specific data, information, or analyses to show that EPA's estimates of costs or economic impacts are not accurate or to suggest specific revisions to the cost estimates. Therefore, we have not changed the cost estimate between proposal and promulgation, and we believe the economic impact assessment to be valid.

Comment: To assist the regulated community, the commenter (IV-D-16) requested that the rule include a list of organic HAPs similar to the VOHAP list in Table 2 of 40 CFR 63 subpart JJ.

Response: While the rule does not specifically list organic HAP, there is a complete list of HAP in section 112 of the CAA. This rule regulates those HAP on the list which are organic compounds, a commonly understood chemistry term. Basically, organic compounds are compounds which contain carbon. The great majority of coatings used in plastic parts and products contain only organic HAP and no inorganic HAP, so in most cases, all of the HAP contained in the coatings would be counted in determining organic HAP content, as long as they are present at levels above 0.1 percent for HAP that are OSHA-defined carcinogens or above 1.0 percent for any other individual HAP. Manufacturers' specifications, such as MSDS, should list the organic HAP contained in coatings purchased by affected sources. The final rule compliance determination sections specify how to determine organic HAP

content using test methods or manufacturers' formulation data. One area of confusion has been the organic HAP August 21, 2003 content of solvent blends, where manufacturers' information may not list the individual organic HAP. The final rule includes tables with default organic HAP contents of commonly used solvent blends.

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