



National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Furniture

**Summary of Public Comments and Responses
on Proposed Rule**

EPA-453/R-03-002
January 2003

**National Emission Standards for
Hazardous Air Pollutants (NESHAP):
Surface Coating of Metal Furniture**

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

DISCLAIMER

This report has been reviewed by the U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Emission Standards Division and approved for publication. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Table of Contents

1.0 SUMMARY	1-1
1.1 BACKGROUND	1-1
1.2 SIGNIFICANT CHANGES SINCE PROPOSAL	1-1
2.0 SUMMARY OF PUBLIC COMMENTS AND RESPONSES	2-1
2.1 APPLICABILITY	2-1
2.1.1 Overlap with Other NESHAP	2-1
2.2.2 Affected Source	2-10
2.2.3 Low Usage Exemption	2-12
2.2.4 Other Exemptions	2-13
2.2.5 Definitions	2-18
2.3 MACT FLOORS	2-19
2.3.1 Basis of the MACT Floors	2-19
2.3.2 Alternatives More Stringent Than the MACT Floors	2-26
2.4 EMISSION LIMITS	2-31
2.4.1 Compliance Options	2-31
2.4.2 Work Practice Standards	2-35
2.5 COMPLIANCE DETERMINATIONS	2-36
2.5.1 Support for the Proposal	2-36
2.5.2 Compliance During Periods of Startup, Shutdown, and Malfunction	2-37
2.5.3 Compliance Period	2-38
2.5.4 Monitoring	2-39
2.5.5 Miscellaneous Comments	2-39
2.6 NOTIFICATION, RECORDKEEPING, AND REPORTING	2-43
2.6.1 Initial Notification	2-43
2.6.2 Consolidation and Timing of Reports	2-45
2.6.3 Semiannual Reports	2-47
2.6.4 Reporting of Deviations	2-49
2.7 MISCELLANEOUS COMMENTS	2-50

1.0 SUMMARY

1.1 BACKGROUND

On April 24, 2002 (67 FR 20206), the EPA proposed the “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture” (40 CFR part 63, subpart RRRR) under section 112(d) of the Clean Air Act (CAA). Public comments were requested on the proposed rule, and comment letters were received from industry representatives, industry trade groups, and Federal and State agencies. A total of nine comment letters was received. Table 1-1 presents a listing of all persons who submitted written comments, their affiliation, and air docket number and item number for their comment letter. A public hearing was not requested.

The written comments that were submitted on the proposed rule have been summarized, and responses to the comments are included in the following chapter. This summary of comments and responses serves as the basis for revisions made to the rule between proposal and promulgation.

1.2 SIGNIFICANT CHANGES SINCE PROPOSAL

In response to comments received on the proposed standards, we made a number of changes to the final rule. Many of these changes are clarifications designed to make our intentions clearer. However, some of the changes affect the requirements specified in the proposed rule. This section summarizes these more significant changes to the proposed rule.

TABLE 1-1. LIST OF COMMENTERS ON THE PROPOSED NATIONAL EMISSION STANDARDS FOR SURFACE COATING OF METAL FURNITURE

Docket A-97-40 Item Number	Commenter and Affiliation	Date of Document
IV-D-1	American Furniture Manufacturer's Association (AFMA), Comments of American Furniture Manufacturer's Association on Proposed MACT for Surface Coating of Metal Furniture	6-17-02
IV-D-2	Business and Institutional Furniture Manufacturer's Association (BIFMA), Comments on the proposed National Emission Standard for Hazardous Air Pollutants for Surface Coating of Metal Furniture (67 Fed. Reg. 20206, April 24, 2002)	6-20-02
IV-D-3	Department of the Navy, Department of Defense Comments on the NESHAP for Metal Furniture Surface Coating Operations, Proposed Rule, 67 Fed. Reg. 20206 (Apr. 24, 2002)	6-21-02
IV-D-4	The Boeing Company, Re: National Emission Standard for Hazardous Air Pollutants: Surface Coating of Metal Furniture - Proposed Rule	6-24-02
IV-D-5	The Earthjustice Legal Defense Fund, Comment on Docket No. A- 97-40: Surface Coating of Metal Furniture	6-24-02
IV-D-6	Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Comments on Proposed Rule - 40 CFR 63, Subpart RRRR	6-24-02
IV-D-7	The Institute of Clean Air Companies (ICAC), ICAC Comment on Docket No. A-97-40	6-24-02
IV-D-8	Lozier Corp., RE: Comments to the Proposed NESHAP: Surface Coating of Metal Furniture	6-24-02
IV-D-9	The National Paint and Coatings Association, RE: National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture; Proposed Rule	6-24-02

New and Existing Source Emission Limits

We received comments on the procedure we used to calculate both the new source and existing source maximum achievable control technology (MACT) floors. In response to these comments, we reevaluated the procedure we previously used and determined that a different procedure was more appropriate, resulting in new MACT floor values. Consequently, we revised the new and existing source emission limits in §63.4890 of the proposed rule. The new source emission limit was changed from 0.094 kilogram organic HAP per liter of coating solids used to no organic HAP emissions. The emission limit was based on several coating technologies that contain no organic HAP that we now believe represent in the aggregate the MACT floor for new sources. For existing sources, the emission limit was changed from 0.12 to 0.10 kilogram organic HAP per liter coating solids used. This value reflects the revised MACT floor calculated using the average of the best performing 12 percent of 22 sources rather than 49 sources.

We recognized that a small number of new sources many have particular metal furniture components that cannot be coated with any of the organic HAP-free coating technologies due to specialized appearance or functional characteristics. For these cases, we added a procedure at §63.4890(a)(1) to allow the source to request an alternative emission limit. If we grant such a request, the alternative limit would be 0.094 kilogram organic HAP per liter coating solids used, which is the new source emission limit we originally proposed.

Military Coatings

Metal furniture (among other coated products) used by the military in battlefield situations or that are integral to military war-fighting equipment will be covered under a new source category. Although the comments we received requested that such metal furniture be covered under the upcoming miscellaneous metal parts and products surface coating NESHAP, we believe the more appropriate approach is to group all of the products coated with the specialized military coatings into their own source category. In this way, we can more effectively address the concerns unique to these coatings.

Compliance During Periods of Startup, Shutdown, and Malfunction

We received a comment concerning whether the provision in §63.4900(a)(2) of the proposed rule complied with the CAA. This paragraph stated that affected sources do not have to comply with the emission limitations during periods of startup, shutdown, and malfunction. This provision is often found in NESHAP in which compliance with the standards is based solely on the results of a short-term initial performance test and short-term averaging of continuous monitoring results thereafter. In consideration of this comment, we realized that this provision is not appropriate for the surface coating NESHAP when these short-term tests and monitoring results are only one component of a compliance determination that determines emissions over a long period of time, which in this case is a month. In the final rule, we revised and simplified the general compliance requirements in §63.4900. As part of these revisions, we removed the statement that sources must be in compliance except during periods of startup, shutdown, and malfunction. In its place, we stated in §63.4900(a) of the final rule that all affected sources must be in compliance with the emission limitations in §63.4890 at all times. We left in place the requirement for sources using an emission capture system and add-on control device to develop and implement a written startup, shutdown, and malfunction plan according to §63.6(e)(3). Additionally, in order to be consistent with this change as finalized in §63.4900(a), paragraph (h) of proposed §63.4963 (renumbered as §63.4962 in the final rule) was not included in the final rule.

Calculation for Volume Fraction of Coating Solids

There may be limited circumstances where the volume fraction of coating solids cannot be determined using the specified test methods or manufacturer's data. To account for these situations, we added a procedure at §63.4941(b)(3) to calculate this value.

Monitoring

The proposed rule contained detail monitoring provision in §63.4968 (which has been renumbered as §63.4967 in the final rule). These provisions used both “sensitivity” and “tolerance” to describe a monitoring device's minimum ability to discriminate between input signals. Comments were received stating that this was an inappropriate use of the term “tolerance.” To correct this terminology usage, we replaced both terms with the single term “accuracy” and revised the monitoring provisions of this section accordingly.

Title V Operating Permits

Several commenters had concerns about possible conflicts between reporting requirements under this rule and their approved title V programs. It is important to emphasize that a permitting authority does not have the authority to change the reporting requirements of this rule (such as type of report, content of report, and/or frequency of submission). Reporting requirements under this rule are applicable requirements and sources must comply with them.

The final rule, consistent with the proposed rule, does however allow 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. See §63.4920(a)(1)(iv) and (a)(2) of the final rule. As a result of comments, these two sections have been modified in the final rule to clarify when monitoring reports are required by part 70 or part 71 (every 6 months) and when a 6-month monitoring report must cross-reference a semiannual compliance report. Language was also added to §63.4920(a)(1)(iv) of the final rule to ensure that a semiannual compliance report is submitted within a reasonable time (30 days) after the end of the semiannual reporting period.

At the request of commenters, §§63.4910(c)(2) and 63.4920(a)(3)(ii) of the final rule have been revised to ensure that certifications of truth, accuracy, and completeness for the notifications of compliance status and semiannual compliance reports under this rule are consistent with the certification requirements under 40 CFR part 70 or part 71. These modifications will ensure that these reports will meet the certification requirements for reports submitted under part 70 or part 71.

Compliance Under Multiple Sets of Representative Operating Conditions

Section 63.4962 of the proposed rule contained procedures for determining compliance when a source operates under different sets of representative operating conditions. Upon further review of this section, we believe this option is overly complicated and would be difficult to implement in actual practice. Rather than including these detailed compliance procedures in the final rule, we decided to replace them with a general statement allowing such a compliance demonstration if you believe a workable and enforceable procedure can be maintained to demonstrate compliance under different sets of representative operating conditions (see §63.4891(d)(2) of the final rule).

2.0 SUMMARY OF PUBLIC COMMENTS AND RESPONSES

In the comment summaries and responses contained in the following sections, any resulting additional rule language is represented by underlining. Any rule text that has been removed is represented in strikeout font (i.e., ~~strikeout~~).

2.1 APPLICABILITY

2.1.1 Overlap with Other NESHAP

Comment: One commenter (IV-D-1) expressed appreciation for EPA's inclusion of §63.4881(c)(2), which states that the rule does not apply to surface coating of metal components of wood furniture conducted in an operation that is subject to the wood furniture NESHAP (40 CFR 63, subpart JJ). The commenter added that this exemption is crucial to companies which manufacture wood furniture with metal components, because many of them use the same finishing lines to surface coat metal parts associated with wood furniture. Without the exemption, these facilities would have to comply with both the wood furniture rule and the metal furniture rule on the same finishing lines. The commenter strongly advocated that the exemption be retained and included in the final MACT standard.

Response: We have retained this exemption in the final rule.

Comment: Two commenters (IV-D-2 and 9) expressed concern with the applicability of the rule as described in the preamble to the proposed rule. The definition of affected source in the preamble is very broad in that it could include some wood furniture operations in which the operation coats both wood and metal parts. The preamble goes on to state that "where a manufacturer of wood furniture also coats metal components of that wood furniture," then "the coating of those metal components would be subject to subpart JJ" (that is, the wood furniture NESHAP). The preamble also states that the future surface coating NESHAPs for miscellaneous metal parts and plastic parts will apply if such coating operations are performed in facilities that do not apply coatings to metal furniture.

The commenter noted that much more complicated scenarios are possible. “Stationary sources” within the industry operate major complexes where both metal furniture and wood furniture operations are collocated. In fact, there are even some operations which may sometimes run wood furniture and other times run metal furniture. Additional clarification is needed as to which standard would apply to such coating operations. Alternatively, the commenter suggested that EPA should consider allowing sources to declare which standard applies and be allowed to “opt-in” or “opt-out” of any given NESHAP depending on the characteristics of the products being manufactured. One commenter (IV-D-9) added that simply exempting metal components of wood furniture, as EPA does under §63.4881(c)(2) of the proposed rule, does not take into account the myriad of other possible scenarios with the overlap of the surface coating MACTs. Sources should be given the option of applying one set of standards to the entire facility depending on the characteristics of the products being manufactured.

One commenter (IV-D-8) was concerned that the definition of metal furniture in the proposed rule, specifically the phrase "constructed . . . partially from metal" is not defined and is not clear. No criteria for determining, specifying, or even calculating whether furniture, which contains both wood and metal components, is classified as wood furniture or metal furniture is provided.

Further clarification is also needed to ensure that State and EPA Regional offices uniformly interpret the definition of metal furniture and the applicability of the metal furniture NESHAP. With manufacturing operations in several states, the commenter was concerned that the same manufacturing operation located in different manufacturing facilities would be subject to different regulations and requirements.

Response: During the development of the proposed rule, we recognized the potential for overlap between the metal furniture surface coating rule and other surface coating rules. We addressed this issue in the provisions for defining the source category in §63.4881 of the proposed rule. While we believe the language of this section adequately addressed most of the potential overlap problems, we realized that there may be other facility-specific situations that the proposed rule did not specifically address. Accordingly, we requested comments on this issue in the preamble to the proposed rule (see 67 FR 20208).

We recognized that there is not always a clear dividing line between the affected sources of the surface coating rules. This is evident in the furniture manufacturing industry, where both metal and wood furniture may be produced in the same facility, and many pieces of furniture contain substantial portions of metal and wood. For those commenters concerned with lack of clarity between the applicability of the metal furniture rule and other surface coating rules, in particular the wood furniture surface coating rule (40 CFR part 63, subpart JJ), we are providing clarification through the following examples.

Example 1. Coating operations at facilities currently subject to the wood furniture rule (40 CFR part 63, subpart JJ) would continue to be subject to that rule. This would be the case even if the items coated contained metal components, as long as the items meet the definition of “wood furniture” or “wood furniture component” in §63.801(a).

Example 2. Coating operations at facilities that coat metal furniture (as defined in §63.4881(a)(2) of the final rule) constructed either entirely or partially from metal (but not qualifying as wood furniture components under subpart JJ) would be subject to the metal furniture rule.

Example 3. Facilities that coat only metal furniture components such as knobs, hinges, and screws (that is, components that are of a more generic nature and could have broader uses in products other than metal furniture), and provide these components exclusively to metal furniture manufacturing facilities, would be subject to the metal furniture rule.

Example 4. The applicability of the surface coating rules when the item coated is composed of both metal and wood components in approximately equivalent percentages will depend primarily on the functionality of the entire unit. A common example of such an item is a commercial shelving unit constructed of a metal base and wood backing. For reasons related to structural stability and appearance, the functionality of this particular shelving unit depends more on the metal components than the wood components. The surface coating of this shelving unit would be regulated under the metal furniture rule. Thus, the surface coating of all components of this shelving unit would be regulated under the metal furniture rule, regardless of whether they are made of metal or wood, as long as the facility is a metal furniture manufacturing facility. This would be true even if the metal furniture manufacturing facility dedicated a coating line exclusively to the coating of the wood components. However, if the

wood components were coated at a facility that could not be classified as either a wood furniture or a metal furniture manufacturing facility, then the coating of the wood components would not be covered under either the wood furniture or metal furniture rule.

Example 5. Coating operations such as those presented in Example 5 may not involve items that can be readily classified according to functionality. For these situations, the applicability determination would be made on a case-by-case basis taking into account factors other than functionality. These factors may include as many relevant factors other than functionality as necessary, such as the primary North American Industrial Classification System (NAICS) code (or Standard Industrial Classification (SIC) code) for the facility, amount of surface area coated for each type of substrate, and how the coating operations have been classified for other surface coating rules (such as NSPS and State rules).

The examples we have provided here are necessarily simplistic in nature compared to many of the situations encountered in the metal furniture manufacturing industry and are intended only to provide guidance. Even so, the examples demonstrate the complex applicability issues related to this rule and why precisely defining applicability among the surface coating rules has proved to be a challenge. While we realize that many of the situations encountered in the metal furniture manufacturing industry can be far more complicated than presented here, discussion of these more complex situations is beyond the scope of this document. For these reasons, we intend to provide additional guidance documents in the future that will specifically address some of the more complex applicability issues. In order to address the specific concerns raised by the metal furniture industry, we are planning to involve all interested stakeholders in the development of these guidance documents.

We understand that it could be beneficial to consolidate regulatory requirements at facilities where coating operations belonging to different source categories (such as metal furniture, miscellaneous metal parts, and plastic parts) are collocated. Consolidation may reduce the amount of records, reports, or compliance calculations that the facility would have to maintain. Some commenters suggested that the final rule include a compliance option that would allow this consolidation of different regulatory requirements within a facility. Section 112(d)(2) of the CAA states that all major sources within a regulated source category must meet the maximum degree of emission reduction that we

determine to be achievable. We do not believe that the commenters' recommendation of allowing a facility to choose which coating operation to opt into, or out of, a particular NESHAP would ensure that the MACT level of control was met for all HAP emission points within each source category. Therefore, to comply with these CAA requirements, we have not included the compliance option suggested by the commenters in the final rule.

As an alternative to the commenters' recommendation, we explored the possibility of including a compliance option that would allow a facility with collocated surface coating operations (such as metal furniture, miscellaneous metal parts, and plastic parts) to comply with the requirements of the most stringent applicable NESHAP. Upon consideration, we found that implementing this option posed several complex issues that we could not resolve, and therefore we are not including this compliance option in the final rule.

To illustrate the most stringent compliance option, consider a metal furniture surface coating facility that also has collocated operations that are affected sources under the wood furniture surface coating NESHAP and the plastic parts and products surface coating NESHAP. The test to determine the most stringent rule would require you to determine the facility-wide emission rate by individually applying each applicable surface coating rule to all surface coating operations at the facility and choosing the rule that results in the lowest emission rate. In this example, you would calculate the facility-wide emission rate by applying the metal furniture emission limits to all surface coating operations at the facility. You would then repeat the calculation for the wood furniture rule emission limits, then repeat it again for the plastic parts and products emission limits. The rule that results in the lowest facility-wide emission rate is the one you must comply with under the most stringent rule option.

However, when considering how to implement this procedure, we encountered difficulties with a number of practical considerations. One area of concern is the differing scope of the affected source between the individual surface coating rules. Metal furniture surface coating facilities clean the metal substrate prior to coating application. Therefore, we included these cleaning operations in the metal furniture rule affected source. Wood furniture surface coating operations, however, do not have an analogous cleaning operation. The emission limits in the wood furniture rule (see §63.802) cover cleaning of application equipment and spray booths, but not the substrate being coated. Thus, when

performing the test for determining the most stringent rule and applying the wood furniture rule to metal furniture surface coating operations, the issue arises as to how HAP emissions from metal substrate cleaning operations should be counted. One way would be to disregard them completely since the wood furniture rule does not limit their HAP emissions. Another way would be to count all HAP emissions in the facility total since the operations are uncontrolled.

Another difficulty that arose in our analysis of the most stringent rule compliance option is how we would treat exemptions that are specific to one of the surface coating rules applicable to a facility. For example, the wood furniture rule allows an exemption from the emission limits for an “incidental wood furniture manufacturer” that uses less than 100 gallons per month of finishing materials or adhesives (see §63.800(a)). The possibility exists that a metal furniture surface coating facility could have collocated wood furniture surface coating operations that meet the definition of incidental wood furniture manufacturer. Such a facility could argue that they should be allowed to determine which of the two rules (metal furniture or wood furniture surface coating) is more stringent. A similar issue arises when a facility has only a small amount of their production (for example, less than 5 percent of their coating usage) covered under one of the multiple surface coating rules applicable to the facility. We have not yet determined in such cases whether it is appropriate to allow the lesser coating operations to dictate which rule should apply to the facility.

We also have had difficulty determining the appropriate basis on which to evaluate which rule is more strict. By “basis,” we mean the level of annual production or coating usage for products in each source category that you would use to determine the total annual emission rate under each applicable rule. Options we have considered include an average of the five years immediately prior to making the determination or a prediction over some set period of time in the future of what level of production the facility will achieve. We also considered whether the determination should be revised periodically, perhaps when the facility's title V permit is renewed.

Given the number and complexity of the issues involved with this compliance option, we concluded that we could not adequately resolve all of them and still promulgate the final rule in a timely manner. Therefore, we have decided not to include the most stringent rule compliance option in the final rule at this time. As we continue to develop other surface coating rules, we will attempt to resolve

the issues presented here, as well as others we have identified. In the future, if we find this compliance option to be in conformance with the requirements of the CAA and that it is workable and enforceable in practice, we will consider amending the final rule. Until such time, you are required to comply with each surface coating rule that is applicable to your facility.

Comment: Three commenters (IV-D-2, 6, and 9) were concerned that under the proposed Miscellaneous Organic Chemical Manufacturing (MOCM) NESHAP and the Miscellaneous Coating Manufacturing (MCM) NESHAP (see 67 FR 16154), it appears that certain ancillary operations at metal furniture surface coating facilities could be regulated by the MOCM/MCM rather than by the metal furniture NESHAP. In particular, as proposed, the MOCM/MCM could be interpreted as covering distribution of coatings inside of metal furniture surface coating facilities including the piping and pumps associated with the distribution of the coatings from the paint mix rooms to the paint booths, as well as mixing of coating raw materials to make a coating for use in-house by the metal furniture surface coating facility. The commenters recommended clarification that material distribution systems are not within the affected source of the metal furniture NESHAP.

Response: The proposed MOCM/MCM rule to which the commenters refer would regulate coating manufacturing operations and would require controls on the following emission sources in these operations: storage tanks, process (mixing) vessels, equipment components, wastewater treatment and conveyance systems, transfer operations, and ancillary sources such as heat exchange systems. Thus, if an operation is determined to be an affected source under the MOCM NESHAP or the MCM NESHAP, it would have to comply with the applicable requirements under those rules. However, the requirements of the future MOCM NESHAP and the MCM NESHAP will not apply to operations within the affected source of the metal furniture surface coating NESHAP.

In §63.4882 of the proposed rule, the affected source is described, in part, as “all storage containers and mixing vessels” and “all manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials.” It was our intent when developing this regulatory language that it be general enough that piping and pumps associated with the distribution of coatings (as well as thinners and cleaning materials) would be included in the affected source. However, based on

these comments, the proposed rule may have been too general and could lead to confusion. We modified §63.4882(b)(3) in the final rule as follows to clarify our intent:

(3) All manual and automated equipment and containers and all pumps and piping within the affected source used for conveying coatings, thinners, and cleaning materials;

In addition, we realized that our use of the term “mixing” in §63.4882(b)(2) of the proposed rule was not explicit enough for a source or permitting authority to determine whether the MCM NESHAP would apply to certain metal furniture operations. We believe that some metal furniture facilities may have operations that could be considered coating manufacturing. While not explicitly stated in the proposed rule, it was our intent to include such operations in the metal furniture NESHAP affected source, so long as the coating was manufactured solely for use within the metal furniture surface coating facility in which it was made. To clarify that such mixing operations, when they occur at a metal furniture surface coating facility and for the sole use of that facility, are within the affected source of the metal furniture surface coating NESHAP, we added the following definition to §63.4981 of the final rule to work in conjunction with the affected source definition in §63.4882(b) of the final rule:

Mix, mixed, or mixing means 1) to blend an as-purchased material to assure uniformity of its ingredients or 2) to combine two or more ingredients to produce a coating, thinner, or cleaning material solely for the use by the facility in which it is mixed for manufacturing or refurbishing metal furniture.

Comment: One commenter (IV-D-3) stated that military coatings are applied to tactical vehicles, support equipment, and other battlefield support material such as temporary base camps, deployable medical systems with metal racks, refrigeration and heating units and tactical shelters used to house communications and electronics equipment with metal racks, tables, desks and air conditioner/heater units. Such military equipment would potentially be subject to the metal furniture, large appliance, miscellaneous metal parts, wood furniture, and plastic parts surface coating rules. Chemical agent resistant coating (CARC) systems and other military-unique coating systems are used almost exclusively in these scenarios. Thus, one singular coating system might potentially have to

demonstrate compliance with a number of different NESHAPs, adding a tremendous administrative burden.

The commenter believed it would be difficult and costly to segregate the amount of coating used on metal furniture, appliances, and miscellaneous metal parts especially since the components are often painted at the same time using the same spray guns containing the same battlefield coating. The coatings used are combat oriented with specific military performance requirements. These battlefield coatings must perform many functions not required of metal furniture coatings typically found in commerce, including the following: resistance to chemical and/or biological agents, ability to be decontaminated without degrading the performance of the coating system, low observability and/or reductions in signature/detection properties, provide electromagnetic field (EMF) shielding, and provide field service protection of munitions for a period of 20 years.

The commenter suggested adding language to §63.4881(c) of the proposed rule stating that surface coating of metal furniture used by the military in a battlefield environment are to be regulated by the miscellaneous metal parts and products NESHAP.

Response: As stated by the commenter, this issue is not unique to the metal furniture surface coating surface category. The specialized military coatings are used on products within at least the metal furniture, large appliances, and miscellaneous metal parts surface coating source categories. Rather than forcing all of these products into one of the existing source categories (such as miscellaneous metal parts and products as suggested by the commenter), we believe the more appropriate approach is to create a new source category for equipment used by the military in battlefield situations or that are integral to military war-fighting equipment. In this way, we can more effectively address the concerns unique to these coatings. We note, however, that surface coating operations for the metal furniture addressed by this commenter will be subject to the final metal furniture surface coating rule until we propose a rule for the new source category.

2.2.2 Affected Source

Comment: Two commenters (IV-D-2 and 9) noted that the proposed rule “essentially states that companies are subject to the Metal Furniture NESHAP if they: 1) apply surface coatings to metal

furniture; 2) where metal furniture includes furniture or components of furniture constructed either entirely or partially from metal; and 3) the affected source is a major source of HAP or is located at a major source of HAP. The commenters requested specific language excluding non-major and/or area sources.

Response: We disagree that additional language is needed to exclude area sources. Paragraph 63.4881(b) of the proposed rule clearly states that an affected source must be a major source or located at a major source in order for it to be subject to the rule. The change requested by these commenters could result in the interpretation that any affected source that by itself is an area source, would not be subject to the rule. This interpretation is not correct when such an area source is located at a major source. In order to avoid this possible misinterpretation, we have not made the change suggested by these commenters in the final rule.

Comment: Two commenters (IV-D-2 and 9) noted that the preamble discusses an affected source as “the collection of all operations associated with the surface coating of metal furniture or components of metal furniture that are performed at a contiguous area under common control.” It is unclear why EPA has not defined the affected source in a manner similar to other standards by using terms such as facilities, major source, stationary source, or other terms familiar and well defined by rules and policy memoranda.

Response: As we explained in the preamble to the proposed rule, our primary goal in selecting the affected source was to ensure that MACT is applied to the HAP-emitting operations or activities within the source category. We can define the affected source in terms of a single stationary source (emission point), group of stationary sources, or part of a stationary source. We chose a broadly defined group of stationary sources primarily to give you increased flexibility in determining how to comply with the rule. Defining the affected source in this way provides you with the opportunity and incentive to utilize control strategies that are more cost effective than if separate standards were established for each emission point. Thus, you can choose where to most effectively implement controls for your particular facility.

Comment: Two commenters (IV-D-2 and 9) were concerned that §63.4881(c)(1) of the proposed rule says that the rule does not apply to surface coating operations “conducted at a source that uses only coatings, thinners, and cleaning materials that contain no organic HAP.” First, the commenters believed this is an example of where the rule is unclear with respect to the term “source.” Source is an undefined term. The rule should only use defined terms such as “major stationary source” or “affected source.” Second, it should be clarified that the determination that a substance “contain no organic HAP” is determined in accordance with the provisions of §63.4941(a)(1)(i) of the proposed rule.

Response: We agree that the use of term “source” in §63.4881(c)(1) of the proposed rule may be vague. In the final rule, we have replaced “a source” with “an affected source.” We also added that whether the material contains no organic HAP is determined by the procedures specified in §63.4941(a). This will clear up any ambiguity over whether a material containing only trace amounts of organic HAP would qualify as containing “no organic HAP.”

Comment: One commenter (IV-D-2) generally agreed with the list of the types of sources for which the proposed rule does not apply as presented in §63.4881(c)(5) of the proposed rule. The commenter proposed two changes be considered. First, §63.4881(c)(5) states: “Surface coating of metal furniture conducted for the purpose of repairing or maintaining metal furniture used by a facility and not for commerce is not subject to this subpart unless organic HAP emissions from the surface coating itself are as high as the rates specified in paragraph (b) of this section.” The phrase “unless organic HAP emissions from the surface coating itself are as high as the rates specified in paragraph (b) of this section” should be stricken. That phrase could be interpreted to mean that any facility that was a major source of HAPs (as defined under §63.4881 of the proposed rule) from surface coating operations would be subject to the proposed rule if they ever coated any metal furniture. Also, this provision uses the term “facility.” This provision should apply to both affected sources and other entities.

Response: We disagree that the phrase specified by the commenter should be removed. Our intent was to exclude small metal furniture surface coating operations that are incidental to other

manufacturing operations. However, if the repair and maintenance of metal furniture rises to the level of being a major source itself, then it must be regulated under the final rule. To do otherwise would violate the CAA and allow a major source to go unregulated. Also, the commenter's interpretation of the wording of this section *is* correct—if you are a major source and you coat metal furniture, then you are subject to the rule. You may then make use of the exemptions to the rule if they apply to your operations.

We agree that the use of the term “facility” does not correctly convey our intent. We have amended (c)(5) by substituting “facility” with “major source.” You must look at all the operations at a major source to determine which ones fit the description given in §63.4881(c)(5) of the proposed rule, not just those within the affected source.

2.2.3 Low Usage Exemption

Comment: Two commenters (IV-D-3 and 4) suggested that the rule should include a low use exemption. One commenter (IV-D-3) noted that such an exemption is consistent with other NESHAPs and many State rules upon which the NESHAPs are based. A low use exemption would prevent insignificant operations that occur at major HAP sources from being subject to the regulation. The commenters believed all surface coating rules should contain a low use exemption to prevent the rule from applying to insignificant metal furniture surface coating operations that do not qualify for one of the exemptions in the proposed rule. Such an exemption is appropriate for any major HAP source facility that performs insignificant amounts of metal furniture surface coating. It would also be inappropriate to regulate a private facility that is a major HAP source due to other operations, but performs an insignificant amount of metal furniture surface coating.

One commenter (IV-D-4) noted that like numerous other industries with incidental manufacturing of tools and support equipment, they fabricate a small quantity of metal furniture solely for their own use and not for commerce. EPA should exclude from the requirements of the proposed rule incidental metal furniture manufacturers who are primarily engaged in the manufacture of products other than metal furniture and who utilize no more than 100 gallons per month or 1,200 gallons per year of coatings to manufacture such metal furniture.

Response: The proposed rule was not intended to apply to incidental metal furniture surface coating operations when those operations were for the purpose of repairing or maintaining metal furniture used by a major source (see §63.4881(c)(5)). We specifically did not provide an exemption for the manufacture of metal furniture. If we allowed such an exemption, the possibility would exist for a large facility to manufacture most if not all of its own metal furniture free from the compliance requirements of this rule. This could result in a negative economic impact on the metal furniture industry. While the commenters suggested alternatives for a low usage exemption, no supporting data were included with these comments to demonstrate that the limits would assure that no sources would escape regulation that should be subject to the rule. We also considered establishing a low usage exemption when developing the proposed rule (such as the exemption in subpart JJ for incidental wood furniture manufacturers using no more than 100 gallons of finishing material or adhesives), but we did not have sufficient data to establish a limit. For these reasons, we have decided not to include a usage limit in the final rule.

2.2.4 Other Exemptions

Comment: One commenter (IV-D-5) said that although section 112 of the CAA does not allow EPA the discretion to exclude any sources which qualify as major sources, under the proposed rule, janitorial, building, and facility maintenance operations and coating applications using handheld nonrefillable aerosol containers are excluded from compliance even if they are emission points at a major source. The commenter believed this exemption contravenes the CAA, as well as EPA's own regulations.

The proposed rule also exempts those sources that conduct surface coating of small items such as hinges under the pretext that they serve a wider use than the metal furniture industry. The proposed rule also does not govern sources that repair and maintain metal furniture for non-commerce purposes. If the sources qualify as major sources and the emissions are the result of surface coating of metal furniture, then it was the commenter's opinion that the EPA has no authority to exclude such sources from compliance. Therefore, both of these exemptions violate the CAA and EPA's own regulations.

The proposed rule does not regulate wood furniture makers that also coat metal

components of that wood furniture purportedly because such sources are regulated under subpart JJ for wood furniture manufacturing. EPA itself has defined metal furniture to include “components of furniture constructed either entirely or partially from metal.” Therefore, it was the commenter’s opinion that this exclusion also violates the CAA.

Response: We disagree that the exemptions addressed by this commenter violate the CAA or our own regulations. Janitorial, building, and facility maintenance operations are not part of the metal furniture surface coating source category, even though they occur at the same facility at which metal furniture surface coating occurs. During our review of this issue, however, we found that defining “facility maintenance operations” would be helpful to distinguish these operations from operations within the source category. Thus, we added the following definition to §63.4891:

Facility maintenance operations means 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 also disagree that exempting nonrefillable handheld aerosol containers was a violation of the CAA. Under section 112(d)(1) of the CAA, we have the authority to “distinguish among classes, types, and sizes of sources within a category or subcategory in establishing . . . standards.” We considered nonrefillable handheld aerosol containers to be a different type of source (as compared to typical high capacity metal furniture 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 recordkeeping burden on the industry.

We do not believe this will create a loophole in the rule to allow sources to use large quantities of nonrefillable handheld aerosol containers to apply coatings. First, the metal furniture industry is highly driven by the appearance of the coating on the finished product. The high quality appearance demanded by customers cannot be achieved through the use of coatings applied from a handheld aerosol container. Second, many of the coatings used by the industry are custom made to each manufacturer’s specifications. Aerosol coatings are limited in availability, so the wide range of colors

and performance characteristics (such as wear resistance and flexibility) currently offered by furniture manufacturers could not be maintained. Third, aerosol containers apply coatings at a very slow rate compared to typical spray guns used in the industry. This slow application rate would slow production rates far below current levels. Finally, on a unit basis, aerosol containers of coating are more expensive than purchasing coatings in bulk, as nearly all furniture manufacturers do. Thus, it would be cost prohibitive for a furniture manufacturer to use aerosol coatings for more than just touch-up operations.

We have said that this rule does not apply to the coating of small items such as hinges and screws that have a wider use beyond metal furniture. Because these small items could be used by a number of different source categories (such as metal furniture, wood furniture, and large appliances), it would be impossible to determine which rule should apply when these parts are the only metal components coated at a major source facility. However, if coatings are applied to these small metal parts within a metal furniture facility, both the proposed and final rules specify that the coating operation would be included in the affected source and thus covered under the metal furniture rule.

We again disagree that it was improper for us to exclude surface coating operations for repair and maintenance of metal furniture not meant for commerce. The source category is described as including “any facility engaged in the surface coating and manufacture of metal furniture parts or products.”¹ We interpret this to mean that the parts and products are manufactured for commercial purposes. Therefore, operations such as repainting of metal furniture items at a hobby shop located on a military base or metal chairs used within a manufacturing facility for use by that facility's employees are not within the intended source category, so long as these repair and maintenance operations are not major sources.

Comment: One commenter (IV-D-5) believed that the exclusion of synthetic minor sources (those sources which would be considered major sources without the use of enforceable permit conditions) excludes significant sources of HAP from the proposed rule. Under National Mining

¹ Documentation for Developing the Initial Source Category List, Final Report. U.S. EPA, Office of Air Quality Planning and Standards. Research Triangle Park, NC. EPA-450/3-91-030. July 1992. p. A-31.

Association v. United States Environmental Protection Agency, 59 F.3d 1351, 1363 (D.C. Cir. 1995), controls may only be taken into consideration in determining a source's potential to emit (and thus, whether it is a major source), if they are "demonstrably effective." The proposed rule, however, allows sources to obtain synthetic minor status regardless of whether their limitations are "demonstrably effective." Thus, it provides no assurance that all major sources will be covered, as required by the CAA.

Response: The proposed rule allows a source to obtain synthetic minor status any time before the compliance date of the final rule (three years after promulgation of the final rule). In order to become a synthetic minor source, a facility would have to obtain a State operating permit containing operating or emission limits that maintain the synthetic minor status. We disagree that such operating permits cannot be classified as "demonstrably effective." All State operating permits require some level of monitoring to assure the permitting authority that the limits are being adhered to, and reporting results of the monitoring is also typically required. Consequently, the facility does demonstrate that real emission reductions are being achieved.

Section 112 of the CAA defines different criteria for developing rules for major sources and area sources. The proposed rule, as well as the final rule, applies only to major sources. Once the synthetic minor status is achieved, as long as it is before the compliance date, we have no authority to regulate the source under the final rule because it applies only to major sources. In the future, we may regulate metal furniture surface coating area sources under a separate rulemaking.

Comment: One commenter (IV-D-5) stated that the proposed rule excludes all inorganic HAP emitted by sources in the surface coating of metal furniture. The commenter believed this exemption is in violation of the CAA which requires EPA to set standards for all HAP emitted by the source category. Although EPA argues that the use of coatings containing inorganic HAP is not currently widespread enough to merit emissions standards, the commenter did not believe EPA has such discretion. The commenter pointed out the holding in National Lime v. EPA, 233 F.3d 625, 633-34 (D.C. Cir. 2000), which stated that EPA has a clear statutory duty to regulate all major sources of HAP emissions.

Response: In the preamble to the proposed regulation, we pointed out the very small usage of coatings in the metal furniture surface coating industry that contain inorganic HAP (two coatings out a total of approximately 680 coatings reported in industry questionnaire responses). Throughout the data gathering efforts (including site visits, industry questionnaires, and literature searches) for this rulemaking, we also found that coating application operations were predominately equipped with either dry filters or waterwash systems² to reduce the amount of overspray³ emitted to the atmosphere. Such control systems are common in many other coating industries as well, and are installed and maintained for a number of reasons. This type of control reduces the amount of coating droplets emitted to the atmosphere. Because the inorganic HAP are contained in these droplets, these control systems reduce the amount of inorganic HAP emissions. These controls have been in general use for many years. We know of no reason why the industry would remove these controls after the final rule is promulgated.

If we did develop a MACT floor for inorganic HAP, we expect that it would be the very dry filters and waterwash systems currently in place. Given the combination of very low usage of coatings containing inorganic HAP in the metal furniture surface coating industry as indicated above and the current (and expected continued) use of controls to reduce overspray emissions, we believe including such controls in the rule would not result in any additional emission reduction and only add to the regulatory burden on the industry and the permitting authorities. For these reasons, we have not added emission limits for inorganic HAP in the final rule.

2.2.5 Definitions

² See “National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Category: Metal Furniture Surface Coating—Background Information for Proposed Standards. EPA-453/R-01-010. U.S. Environmental Protection Agency. Research Triangle Park, North Carolina. October 2001. Section 4.2.

³ Overspray is the droplets of coating that do not adhere to the substrate being coated or the surfaces of the spray booth and are carried in the exhaust stream of the spray booth. Inorganic HAPs, because of their lack of volatility, are contained in these droplets.

Comment: One commenter (IV-D-2) noted that §63.4881(a)(1) defines “surface coating” as the “application of coatings to a substrate using, for example, spray guns or dip tanks.” The commenter thinks this definition is too broad for the rule. Since many stationary sources impacted by this rule may coat numerous substrates, this definition should restrict the definition of surface coating to those coatings applied to metal furniture or components of metal furniture. Also, the method of applying the coating is not necessary in the definition of surface coating. The commenter suggested revising the definition of surface coating to mean “the application of coatings to a substrate which is a component of metal furniture.”

Response: Paragraph 63.4881(a) defines the source category to which the proposed rule applies as the “surface coating of metal furniture.” Paragraphs 63.4881(a)(1) and (2) then define what we mean by “surface coating” and “metal furniture.” When these three paragraphs are read together as intended, not individually as the commenter has done, we believe there is no ambiguity, and the definitions are not overly broad. Also, the application methods are provided only as an example and do not limit the definitions in any way, and were provided simply as guidance to the reader. We believe the definitions are appropriate as written and made no changes in the final rule as a result of this comment.

Comment: One commenter (IV-D-2) noted that §63.4881(a)(2) defines metal furniture as “furniture or components of furniture constructed either entirely or partially from metal.” The commenter thought this definition was too broad for the rule. It would imply that any coating on any component constructed with any metal would be subject to this rule. Under this definition, even a piece of wood furniture, which contained metal fasteners or glides, would constitute metal furniture. This sets up a conflict between the definitions contained in the proposed rule and the provisions of the proposed rule whereby EPA attempts to avoid overlap of the multiple NESHAP surface coating rules. The commenter suggests changing the term “partially” to “predominantly” or “primarily.”

Response: As we discussed in previous comment responses concerning overlap between the proposed rule and other surface coating rules, we concluded that it was unworkable to define the affected source in terms of the amount of metal in the item being coated. We necessarily would have

had to define “predominantly” or “primarily” if we had chosen to use those terms in the definition. We deliberately did not include such limiting terms in the definition for the reasons discussed previously.

We did, however, realize that the definition used in the proposed rule could lead to apparent coverage of the same coating operations under both the metal furniture and wood furniture rules. For this reason, we included the exemptions in §63.4881 to clarify which of those operations would be subject to the proposed rule. We also provided guidance in previous comment responses (see Section 2.1.1 of this document) for determining applicability for several common situations.

2.3 MACT FLOORS

2.3.1 Basis of the MACT Floors

Comment: One commenter (IV-D-5) noted that the MACT floors, as specified in the CAA, must reflect the actual performance of the relevant best controlled sources. For new sources, this must be the single best performing source. The MACT floor for existing sources must be based on the average of the best performing 12 percent of sources. Rather than setting emission standards based on actual emissions, EPA proposed standards based solely on the HAP content of the materials used by a source. As EPA recognizes, however, some sources use capture technologies to control their emissions. Thus, their actual performance is affected by that technology as well as the HAP content in the materials. Accordingly, the commenter believed that the MACT floors do not reflect the best sources’ actual performance as required by the CAA.

Even assuming that EPA can base floors solely on the HAP contents in the materials used, the commenter believed the EPA has done so unlawfully. The CAA expressly requires EPA to base MACT floors on “the best performing twelve percent of the existing sources (for which the Administrator has emissions information).” Although EPA has emissions information for only 22 of the 49 major sources it identified in the category, the MACT floors were based on the HAP content for the best six rather than the best three (that is, 12 percent of 49 sources rather than 12 percent of 22 sources).

Response: We did not base the MACT floor on the HAP content of the materials used as the commenter stated. Rather, we calculated an emission rate for each source normalized by the amount of

coating solids used. For this calculation, a basic assumption we used was that all of the volatile components of the coatings, thinners, and cleaning materials used would evaporate and be emitted to the atmosphere. Except where add-on control devices are used, this is typically the case. In those instances where a facility in our database reported the use of an add-on control device, we took into account the capture and destruction efficiency of the control device when calculating the normalized facility emission rate for the purpose of determining the MACT floors. Thus, our analysis was in fact based on the actual performance of the sources as required by the CAA.

As discussed in the preamble to the proposed rule, there were a total of 49 facilities in the MACT floor database. Based on the information provided by these facilities in response to industry questionnaires, only 22 of these facilities provided all of the data required to calculate overall emissions in terms of kilograms organic HAP emitted per liter of coating solids used. We had nearly complete data on all of the other 27 facilities. From all of these data, we estimated that the subset of 22 facilities was an adequate representation of the 49 facilities. We believe that had we been able to determine the emission rates of the other 27 facilities, the values would have fallen within the range represented by the 22 facilities for which we had complete data. We believed that the existing source MACT floor would not have changed to any considerable degree if we had complete data for all 49 facilities. However, we agree with the commenter that the CAA language is explicit in that we must use 12 percent of the facilities for which we have emissions information (see section 112(d)(3)(A) of the CAA), which is 22 facilities. The existing source MACT floor would then be based on the best performing three facilities (12 percent of 22). This revised existing source MACT floor is 0.10 kg organic HAP per liter coating solids used (0.83 pounds per gallon). We changed §63.4890(c) of the final rule to reflect the revised existing source MACT floor.

Comment: Two commenters (IV-D-2 and 9) noted that in the Background Information Document (BID) accompanying the proposed rule, both major sources and synthetic minor sources were included in the calculation of the MACT floors. The commenters objected to the incorporation of synthetic minor sources in the MACT floor calculation because, by definition, the MACT standard is to apply to “major sources” of HAP.

Response: We disagree that the MACT floors must be based solely on major sources of HAP emissions. Section 112(d)(1) of the CAA directs us to promulgate regulations for categories of major and area sources of HAP emissions. Then, section 112(d)(2) mandates that these standards “shall require the maximum degree of reduction in emissions . . . achievable for new or existing sources.” Section 112(d)(3) specifies how we are to determine the maximum degree of emission reduction and describes it as “not less stringent than the emission control that is achieved in practice by the best controlled similar source” for new sources, and for existing sources describes it as “the average emission limitation achieved by the best performing 12 percent of the existing sources . . .” Even though Congress saw fit to distinguish between major and area sources in many other places in section 112 of the CAA, they did not specifically require that the floor be based on major sources alone. Throughout section 112(d), Congress simply used the term “source.” We interpret this to mean that Congress left it to our discretion to determine the most appropriate sources on which to base the MACT floors. Accordingly, for the proposed rule we used both major sources and synthetic minor sources as the basis of the MACT floors. We believe our interpretation of section 112(d) of the CAA is correct, and no changes were made to the final rule as a result of these comments.

Comment: One commenter (IV-D-5) stated that the CAA requires "the maximum degree of reduction in emissions of hazardous air pollutants" that can be achieved through substitution of materials; changes in processes; enclosures; collection, capture, and treatment; and design, equipment, work practice, or operational standards. The commenter believed that the EPA did not required the maximum degree of emission reduction when it developed the existing source MACT floor.

Despite the availability of coating technologies that may emit no organic HAP, such as powder, UV, and autophoretic coatings, the EPA did not require their use. Similarly, although the record shows that add-on capture and control technologies are available and currently in use, the EPA did not base the existing source MACT floor on the use of this technology. Basing the existing source MACT floor on these coating technologies and add-on capture and control technologies would have reduced emissions more than that achieved through the proposed rule. For example, the EPA published a report which shows that a capture rate of 75 percent would reduce emissions for the small, medium,

and large model plants to below 0.10 kg organic HAP/L coating solids used. Given that the EPA has not provided any reason to believe that the use of add-on technology is not achievable technically or economically, the EPA's refusal to set standards based on the use of such technology contravenes the mandate in section 112(d)(2) of the CAA for the maximum degree of emission reduction.

Furthermore, EPA did not require the use of low organic HAP content or organic HAP-free liquid coatings even though this would further reduce emissions. The record shows that some coatings currently in use contain no organic HAP and thus would have no organic HAP emissions. The EPA's sole reason for not incorporating such technology is that it does not consider them to be "different emission control technology" than what is already being used by the six best performing sources. First, it is unclear that the two coatings are in fact the same. Second, even if they were, the only relevant consideration under section 112(d)(2) is whether standards based on zero organic content would reduce emissions below the levels required by EPA's proposal and whether they would be achievable. It is plain that they would reduce emissions further, and nothing in the record suggests that they are, in any regard, not achievable.

Response: From the information provided by the commenter, it was unclear whether the comments were directed to only the existing source MACT floor or to the new source MACT floor as well. We decided that, since the arguments presented could apply to both MACT floors, we would consider both in our response.

The existing source MACT floor was based on the average emission rate of the best performing sources, as directed by section 112(d)(3) of the CAA (see the response to the first comment in Section 2.3.1 of this document for further discussion on the sources we used to develop the existing source MACT floor). We believe this was the proper procedure to use to determine the existing source MACT floor. The argument made by this commenter that we should have considered other emission control technologies when developing the existing source MACT floor is more appropriately addressed in Section 2.3.2 of this document (Alternatives More Stringent Than the MACT Floors).

In the preamble to the proposed rule, we discussed our findings that the use of organic HAP-free coating technologies was not widespread enough to cover the range of activities found in the entire metal furniture industry. While developing our response to these comments, we began to further

consider how the state-of-the-art for new sources has changed since our initial data gathering efforts. We have always recognized that there are certain coating technologies that may emit no organic HAP (according to §63.4941(a) of the final rule) such as powder coatings and liquid coatings that contain no organic HAP. The industry questionnaires that we conducted in 1998 (representing 1997 data) showed that of the 49 facilities that were eventually used for the MACT floor database, six used powder coatings exclusively. These powder coating facilities produced metal furniture items such as office chairs, dental chairs, commercial and residential lighting fixtures, and indoor and outdoor lighting fixtures. Of these six powder coating facilities, three had coating solids usages within the range represented by the facilities we used to determine the MACT floor (in other words, had these three facilities used conventional liquid coatings instead of powder coatings, we would expect them to be major sources of HAP emissions and they would have been included in the determination of the MACT floor). We believe these data demonstrate the industry's current ability to exclusively use powder coatings in many situations.

Based on the 1998 questionnaire responses of the 22 facilities that provided complete data, information was provided for 188 individual liquid coatings. Eight of these coatings were reported as containing no organic HAP. In addition, another 48 individual coatings were reported as containing less than 1 percent by mass of organic HAP (typically as a small component of a solvent blend such as aromatic naphtha). We believe that this high percentage of non-HAP (or essentially non-HAP) coatings used by these 22 facilities indicates the coating suppliers' ability to produce and market non-HAP coatings, and demonstrates that they are currently in use by the industry.

Over the past five years since we sent questionnaires to the metal furniture manufacturing industry, non-HAP coating technologies have undergone continual development. The availability of powder coatings in a wide range of colors has continually increased, as has the ability to produce various surface finishes and control film thickness. Coating manufacturers have also made significant strides in formulating non-HAP coatings, driven in large part by the requirements of surface coating NESHAPs for a wide variety of industries. In addition, we are aware of other coating technologies, such as electrocoating, that have the potential to emit no HAP. Although we are not currently aware of

these coating technologies being used in the metal furniture industry, we believe they can be used in certain circumstances and represent viable alternatives for new sources.

We believe the continual development of these non-HAP coating technologies over the past several years has allowed them to gain wider acceptance and use within the metal furniture surface coating industry such that we now believe they represent in the aggregate the MACT floor for new sources. Considering that new sources have much greater latitude than existing sources to design manufacturing operations and the metal furniture items themselves to accommodate these coating technologies, new sources can more readily take advantage of these coating technologies. Accordingly, we have revised the new source MACT floor to be no emissions of organic HAP from metal furniture surface coating operations. The emission limit for new sources in §63.4890 of the final rule reflects this new MACT floor determination.

We also recognize that there may be specialized appearance or functional characteristics can be produced only with coating technologies employing organic HAP, even for new sources. To accommodate these situations, we added a provision in the final rule that allows a new affected source to demonstrate on a case-by-case basis that organic HAP-free coating technologies cannot be used. If we approve such a request, then the source would be required to meet an emission limit of 0.094 kg organic HAP/L (0.78 lb/gal) coating solids used, which is the new source emission limit originally proposed for new sources. The following language was added at §63.4890(b) of the final rule:

(b) Alternative emission limit. You may request approval from the Administrator to use an alternative new source emission limit for specific metal furniture components or type of components for which you believe the emission limit in paragraph (a) of this section cannot be achieved.

(1) Any request to use an alternative emission limit under paragraph (b) of this section must contain specific information demonstrating why no organic HAP-free coating technology can be used on the metal furniture components. The request must be based on objective criteria related to the performance or appearance requirements of the finished coating, which may include but is not limited to the criteria listed in paragraphs (b)(1)(i) through (viii) of this section.

- (i) Low dried film thickness requirements (e.g., less than 0.0254 millimeters (0.001 inch)).
- (ii) Flexibility requirements for parts subject to repeated bending.
- (iii) Chemical resistance to withstand chemical exposure in environments such as laboratories.
- (iv) Resistance to the effects of exposure to ultraviolet light.
- (v) Adhesion characteristics related to the condition of the substrate.
- (vi) High gloss requirements.
- (vii) Custom colors such as matching the color of a corporate logo.
- (viii) Non-uniform surface finishes such as an antique appearance that requires visible cracking of the dried film.

(2) If the request to use an alternative emission limit under paragraph (b) of this section is approved, the new source must meet an emission limit of 0.094 kilogram organic HAP per liter (kg/L) (0.78 pounds per gallon (lb/gal)) coating solids used for only those components subject to the approval. All other metal furniture surface coating operations at the new source must meet the emission limit specified in paragraph (a) of this section. Until approval to use the alternative emission limit has been granted by the Administrator under this paragraph, you must meet the emission limit specified in paragraph (a) of this section and all other applicable requirements in this subpart.

2.3.2 Alternatives More Stringent Than the MACT Floors

Comment: One commenter (IV-D-2) supported EPA's analysis of alternatives more stringent than the MACT floor. The commenter thought that the floors represent stringent standards for both new and existing sources.

Response: We appreciate the commenter's support on this issue. Based on other comments, however, we revised the MACT floor for both new and existing sources as discussed in Section 2.3.1 of this document.

Comment: One commenter (IV-D-7) pointed out that similar emission limits for affected new sources have been in place for over two decades under the metal furniture surface coating NSPS (40 CFR part 60, subpart EE). While the proposed rule may be more far reaching in the definition of affected source, the NSPS requirements are potentially more stringent in that they more comprehensively address VOC emissions rather than the subset of HAP emissions. Because the NSPS standard has been in effect for over two decades, it seems logical that the MACT standards for both existing and new sources should be more stringent. Clearly, adopting standards for existing sources that are less stringent than 20-year-old NSPS requirements is a problem. For perspective, by the time the MACT standards are fully in effect later this decade, the NSPS requirements will have been in effect for nearly 30 years. The commenter believed this is adequate justification for EPA to reexamine the rationale that supported the rejection of alternatives more stringent than the MACT floor.

Response: The CAA gives us authority to regulate only HAP, not VOC. Thus, without further justification that VOC could be used as a surrogate for HAP, we have no authority to regulate VOC directly through the proposed rule. Therefore, we disagree with the assertion that because the NSPS may regulate a broader group of pollutants, we should further consider alternatives more stringent than the MACT floors.

We believe it is improper to determine which of these two rules is more stringent simply by looking at the numerical emission limit. First, the affected source for subpart EE is each individual coating operation. The affected source for the proposed rule is the collection of all coating operations; all storage and mixing vessels; all equipment and containers and all pumps and piping within the affected source used for conveying coating, thinning, and cleaning materials; and all storage containers and equipment and containers for conveying waste materials. Because of this more encompassing affected source in the proposed rule, many more emission points are included, as well as more materials from which the emissions emanate (coatings, thinners, cleaning materials, and waste as opposed to just coatings and thinners).

Second, while the emission limits in both rules are normalized by the volume of coating solids, the proposed rule counts all coating solids *used*, while subpart EE counts all coating solids *applied*. Consequently, subpart EE requires determination of transfer efficiency and subsequent calculation of the

amount of solids actually applied to the substrate. In contrast, the proposed rule does not take transfer efficiency into account. Instead, the proposed rule counts all coating solids that enter the coating application process, regardless of their ultimate fate.

Because of these basic and substantial differences in these two rules, a direct comparison of their stringency is not a straightforward exercise. Accordingly, based on this comment, we do not believe further consideration of alternatives more stringent than the MACT floor is warranted.

Comment: One commenter (IV-D-7) noted that the purpose of the NESHAP control program is to set national emission standards for major sources in industries that emit HAP. The CAA clearly identifies the MACT floor as the minimum baseline requirement under the NESHAP program. The EPA is encouraged to then consider alternatives more stringent than the MACT floor. In fact, the CAA requires the NESHAP to reflect the maximum degree of reduction in HAP emissions that is achievable. Although the proposal identifies at least three alternatives that should be fully considered in establishing the existing source MACT floor, the proposal failed to conform to the requirements of the CAA.

The EPA dismissed individually three alternatives: powder coatings, lower organic HAP liquid coatings, and emission capture and control technologies. In the case of powder coatings and lower organic HAP content liquid coatings, the EPA reasoned that these options cannot be used on all product types in this industry, and did not warrant further consideration. The capture systems and control devices alternative was rejected solely on cost.

The proposal states that, conservatively, a capture and control system could cost approximately \$1 million. However, the lack of experience in applying these controls to this specific industry, rather than lack of feasibility, and the case-by-case nature of applications, make this cost prediction unreliable. The commenter disagreed with the conclusion that the additional emission reduction would not justify the additional cost. The emission reductions are substantial and the actual cost of control for this alternative is inconclusive at best.

Table 6-3 in the BID to the proposed rule identifies the substantial emission reductions that would be achieved by establishing more stringent emission rates or levels that can be achieved by

capture and control technology. The commenter believed the conclusion to dismiss all of the more stringent alternatives based on emission limits was inconsistent with the stated information.

The commenter believed that all three options appear to be technically feasible. Emissions capture and control devices have broad applicability throughout the surface coating of metal furniture industry, and the coating alternatives, while not universally applicable, provide a strong and effective alternative for various segments of the industry. In fact, the reductions achievable by these alternatives should collectively form the basis for the MACT standard. As such, given the wide range of alternatives and their applicability, EPA should establish the MACT standard based on what is achievable and allow industry to determine which alternative is the best fit.

Another commenter (IV-D-5) believed that the use of alternatives more stringent than the MACT floors was dismissed because the EPA claimed it did not have the necessary information on the benefits which would be achieved by reducing emissions below the floor. According to the commenter, the only benefit that EPA may consider under section 112(d)(2) is emission reduction. Congress has mandated the maximum degree of reduction achievable, regardless of what EPA believes the benefits of such a standard to be. Thus, EPA's doubts about the benefit of a greater degree of reduction are statutorily irrelevant.

Response: We agree that there are specific circumstances in which the three more stringent alternatives are in use by existing sources and discussed this in the preamble to the proposed rule (see 67 FR 20215-6). In that discussion, we also examined the limitations of powder coatings, lower organic HAP content liquid coatings, and organic HAP-free liquid coatings and concluded that all of the coatings currently applied by existing metal furniture surface coating facilities cannot be replaced by any combination of these coatings. Although new sources have increased flexibility over existing sources to make these coating technologies more viable (see our discussion in Section 2.3.1 of this document) we continue to believe that existing sources cannot make use of these coating technologies in all situations. Therefore, existing facilities would either have to stop producing those products that could not be coated using one of the two alternatives (powder coatings and lower organic HAP content liquid coatings), or produce an inferior product using one of the two alternatives. Section 112(d)(2) of the CAA directs us to promulgate standards that require the maximum amount of emission reduction

achievable by all sources in the source category. Since these alternatives cannot replace all current coatings in use by existing sources, the potential emission reduction they represent is not achievable and a standard based on the two alternatives would thus violate the CAA. We also believe that stopping production of certain products or producing inferior products would create a severe economic burden on the industry. Because section 112(d)(2) directs us to consider the cost of achieving this additional emission reduction, we believe the economic burden on the industry would be unreasonable in comparison to the emission reduction achieved. Again, we would be in violation of the CAA if we used these alternatives as the basis for a standard more stringent than the MACT floor for existing sources.

Furthermore, the format of the standard in the proposed rule (mass of organic HAP per volume of coating solids used) encourages the use of these lower organic HAP technologies. We believe existing sources will increasingly use such technologies because they beneficially affect the compliance demonstration calculations. We also clarify that contrary to the reasoning presented by one of the commenters, the MACT floor cannot be based on just a coating; the MACT floor must be based on the entire source (section 112(d)(2) and (3) of the CAA).

We did identify add-on capture and control technology as a technically feasible alternative more stringent than the MACT floors. One commenter questioned the basis for our cost estimate of this option as presented in the preamble. We note here that the preamble contained only a brief summary of a thorough cost analysis using accepted EPA methodology for estimating the cost of both a total enclosure and a thermal oxidizer. This analysis is documented in the project docket (Docket No. A-97-40). Through this analysis, we determined that the cost of additional emission reduction beyond that achieved by the emission limits in the proposed rule, on a nationwide basis, of installing add-on capture and control systems on existing sources would be \$138,000 per megagram of additional HAP emission reduction (\$125,000 per ton). We believe these costs are unreasonable and any standard based on them would violate the directive of section 112(d)(2) of the CAA to consider the cost of achieving the additional emission reduction.

One commenter also objected to our statement in the preamble that we did not consider above-the-floor options because we did not know the benefits of implementing such options. When we used the term "benefits," we meant the affect on environmental and health risks associated with HAP

emissions from the metal furniture surface coating industry. We did not reject the above-the-floor options solely because we lacked this benefits information. We simply stated that, given the excessive cost of additional organic HAP emission reduction that would be imposed by above-the-floor options, we had no information on the benefits of further reducing organic HAP emissions that would compel us to choose an above-the-floor option anyway.

For all of these reasons, we believe our rejection of the alternatives more stringent than the MACT floors for existing sources was correct and appropriate. In Section 2.3.1 of this document we discussed how we revised the new source MACT floor determination. Because the revised MACT floor is zero organic HAP emissions, there was no need to discuss comments concerning alternatives more stringent than the floor as directed to new sources.

2.4 EMISSION LIMITS

2.4.1 Compliance Options

Comment: One commenter (IV-D-2) requested that §63.4890 clearly state that the emission limitations are to be determined on a monthly average basis.

Response: In §63.4890, we specify that the emission limitations are to be met for each compliance period. We disagree that this section should specify the length of the compliance period. We detailed the length of the compliance period as one month in §§63.4942(a), 63.4952(a), and 63.4963(a) (renumbered as §63.4962(a) in the final rule) of the proposed rule, which present the compliance determination procedures. We believe it is clearer to have the compliance period specified along with the compliance demonstration procedure.

Comment: One commenter (IV-D-2) noted that §63.4891 of the proposed rule addresses which materials must be included in emission calculations for purposes of demonstrating compliance. For purposes of clarity and to avoid any potential overlap problems between various surface coating NESHAPs, this provision should clearly state that the materials to be accounted for are those "coatings, thinners, and cleaning materials used for the manufacture of metal furniture."

Response: Section 63.4891 of the proposed rule directs you to “include all coatings, thinners, and cleaning materials used in the affected source” in your compliance demonstration. Because the affected source necessarily includes only those operations used for surface coating of metal furniture (see §63.4882(b) of the proposed rule), only the coatings, thinners, and cleaning materials used for the manufacture of metal furniture would be included. Thus, the additional language requested by the commenter would be redundant, and we did not make the change in the final rule.

Comment: One commenter (IV-D-2) noted that §63.4891(a) of the proposed rule describes the compliant material option as requiring that the organic HAP content of each coating used in the coating operation be less than or equal to the applicable emission limit in §63.4890, and that each thinner and each cleaning material used contains no organic HAP. This provision appears to require double counting of thinners and cleaners. First, they must individually not contain any HAPs, and second, they must be included in the calculation of overall organic HAP emissions. Although the commenter understood that the floor was based on HAP content of coatings including thinners and cleaners, they did not recall any basis for requiring each thinner and each cleaning material to contain no organic HAP. In particular, this provision does not appear to be supported by the data reflecting existing sources. The commenter recommended striking the provision that each thinner and cleaning material contain no organic HAP and instead merely include the HAP content of those materials in with other coatings used across the affected source.

Response: The commenter misunderstood the purpose of this compliance option. This option is intended for a specific subset of facilities that are not using add-on control devices to comply with the emission limits and all the coatings they use individually meet the emission limits in §63.4890 of the proposed rule. Additionally, since the compliance calculations include thinners and cleaning materials, this specific subset of facilities also must use thinners and cleaning materials that all contain no organic HAP. When these restrictions are met, then we have realized that 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 proposed rule. The changes requested by the commenter are already included in

the proposed rule under the heading “Compliance Requirements for the Emission Rate Without Add-On Controls Option” (see §§63.4950 - 63.4952), which contain the emissions averaging provisions that are necessary when the above restrictions are not met (for example, when a thinner containing xylene is added to a coating). Therefore, no changes were made to the final rule in response to this comment.

Comment: One commenter (IV-D-2) said that there is no requirement in §63.4892(a) of the proposed rule to meet the operating limits in the rule if the affected source chooses the compliant material option. However, the term "affected source" is not contained in this portion of the rule. Instead, only the term “coating operation(s)” is used. The commenter suggested clarifying this provision by adding the term "affected source".

This commenter also recommended that the term "affected source" should be included in §63.4893(a) to clarify applicability of the provision.

Response: Both of these paragraphs are correct as written in the proposed rule. You may use different compliance options on different coating lines if you so choose (as long as the proper recordkeeping is performed). Therefore, if you choose the compliant material option on one line, but not on another, only the coating line for which the compliant material option is used would not be required to meet the operating limits and work practice standards. The other coating line would have to meet the operating limits and work practices. Thus, the correct terminology is coating line, not affected source.

Comment: One commenter (IV-D-5) thought that the initial compliance requirements for existing sources are inadequate to satisfy the requirements of the CAA. The proposed rule would allow sources to exclude organic HAP present in the products as purchased if they are less than 0.1 percent by mass for OSHA listed carcinogens and less than 1.0 percent by mass for other compounds. The CAA explicitly considers emissions “in the aggregate” for determining whether a source can be characterized as a major source. There is no justification for filtering out emissions to determine compliance when reduction of the emissions taken as a whole is the very purpose of the CAA.

Accordingly, the reporting requirements allow sources to claim compliance through reducing emissions reporting requirements, despite the fact that when these emissions are considered in the aggregate the source may in fact be emitting more than is allowed under the standards.

Response: When we developed the MACT floor for the proposed rule, we used information provided by metal furniture surface coating facilities to determine the organic HAP content of the coatings, thinners, and cleaning materials these facilities used. Most of the information provided to us was obtained from material safety data sheets (MSDS) compiled by the manufacturers of the materials. These MSDS are routinely used to comply with the Occupation Health and Safety Administration (OSHA) hazard communication requirements of 29 CFR 1910.1200. These requirements state at 29 CFR 1910.1200(d)(5)(ii):

If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it contains a component in concentrations of 0.1 percent or greater which is considered to be a carcinogen under paragraph (d)(4) of this section.

Thus, MSDS generally report carcinogens present at a concentration of 0.1 percent or greater and other components at 1.0 percent or greater. Since we developed the MACT floor using, in large part, information from MSDS, the compliance procedure in the proposed rule must necessarily be consistent with the MACT floor determination. Therefore, the proposed rule excluded carcinogens present at less than 0.1 percent and other HAP present at less than 1.0 percent.

Furthermore, when we developed the proposed rule, we looked for opportunities to reduce the compliance burden on both the regulated industry and the permitting authorities. One such opportunity was to allow sources to use manufacturer's data (often this is in the form of material safety data sheets (MSDS)) to obtain relevant information on coatings, thinners, and cleaning materials to perform the compliance calculations. We allowed this in the proposed rule with the provision that results from EPA test methods would take precedence if there was a difference between the manufacturer's data and the test method results in a compliance action. When we discussed this option with the industry, they

pointed out that MSDSs often do not report ingredients present in concentrations less than the OSHA cutoffs of 0.1 percent by mass for carcinogens and 1.0 by mass for other compounds. It would be possible, then, that the organic HAP content of coating as listed on the manufacturer's data could be slightly less than that obtained by a Method 311 test.

We did not want to create a situation where a source in good faith was using coatings that they thought had organic HAP contents just below the emission limits as listed on the manufacturer's MSDS, then have those coatings tested by the permitting authority using Method 311 and find a slightly higher organic HAP content due to HAP not listed on the MSDS because of its low concentration. We did not believe this to be a fair situation when the source was acting in good faith to comply with the rule. Therefore, since we expect the majority of the industry to use manufacturer's data for compliance purposes and typically this will be in the form of MSDSs, we included in the proposed rule the cutoffs of 0.1/1.0 percent by mass for Method 311 testing.

2.4.2 Work Practice Standards

Comment: One commenter (IV-D-2) thought that §63.4893(b)(1) of the proposed rule regarding work practice standards should be clarified so as to require that organic-HAP-containing materials be stored in “normally” closed containers. The current language requires that the materials be stored in “closed containers” which would be impossible since the material would have to have some means of entering the container.

Response: While we believe the intent of the language in the proposed rule is clear and doubt there would be any misunderstanding in practice, we have revised this paragraph in the final rule as follows to assure clarity:

(1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers. You must ensure that these containers are kept closed at all times except when depositing or removing these materials from the container.

Comment: One commenter (IV-D-2) stated that §63.4893(b)(2) of the proposed rule requires spills of organic HAP materials be minimized. The commenter agreed with this provision. This is not

only environmentally sound, but economically sound as well. However, the commenter requested that this provision clarify that spilled organic HAP material would not be included in compliance calculations. Such spills would instead constitute an unusual emission which may require reporting under other CAA provisions, but should constitute an upset or "malfunction" under which the emission limits would not apply.

Response: The proposed rule already allows you to take into account the organic HAP content contained in waste material shipped offsite for disposal (see, for example, Equation 1 of §63.4951). If the virgin material or waste is not disposed offsite, then we assume it is being used within the affected source and must then be accounted for in the compliance equations.

Comment: One commenter (IV-D-2) stated that §63.4893(c) of the proposed rule provides that the "U.S. Environmental Protection Agency" may grant permission to use alternative work practice standards. We agree with and support the concept but, for purposes of consistency and clarification, the term "Administrator" should be used in place of the name of the Agency.

Response: We agree with the commenter and have made changes as appropriate in the final rule.

2.5 COMPLIANCE DETERMINATIONS

2.5.1 Support for the Proposal

Comment: Two commenters (IV-D-2 and 9) supported the EPA's use of manufacturer's data as a source of information needed for compliance determinations. Both commenters also believed that the Occupational Safety and Health Administration (OSHA) cut-offs used in material safety data sheets⁴ (MSDS) are acceptable cut-offs for purposes of evaluating organic HAP content. The commenters strongly supported using MSDS in this fashion. One commenter (IV-D-2) also supported the proposed methodology for mass balance calculations.

⁴ In many cases, MSDS report ingredients only if they exceed the following criteria: OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) present at 0.1 percent by mass or more; all other compounds present at 1.0 percent by mass or more.

Response: The final rule retains the use of manufacturer's data for compliance determinations, the OSHA cut-offs for evaluating organic HAP content, and the mass balance calculations. However, the facility retains responsibility should the coating be determined to be non-compliant using the prescribed test methods.

Comment: One commenter (IV-D-2) supported the proposed monthly compliance period for sources demonstrating compliance based on materials used in the coating operation.

Response: The monthly compliance period has been retained in the final rule.

2.5.2 Compliance During Periods of Startup, Shutdown, and Malfunction

Comment: One commenter (IV-D-5) took issue with the provision in the proposed rule that states compliance with the startup, shutdown, and malfunction plan is considered compliance with the rule. The commenter believed that the CAA is clear that sources must comply with emission standards continuously, and only limited exception to that rule is allowed for unavoidable deviations during startup, shutdown, and malfunctions under a technology-based emission standard. Allowing sources to comply to avoid enforcement actions merely by demonstrating that they were in compliance with their own startup, shutdown, and malfunction plans necessarily allows them to operate at less than continuous compliance even if their deviation was not unavoidable. Accordingly, the commenter believed the proposed startup, shutdown, and malfunction provision does not comply with the CAA.

Response: In §63.4900(a)(2) of the proposed rule, we stated that “[a]ny coating operation(s) for which you use the emission rate with add-on controls option, as specified in §63.4891(c), must be in compliance with the applicable emission limit in §63.4890 at all times except during periods of startup, shutdown, and malfunction.” This provision is often found in NESHAP in which compliance with the standards is based solely on the results of a short-term initial performance test and short-term averaging of continuous monitoring results thereafter. In consideration of this comment, we realized that this provision is not appropriate for the surface coating NESHAP when these short-term tests and monitoring results are only one component of a compliance determination that determines emissions over a long period of time, which in this case is a month. For the metal furniture surface coating

NESHAP, the source owner or operator will use the performance test and continuous monitoring results in combination with data on coatings and other materials used over a month's period of time. These components will be combined to calculate a monthly organic HAP emission rate. Since there may be many startups and shutdowns of a coating operation over the course of a month as part of normal operation, it is not appropriate to exempt such periods from compliance with the standards. We believe that a month-long compliance period will accommodate potential short-term higher emission rates that might occur due to startup, shutdown, or malfunction and that the proposed exemption is not necessary or appropriate. Therefore, it is not included in the final rule. Additionally, in order to be consistent with this change as finalized in §63.4900(a), paragraph (h) of §63.4963 of the proposed rule (renumbered as §63.4962 in the final rule) was not included in the final rule.

2.5.3 Compliance Period

Comment: One commenter (IV-D-6) noted that §63.4968(a)(1) of the proposed rule uses the term “successive” to mean periods of time that do not overlap, and the end of one period is the beginning of the next time period. The next paragraph (§63.4968(a)(2)) uses the term “successive” to define the 3-hour compliance period. This definition rules out the use of a rolling 3-hour compliance period such that in an 8-hour workday, only 2 compliance determinations may be made. One could conclude that the 2-hour period at the end of the 8-hour workday is not assessable for compliance purposes due to only 2 hours being available in the third compliance period in the workday. A facility could run the process (and control equipment) only in 2-hour blocks that would effectively prevent a compliance determination from ever being made. The rule could state that a 3-hour “block” average would include all data during any part of that period, the almost universal interpretation given in this type of situation by EPA and other permitting authorities. However, the commenter recommended deleting the word “successive” and instead require that “any 3-hour period” could be used. The latter means a rolling 3-hour period based on hourly averages computed for each hour based on any available data for that hour.

Response: We agree with the commenter that the word “successive” should not have been used to describe the 3-hour periods in §63.4968(a)(2) of the proposed rule (renumbered as

§63.4967(a)(2) in the final rule). As evidenced in Table 1 to the proposed rule (67 FR 20244), we meant “any 3-hour period of normal operation” (that is, a rolling 3-hour period). In the final rule, we have followed the commenter's suggestion and deleted the word “successive” in §63.4967(a)(2). The paragraph now reads as follows:

- (2) You must determine the average of all recorded readings for each ~~successive~~ 3-hour period
...

2.5.4 Monitoring

Comment: One commenter (IV-D-5) believed that the CAA requires the EPA to set standards for the metal furniture surface coating source category based on actual emissions, not just the organic HAP content of the liquid surface coating materials used. The monitoring provisions for such standards must necessarily require emissions monitoring, not just monitoring of HAP content.

Response: As we discussed in our response to a related comment in Section 2.3.1 of this document, one of our basic assumptions in the development of the proposed rule was that all of the volatile components of the coatings, thinners, and cleaning materials used by a source will evaporate and be emitted to the atmosphere. Under this assumption, the organic HAP content of the materials is used to derive the emission rate (kg organic HAP emitted per liter of coating solids used). The volume of coating solids used is a good measure of the surface area coated or production rate. Thus, monitoring of the organic HAP content of the materials used and the volume coating solids used provides a means of monitoring emissions based on production.

2.5.5 Miscellaneous Comments

Comment: One commenter (IV-D-6) suggested that §63.4967(c)(1) of the proposed rule (renumbered as §63.4966(c)(1) in the final rule) indicates that only one desorbing gas mass flow measurement and one carbon bed temperature measurement is taken during the performance test, either before or after the performance test. The paragraph following indicates that the minimum and maximum values, respectively, are used as operating limits. The commenter believed that the proposed rule was meant to require monitoring and recording of desorbing gas flow and carbon bed temperature

either before or after each performance test run so that sufficient data can be obtained to establish the operating limits. This change allows the determination of a minimum or maximum value (as specified in §63.4967(c)(2)) to be used in future compliance determinations.

Response: The proposed rule is correct as written. The desorbing gas mass flow is *measured* continuously throughout the regeneration cycle, then one measurement of the total mass flow is *recorded*. This value then becomes the minimum desorbing gas mass flow for subsequent regeneration cycles. The proposed rule does not, contrary to the commenter's interpretation, say that only one measurement is to be taken.

A single measurement of the carbon bed temperature is *recorded* after completion of the regeneration cycle. This recorded temperature value is the maximum achieved during the regeneration cycle. In all likelihood, the temperature will be *measured* continuously because generally the temperature measuring device is permanently mounted in the carbon bed. The carbon bed temperature for subsequent regeneration cycles must be at least as high as the maximum temperature achieved during the performance test. We believe these two paragraphs are correct as written, and we made no changes to the final rule in response to this comment.

Comment: One commenter (IV-D-9) expressed concern over the use of kg organic HAP/liter of coating solids used as the metric for the emission limit in the proposed rule. The EPA has indicated that eight out of the eleven new surface coatings MACT standards that are currently under development will use this metric. The EPA also indicated that the use of this metric is based on an “equity” issue, and that it makes the comparison of one technology or formulation to another easier. The commenter was concerned about this “equity” argument and stated that “if EPA is truly concerned about ‘equity’ why do they, in determining the MACT floor, go through such a convoluted process to calculate facility HAP emission rates by using, in many cases, an arbitrary ‘default’ density for conversion between units of mass and volume.”

The commenter believed the use of a mass-to-mass metric would have eliminated the need to use an arbitrarily chosen default value to determine the volume coating solids and the use of this

convoluted process to determine the emission rates. The commenter suggested that the EPA should use the mass-to-mass metric for the emission rate.

The commenter also questioned the use of the two ASTM test methods for the determination of volume coating solids (ASTM D-2697 and D-6093). The commenter believed that virtually all of the data on volume coating solids is based on theoretical formulation values. The two test methods referenced in the proposed rule are not routinely run (if at all) by manufacturers of metal furniture coatings. In the preamble, the EPA makes no comment on the viability of these two test methods, which the commenter has questioned as unrealistic and unreliable for compliance enforcement purposes.

Response: We selected the units of “mass of organic HAP per volume of coating solids used” to normalize the assessment of organic HAP emissions across all affected sources. These units relate directly to production rates assuming that average dry film coating thicknesses are fairly constant across all product types. We believe that the use of mass of coating solids in the denominator of the standard would penalize operations using lower density pigmented coatings (that is, a lower denominator in the emission calculation would lead to a higher apparent emissions value), while providing an advantage to users of higher density coatings. Therefore, an emission limit based on volume of coating solids was deemed to be more equitable.

We did not use an arbitrary default density in the calculation of volume solids. We requested volume solids data from the industry through questionnaires sent out to a representative selection of the metal furniture surface coating facilities. Many of the questionnaire recipients provided these data. For those that did not provide volume coating solids data, it was calculated from a knowledge of the volume of volatiles (assuming that the sum of the volatiles and nonvolatiles volumes is equal to the volume of the coating). When the volume of volatiles was not given, it was calculated using the actual average volatile density as calculated from the densities of the individual volatile components (available from standard reference sources) and the mass fraction of the volatile components from the data provided in the questionnaire response (these data were typically from an MSDS). The data we obtained from MSDS were often stated as a range. When this was the case, we used the mean of the given range in our calculations. We believe these calculation methodologies are straightforward engineering calculations

that are readily apparent from the data we had available. The commenter's characterization of them as a “convoluted process” is unwarranted and greatly exaggerated.

The format of mass of pollutant per volume of coating solids was also used in the new source performance standards (NSPS) for metal furniture surface coating (see 40 CFR 60, subpart EE) and several other surface coating NSPS. A format of mass of pollutant per volume of coating less water and exempt solvents has been used in many surface coating Control Technique Guidelines (CTG). For purposes of consistency with these other requirements, it is most advantageous for source owners and operators subject to different Federal rules to use similar formats in determining compliance with these rules. For the most part, sources in the surface coating categories are accustomed to the volume coating solids format in EPA regulatory materials, and they have not argued for a change to mass of coating solids. For example, our RACT/BACT/LAER Clearinghouse (RBLC) provides a compilation of determinations made for the level of control considered to be RACT, BACT, and LAER. We searched this database for all BACT determinations (those determinations related to new source review permits) for the period of 1988 to 2002 under the surface coating industry category. For VOC control, there were 110 determinations that listed the primary units of the permit limits as mass VOC per volume coating solids. As is apparent from these data, the surface coating industry has long been familiar with these units and has broadly incorporated them into their operating permits.

Consistency in reporting compliance with the various standards to which a source is subject will also simplify the enforcement of these NESHAP. We agree that consistency in format is also helpful to sources subject to more than one NESHAP. Most of the proposed surface coating NESHAP and those under development use the volume coating solids format. For these reasons, we did not change the format of the emission limits in the final rule.

Concerning the use of ASTM D-2697 and D-6093 for determining the volume coating solids, the commenter provided no data in support of any other alternatives. In the absence of any data showing the relationship of volume coating solids measured with the ASTM methods to theoretically determined values, we have concluded that either means of volume coating solids quantification is acceptable. Based on this comment, we did realize that there may be situations for some coatings

where either the ASTM test methods or manufacturer's data cannot be used to determine the volume fraction coating solids. We added §63.4941(b)(3) to the final rule for this situation:

(3) Calculation of volume fraction of coating solids, V_s . If the volume fraction of coating solids cannot be determined using the options in paragraphs (b)(1) and (b)(2) of this section, you must determine it using Equation 1 of this section:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \quad \text{Eqn. 1}$$

Where:

V_s ≡ Volume fraction of coating solids, liters coating solids per liter coating.

$m_{volatiles}$ ≡ Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

D_{avg} ≡ Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-98, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 test results and other information sources, the test results will take precedence.

2.6 NOTIFICATION, RECORDKEEPING, AND REPORTING

2.6.1 Initial Notification

Comment: Two commenters (IV-D-2 and 9) requested a change in the implementation of the proposed rule as related to section 112(j) of the CAA. In accordance with section 112(j) and the provisions of 40 CFR 63.53, one commenter has already submitted a Part 1 notification for the affected source by May 15, 2002. Both commenters requested that the final rule reflect that sources that

submitted such notifications be exempt from the initial notification requirements of the General Provisions (40 CFR 63, subpart A) as the notices are redundant.

Response: We disagree with the commenter. The requirements of both 40 CFR 63.9 and 63.53 must be met. It is also important to clarify that the requirements in 40 CFR 63.53 address applications for case-by-case MACT determinations, not notifications, as the commenters stated. More specifically, the provisions in 40 CFR 63.53 address the application requirements for a source when the relevant MACT standard has not been promulgated by the date required by the CAA and the provisions in 40 CFR 63.9 address the notification requirements for a source when it becomes subject to the relevant standard. Lastly, the content and timing of the initial notifications required by 40 CFR 63.9 differ from the content and timing of the applications required by 40 CFR 63.53.

Comment: One commenter (IV-D-2) was concerned about the statement in the preamble to the proposed rule at page 20212 that companies would be required to “send a notification of planned construction or reconstruction of a source that would be subject to the rule and apply for approval to construct or reconstruct.” The commenter believed this statement should be clarified to reflect that such notice and approval would merely involve the current pre-construction/installation permit program present in each and every State and that there is no other notification or approval process required for construction or reconstruction.

Response: We disagree with this commenter. The requirements to which the commenter refers and which are mentioned in the quoted preamble statement can be found in 40 CFR 63.9 which addresses notification requirements and 63.5(d) which addresses applications for approval of construction or reconstruction. These requirements from the General Provisions apply to affected sources under part 63 and both sets of requirements apply to affected sources under this rule as described in Table 2 to the final rule.

It is important to note, however, that 40 CFR 63.9(a)(3) does provide that if a State requires a notice that contains all of the information required in a notification under 40 CFR 63.9, then the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements

of 40 CFR 63.9. Copies of such notifications would need to be submitted at the times specified in 40 CFR 63.9.

2.6.2 Consolidation and Timing of Reports

Comment: One commenter (IV-D-2) was concerned with the requirement of §63.4891 of the proposed rule that an affected source that switches compliance options must document the switch and report it in the next semiannual compliance report. The commenter believed that documenting the switch is adequate and that reporting it in the next semiannual compliance report is unnecessary and could be confusing and difficult given that most sources will be submitting semiannual compliance reports on forms provided by the State. These forms are generally required to be used for purposes of semiannual reporting under programs implementing part 70 or part 71 permits, and the forms vary widely from State to State. Most State forms do not contain sections whereby the source is to report some affirmative action which does not result in a deviation. To avoid this conflict between new NESHAP provisions and existing title V programs, the commenter suggested deleting this and any other affirmative statements in the semiannual compliance report as required by the proposed rule.

Response: We disagree with the change suggested by the commenter. In order for the regulatory authority responsible for compliance to evaluate the semiannual compliance report required by §63.4920(a), it is imperative that the compliance methods be reported. Many metal furniture surface coating facilities are very complex with many coating application and cleaning operations, and the final rule allows several different methods of compliance for each of these operations. In order for the regulatory authority to understand how such a facility demonstrated compliance, the compliance options must be known. Moreover, there is no conflict with this requirement and a title V permitting program, as a permitting authority must know what compliance options a source is operating under in order to ascertain whether the source is in compliance with its applicable requirements.

Comment: One commenter (IV-D-2) suggested that the rule clearly state that the title V permitting authority has the authority to set the reporting requirements so as to be consistent with title V

reporting obligations. Specifically, the rule should reflect the ability of the permitting authority to consolidate reporting dates applicable to the facility under the title V permit.

Two commenters (IV-D-2 and 9) believed that, for purposes of reporting requirements, particularly reports of startup, shutdown, and malfunction events under §63.4920(c), the rule should be clarified regarding when reports should be submitted to the State permitting authority versus when reports must be submitted to the EPA. The commenters suggested the reporting of startup, shutdown, and malfunction events be reported consistent with the requirements of the applicable title V permit conditions for “prompt” reporting of deviations. The commenters believed this would make the reporting timeframes consistent with the title V permit and clarify to whom the reports must be sent.

Response: In terms of consolidating reports, 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. See §63.4920(a)(1)(iv) and (a)(2) of the final rule. As a result of the above comments, these two paragraphs have been modified to clarify when monitoring reports are required by part 70 or part 71 (that is, every 6 months) and when a 6-month monitoring report must cross-reference a semiannual compliance report. Moreover, language was added to §63.4920(a)(1)(iv) of the final rule to ensure that a semiannual compliance report is submitted within a reasonable time (30 days) after the end of the semiannual reporting period.

We disagree with the comment that the rule needs to be clarified as to whether reports, particularly reports of startup, shutdown, and malfunction events discussed in §63.4920(c) of the final rule, need to be submitted to a State permitting authority or to EPA. Consistent with 40 CFR 63.12 (which is listed in Table 2 to the final rule) and §63.4980 of the final rule, whether EPA or a State, local, or tribal agency should receive reports required under this rule is determined by the delegation status of the rule. As discussed in §63.4980(a) of the final rule, a source should contact its EPA Regional Office to find out if implementation and enforcement of the final rule has been delegated to its State, local, or tribal agency.

We also disagree with the comment that the rule should be revised so that the reporting of startup, shutdown, and malfunction events is consistent with the requirements of the applicable title V permit conditions for “prompt” reporting of deviations. As stated in 40 CFR 70.6(a)(3)(iii)(B), a

permitting authority is required to define “prompt” in relation to the degree and type of deviation likely to occur and the applicable requirements. Therefore, as required by this provision, applicable requirements, including those found in §63.4920(c) of the final rule and 40 CFR 63.10(d)(5), must be taken into account by a permitting authority when it defines “prompt.” Therefore, it is the responsibility of the part 70 permitting authority to determine whether the reporting requirements found in §63.4920(c) of the final rule and 40 CFR 63.10(d)(5) are sufficient to meet the permitting authority’s requirements for the prompt reporting of deviations. A permitting authority may decide for a particular source or source category, or as a general matter, to impose more stringent reporting requirements (such as type of report, content of report, and/or frequency of submission) than those specified in an applicable requirement. However, the requirements in §63.4920(c) of the final rule and 40 CFR 63.10(d)(5) are applicable requirements and must be met by a source which is subject to this rule regardless of whether they are contained in a title V permit or not.

It is important to emphasize that a permitting authority does not have the authority to change the reporting requirements of this rule (such as type of report, content of report, and/or frequency of submission). Reporting requirements under this rule are applicable requirements and sources must comply with them.

2.6.3 Semiannual Reports

Comment: One commenter (IV-D-02) noted that since semiannual reports will be, for the most part, submitted under a title V permit, the certification requirement for the metal furniture NESHAP should clearly be the same as the certification requirement for the title V program.

This same commenter believed that the affirmative reporting requirement in §63.4920(a)(4) of the proposed rule in which a source is required to report that there were no deviations is unnecessary and will be problematic for those sources which will be filing these semiannual reports in accordance with the requirements of their title V permits due to incompatibility with existing State reporting formats. Moreover, since there is already a requirement under the proposed rule and under title V for sources to promptly report deviations, there does not appear to be any need to make an affirmative statement that there were no deviations. If no deviations are reported, then it is implicit that there were no deviations.

At a minimum, the commenter suggested clarifying §63.4920(a)(4) to read “the semiannual compliance report must include a statement that there were no deviations from these emission limitations.”

Section 63.4942 of the proposed rule contains provisions describing how the affected source must demonstrate compliance with emission limitations. Section 63.4942(c) requires that the semiannual report identify coating operations for which the compliant material option was selected. The provision goes on to require an affirmative statement of compliance with the emission limitation in §63.4890 and that no thinner or cleaning material contained organic HAP. The commenter believed this provision is in conflict with existing State programs and title V semiannual reporting obligations. The requirement to make an affirmative statement regarding compliance should be deleted. Alternatively, the commenter provided language indicating that compliance with the State program for title V reporting constitutes compliance with this reporting obligation.

Response: We agree with the first comment and §63.4920(a)(3)(ii) of the final rule has been revised as follows:

(ii) Statement by a responsible official with that official’s name, title, and signature, certifying the truth, accuracy, and completeness ~~of the content~~ of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 71.5(d).

We made a corresponding change in §63.4910(c)(2) of the final rule:

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness ~~of the content~~ of the report. Such certifications must also comply with the requirements of 40 CFR 70.5(d) or 71.5(d).

The added sentence will ensure that any certification submitted by a source under this rule will also be consistent with the requirements of part 70 or part 71. Additionally, “of the content” was deleted from the first sentence as a responsible official needs to certify that the entire submittal is complete, not just the content of the report.

We disagree with the commenter that the affirmative statements regarding the absence of certain deviations required by §§63.4920(a)(4) and 63.4942(c) should be deleted due to conflicts with

existing title V programs. 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. We have, however, added language to §63.4920(a)(4) of the final rule to clarify what is required in these affirmative statements.

2.6.4 Reporting of Deviations

Comment: Two commenters (IV-D-2 and 9) noted that §63.4920(a)(5)(iv) of the proposed rule requires that the semiannual report contain a “statement of the cause of each deviation.” There is a similar requirement in §63.4920(a)(6)(iii) and in various other areas of the proposed rule. States have specific provisions in their title V programs which require and define “prompt” reporting. Moreover, most State programs have provisions regarding not only the timing of reports of deviations, but also the contents of such reports. In some cases, the initial reports of deviations must be submitted so quickly that the actual cause of the deviation may not be known with certainty. Rather than set up a conflict between existing State requirements and the proposed rule, the commenters recommended modifying the requirement of reporting the cause of the deviation to reporting the “suspected” cause. Not only would this eliminate conflicts between the proposed rule and various State reporting requirements, but it is also consistent with title V in that the stationary source has an obligation to supplement reports with material additional information.

Section 63.4963(b) of the proposed rule (renumbered as §63.4962(b) in the final rule) requires deviation reports to be submitted in accordance with §§63.4910(c)(6) and 63.4920(a)(7). Again, for purposes of consistency with existing title V programs, the commenters suggested amending that requirement to provide that, for sources with title V permits, deviation reports must comply with the reporting provisions of that permit. For sources which do not yet have a title V permit, deviation reports should be submitted as required by the proposed rule. Section 63.4963(f) of the proposed rule (renumbered as §63.4962(f) in the final rule) contains similar provisions for affected sources choosing the add-on controls option. The commenters suggested that the reporting requirements of State

programs and title V are controlling and that compliance with those obligations is sufficient even if they only require deviation reporting and do not require affirmative statements of compliance.

Response: We do not believe that changes to the rule are needed to require sources to report the “suspected cause” for each deviation versus the “cause” for each deviation. Reporting based on the best information that is available at the time is all that is required whether the rule refers to the “cause” or the “suspected cause” for a deviation. Moreover, certifications of truth, accuracy, and completeness under 40 CFR 70.5(d) and 71.5(d) are to be based on information and belief formed after reasonable inquiry. Therefore, there is no conflict between this rule and State title V programs. We agree with the commenter, however, that new information regarding the cause of a deviation must be reported to a permitting authority when it becomes known.

In terms of the submittal of deviation reports, the final rule establishes the reporting requirements that must be met by subject affected sources. These provisions are not superseded by the requirements of a title V program. As a result, no changes have been made to the rule as a result of this comment. Moreover, as mentioned earlier in this response to comments document, a permitting authority does not have the authority to change the reporting requirements of this rule. Reporting requirements under this rule are applicable requirements and sources must comply with them.

2.7 MISCELLANEOUS COMMENTS

Comment: Two commenters (IV-D-2 and 9) believed that some metal furniture manufacturers may need to install add-on control equipment to comply with the emission limitations set forth in the proposed rule. Based on the regulatory trigger for the Prevention of Significant Deterioration (PSD) rules, the installation of the control equipment could be deemed to trigger New Source Review (NSR).

Under the PSD program, if the source undergoes “any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act,” then that could be considered a “major modification” under 40 CFR 52.21(b)(2)(i). If the add-on control in this case would constitute a physical change or change in the method of operation, then the company would have to evaluate

whether or not there was “a significant net emissions increase of any pollutant” subject to regulation under the PSD program, such as VOC.

The commenters stated that this situation, combined with EPA’s interpretation of the CAA to allow evaluating “significant net emissions increase” by comparing future potential emissions (that is, permitted levels) to actual emissions, unnecessarily discourages the use of add-on control equipment. Therefore, the final rule should specifically exempt add-on control equipment, which is installed for purposes of complying with the final rule, from NSR and PSD requirements.

Response: We agree that some sources may choose to install add-on control devices to achieve compliance with the emission limits. Some of these add-on control devices, such as an oxidizer, can generate emissions of pollutants that may trigger the need for preconstruction permits under the nonattainment new source review (NSR) or prevention of significant deterioration (PSD) program (referred to as “major NSR”).

In 1992, we adopted an explicit pollution control project (PCP) exclusion for electric utility steam generating units (see 57 FR 32314). In a July 1, 1994 guidance memorandum,⁵ we provided guidance to permitting authorities on the approvability of PCP exclusions for source categories other than electric utilities. In that guidance, we indicated that add-on controls and fuel switches to less polluting fuels may qualify for an exclusion from major NSR as a PCP. To be eligible to be excluded from otherwise applicable major NSR requirements, a PCP must, on balance, be “environmentally beneficial,” and the permitting authority must ensure that the project will not cause or contribute to a violation of the NAAQS or PSD increment, or adversely affect visibility or other air quality related values (AQRV) in a Class I area. The permitting authority must additionally ensure that offsetting reductions are secured in the case of a project that would result in a significant increase in a nonattainment pollutant. The permitting authority can make these determinations outside of the major NSR process.

⁵ Memorandum from Seitz, John, U.S. EPA, July 1, 1994. Pollution Control Projects and New Source Review (NSR) Applicability. Available at www.epa.gov/ttn/nsr/poly_gui.html.

The 1994 guidance did not supersede existing NSR requirements, including approved State NSR programs, nor void or create an exclusion from any applicable minor source preconstruction review requirements in an approved State implementation plan (SIP). Any minor NSR permitting requirements in a SIP would continue to apply, regardless of any exclusion from major NSR that might be approved for a source under the PCP exclusion policy.

We believe the current guidance on the PCP exclusion adequately provides for the possible exemption from major NSR for PCP resulting from the final rule. Permitting authorities should follow that guidance to the extent allowed under the applicable SIP in order to determine whether the installation of an add-on control device in a given circumstance qualifies as a PCP. Projects that qualify for the exclusion would be covered under minor source regulations in the applicable SIP, and permitting authorities would be expected to provide adequate safeguards against NAAQS and increment violations and adverse impacts on AQRV in Class I areas. Only in those areas where potential adverse impacts cannot be resolved through the minor NSR programs or other mechanisms would major NSR apply.

Comment: Two commenters (IV-D-2 and 9) said that according to recent presentations made by the EPA, there appears to be some discussion regarding using risk analysis up-front in some of the MACT standards. This may be done through section 112(d)(4) of the CAA or possibly through the use of delegation to some States with mature risk-based programs. If such provisions are provided for in other MACT rules, the commenter requested that they be considered for the proposed rule as well.

Response: Section 112(d) of the CAA, under which MACT standards are developed, directs us to base MACT on what is technologically achievable considering cost, energy, and non-air quality health and environmental impacts. Air quality health impacts are not included in this list of considerations for determining the technology-based MACT level of control. In some cases, we evaluate the health risk impact of levels of control more stringent than the MACT floor to help determine if requiring such levels is warranted. At this time, we are not considering implementing a risk-based analysis for alternatives to the technology-based standards in the proposed rule.

Comment: One commenter (IV-D-2) noted that the preamble at page 20209 listed the emission limit for new sources as 0.094 kilograms organic HAP per liter of coating solids used. However, the limit for existing sources is listed in the preamble as 0.12 kilograms organic HAP/liter used. It should be clarified that the existing source limit should be described as 0.12 kilograms organic HAP/liter of *coating solids* used. A similar correction should be made to the lb/gal unit contained in the parentheses following the metric units. The correction should state: 1.0 lb/gal of coating solids used.

Response: We thank the commenter for their attention to detail. While there was some ambiguity in the text of the preamble, the correct units were used in text of the proposed rule (see §63.4890 of the proposed rule).

Comment: Two commenters (IV-D-2 and 9) believed that the EPA has greatly underestimated the costs of implementing this standard as proposed. For example, the statement on page 20218 of the preamble to the proposed rule that there will be no incremental costs associated with the use of lower organic HAP content coatings and thinners is incorrect. Moreover, EPA states that there will be zero cost associated with implementing this standard. This too is inaccurate. This standard represents a stringent new level of control for new and existing sources. The cost of complying with these emission limitations and other requirements will be commensurate with the stringency of the standard, and is clearly not zero.

Response: The issue of the cost of coatings had been raised during the development of the proposed rule. On several occasions we asked the metal furniture surface coating industry, including the two commenters, for the relative cost difference between typical liquid coatings currently used by the industry and lower organic HAP content alternatives. It was our intent to take this cost differential into account in the cost analysis. Despite our repeated attempts, no cost data were forthcoming. Even now, these commenters provided no basis for their statement that a higher incremental cost would be associated with the use of lower organic HAP content coatings. Based on this, we concluded that generally there was no difference in cost between these two types of coatings and reflected this in our cost estimates.

We disagree with the commenters' statement that we indicated there would be no cost associated with implementing the standard. At the same reference to the preamble to the proposed rule that the commenters cited, we summarized the cost we estimated that individual facilities would likely incur, as well as an extrapolation of these values to nationwide levels. These cost estimates took into account the incremental cost of changing to non-HAP cleaning materials as well as the monitoring, recordkeeping, and reporting costs. As indicated in the preamble to the proposed rule, these costs were obviously not zero as indicated by the commenters.

Comment: One commenter (IV-D-02) suggested that the definitions in §63.4981 of the proposed rule should be clarified by specifying that the term "Administrator" means the Administrator of the EPA, as represented by the appropriate Regional Office, or a State or local agency which has been delegated authority of the NESHAP program (or at least this NESHAP rule). Alternatively, the EPA could revise the rule so as to clarify that all reports must be consistent with the requirements of title V, which would clarify both timing of the reports and to whom the reports would be sent.

Response: The meaning of "Administrator" is given in §63.2 of the General Provisions. The definitions in the General Provisions were referenced in the proposed rule (see §63.4981).

Comment: One commenter (IV-D-6) noted that in the preamble to the proposed rule on page 20211, the operating limits for each capture system that is not a permanent total enclosure is described as including both the volumetric flow rate and pressure drop. Paragraph 63.4967(e) of the proposed rule (renumbered as §63.4966(e) in the final rule) states that the operating limit is either the gas volumetric flow rate or duct static pressure. The language in Item 6 of Table 1 to the final rule reinforces this comment. The commenter requested that the preamble be corrected.

Response: We appreciate the commenter's attention to detail. The preamble to the proposed rule incorrectly states that both the volumetric flow rate and the pressure drop must be established as operating limits for these capture systems. However, the proposed rule correctly states that either parameter may be used, and this has been retained in the final rule.

Comment: One commenter (IV-D-6) noted that item 6 of Table 1 to the final rule incorrectly identifies in the "For the following device" column "emission capture system that is a PTE according to §63.4965(a)." A review of the requirement at §63.4967(e) of the proposed rule indicates that the device is actually an "emission capture system that is not a PTE according to §63.4965(a)." Table 1 should be corrected.

Response: We appreciate the commenter's attention to detail. The commenter is correct that the word "not" was inadvertently omitted from this entry. We made the correction in the final rule. (Note that §§63.4965 and 63.4967 were renumbered as §§63.4964 and 63.4966, respectively, in the final rule).

Comment: One commenter (IV-D-6) noted that paragraph 63.4930(c)(2) of the proposed rule uses the abbreviation H_c to represent the calculated values of the organic HAP content for each coating and §63.4930(c)(3)(iii) uses the abbreviation HC to represent the value of the mass of HAP emissions reduction by the emission capture system. The commenter believes this could be confusing (see Equation 1 of §63.4961 and the nomenclature following, where both a capital "C" and a lower case "c" are used as subscripts). A different abbreviation needs to be used for one of these terms. The commenter also suggested that in §63.4962(c)(1), the abbreviation, HHAP, should be written H_{hap}. and in §63.4962(c)(2)(i), the abbreviation HC should be written H_c.

Response: We agree with this commenter that H_c was inappropriately used as a variable representing two different values. In the final rule, we changed H_c in Equation 1 of §63.4961 of the final rule to H_r, and changed the references to this variable to H_r elsewhere in the final rule. In response to the commenter's other suggestions, we thoroughly reviewed the proposed rule for typographical errors and made corrections as appropriate.

Comment: One commenter (IV-D-6) noted that the emission standards for the proposed rule in §63.4890 are in metric units with the English equivalent in parentheses. However, the compliance calculation equations in §§63.4941, 63.4951, and 63.4961 only specify metric units. This incongruence could be interpreted by the affected facility as a requirement to keep all records in only metric units.

This potential problem may be alleviated by adding a paragraph (d) to §63.4931 allowing records to be maintained in either English or metric units, as long as the facility is consistent in their recordkeeping approach.

Response: Calculations and recordkeeping may be performed in either metric or English units so long as the appropriate emission limits in metric units are met. No rule change is needed.

Comment: One commenter (IV-D-6) mentioned that §§63.4968(a)(5) and (6) of the proposed rule use the term "associated repairs" but do not define if the association is with repairs for the capture and control system, or the process equipment.

Response: We agree that the language of the proposed rule does not clearly state our intent. In the final rule, paragraph (a)(5) of this section (which has been renumbered as §63.4967), has been revised as follows, and a similar change was made to paragraph (a)(6):

. . . except during monitoring malfunctions, ~~associated repairs to correct the monitor~~
malfunctions, and required quality assurance or control activities . . .

Comment: One commenter (IV-D-6) stated that §§63.4968(c)(3)(ii), 63.4968(d)(2), 63.4968(e)(1), and 63.4968(f)(2)(iv) of the proposed rule use the term "sensitivity" to describe the monitoring device's minimum ability to discriminate between two input signals. Paragraph 63.4968(g)(2)(iii) uses the term "tolerance" to define the same instrument characteristic. The term "tolerance" is not appropriate unless it is used to refer to the maximum or minimum monitored value that will not cause damage to the monitoring device.

Response: We agree with the commenter that the terminology was not used appropriately. We did not mean to differentiate between the two terms. Rather than use two different terms for these measurements, we have decided to replace both terms with the single term "accuracy" and include both a numerical and percentage component. This section (which has been renumbered as §63.4967 in the final rule) has been modified to accommodate this change.

Comment: One commenter (IV-D-6) noted that §63.4968(g)(2)(iii) of the proposed rule implies that there are two different standards, one for mechanical devices (gauge) and one for electronic devices (transducers). Previous references to monitoring device sensitivity in §§63.4968(c)(3)(ii), 63.4968(d)(2), 63.4968(e)(1), and 63.4968(f)(2)(iv) use a numeric sensitivity and a sensitivity in terms of a percentage of the recorded parameter. It is unclear if the EPA is proposing a different "sensitivity" standard for mechanical and electronic devices.

Response: While we recognize differences between and among monitoring approaches, we did not mean to propose separate standards in this instance. Upon consideration of our approach, we have decided to replace the term "tolerance" with the term "accuracy" (see the previous comment response) and include both a numerical and percentage component. This section (which has been renumbered as §63.4967 in the final rule) has been modified to accommodate this change.

Comment: Two commenters (IV-D-2 and 9) noted that the preamble to the proposed rule requested "comments on how monitoring, recordkeeping, and reporting requirements can be consolidated for sources that are subject to more than one rule." The commenter believed this poses a particularly tricky problem because the same stationary source could be subject to the wood furniture NESHAP, the metal furniture NSPS, and individual State permit emission limits (such as RACT, BACT, and LAER limits), all of which have different units of compliance and different sources which must be included. The most efficient way to consolidate monitoring, recordkeeping, and reporting requirements is to eliminate the need to comply with multiple standards.

Response: As we discussed in Section 2.2.1 of this document, we considered allowing you to comply with only the most stringent surface coating rule applicable to an affected source. However, due to practical considerations related to implementing such a compliance option, we have not included the option in the final rule at this time. You will be required to comply with all requirements of each rule applicable to your facility.

Comment: One commenter (IV-D-2) noted that §63.4920(a)(5)(i) of the proposed rule requires that, for purposes of reporting deviations on semiannual compliance reports, the identification

of “each thinner and cleaning material used that contained organic HAP” is required. Since the commenter believed that the requirement that all thinners and cleaners contain no organic HAP should be stricken, they believe that this corresponding reporting requirement be deleted as well.

Response: As we responded to a related comment in Section 2.4.1 of this document, this commenter misunderstood the use of the compliant material option. Therefore, this reporting requirement is necessary and has been retained in the final rule.

TECHNICAL REPORT DATA

(Please read Instructions on reverse before completing)

1. REPORT NO. EPA-453/R-03-002	2.	3. RECIPIENT'S ACCESSION NO.
4. TITLE AND SUBTITLE National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Furniture – Summary of Public Comments and Responses on Proposed Rule		5. REPORT DATE January 2003
		6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S)		8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Environmental Protection Agency Office of Air Quality Planning and Standards Coatings and Consumer Products Group (C539-03) Research Triangle Park, NC 27711		10. PROGRAM ELEMENT NO.
		11. CONTRACT/GRANT NO. 68D01055
12. SPONSORING AGENCY NAME AND ADDRESS Office of Air Quality Planning and Standards U.S. Environmental Protection Agency Research Triangle Park, NC 27711		13. TYPE OF REPORT AND PERIOD COVERED
		14. SPONSORING AGENCY CODE EPA/200/04
15. SUPPLEMENTARY NOTES		
16. ABSTRACT This document contains a summary of public comments and responses on the proposed NESHAP for Surface Coating of Metal Furniture (40 CFR 63, subpart RRRR), proposed on April 24, 2002 (67 FR 20206). This document also provides the EPA's response to each comment, and outlines the changes made to the regulation in response to public comments.		
17. KEY WORDS AND DOCUMENT ANALYSIS		
a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air Pollution Hazardous Air Pollutants Metal Furniture Surface Coating	Hazardous Air Pollutants	
18. DISTRIBUTION STATEMENT Release Unlimited	19. SECURITY CLASS (<i>Report</i>) Unclassified	21. NO. OF PAGES 68
	20. SECURITY CLASS (<i>Page</i>) Unclassified	22. PRICE

United States
Environmental Protection
Agency

Office of Air Quality Planning and Standards
Air Quality Strategies and Standards Division
Research Triangle Park, NC

Publication No. EPA-45X/R-02-XXX
October 2002
