



# National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Category: Paper and Other Web Coating

Summary of Public Comments and Responses on  
Proposed Rule

EPA-453/R-02-005  
November 2002

**National Emission Standards for  
Hazardous Air Pollutants (NESHAP)  
for Source Category:  
Paper and Other Web Coating**

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

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## **1.0 SUMMARY**

### **1.1 BACKGROUND**

On September 13, 2000 (65 FR 55332), the EPA proposed the “National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating” (40 CFR part 63, subpart JJJ) 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 individuals. A total of 28 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. Because the majority of comments received were directed to specific sections of the proposed rule, the summaries and responses to the comments are organized not by topical categories but by the sections of the proposed rule. We believe this is the most understandable and efficient means of addressing the comments.

Many of the comments received were addressed specifically to the language we used in the proposal preamble. We appreciate these comments and fully considered each of them in developing the final rule. These preamble comments have been woven into the comments made on the specific sections of the proposed rule to which they referred. We considered this the most beneficial way to respond to comments directed at the proposal preamble since the proposal preamble itself will not be revised.

TABLE 1-1. LIST OF COMMENTERS ON THE PROPOSED NATIONAL EMISSION STANDARDS FOR PAPER AND OTHER WEB COATING

Air Docket Number	Docket Item Number	Commenter and Affiliation	Date of Letter
A-99-09	IV-D-01	A. McMahon. General Electric Company	11-20-00
A-99-09	IV-D-02	M. Mathisen. Norton Company	11-03-00
A-99-09	IV-D-03	G.R. Anderson. Pressure Sensitive Tape Council	11-09-00
A-99-09	IV-D-04	B.S. Forcade. Law Offices of Jenner & Block (on behalf of Pactiv Corporation)	11-21-00
A-99-09	IV-D-05	M.E. Hawes. Shurtape Technologies. Incorporated	11-10-00
A-99-09	IV-D-06	M.T. Kinter. Screenprinting and Graphic Imaging Association International	11-13-00
A-99-09	IV-D-07	D. Darling. National Paint and Coatings Association	11-13-00
A-99-09	IV-D-08	P.F. Narog. 3M Environmental Technology and Services	11-10-00
A-99-09	IV-D-09	P.F. Narog. 3M Environmental Technology and Services	11-22-00
A-99-09	IV-D-10	A. Ross. Radtech International North America	10-30-00
A-99-09	IV-D-11	M.S. Nichols. Reynolds Metals Company	11-10-00
A-99-09	IV-D-12	D.C. Foerter. Institute of Clean Air Companies	11-10-00
A-99-09	IV-D-13	T.P. Feldman. National Electrical Manufacturers' Association	11-13-00
A-99-09	IV-D-14	B.M. Higgins. State and Territorial Air Pollution Program Administrators R.H. Colby. Association of Local Air Pollution Control Officials	11-13-00
A-99-09	IV-D-15	D.W. Wiegand. Resilient Floor Covering Institute	11-13-00
A-99-09	IV-D-16	K.D. Woodrow. Morgan, Lewis & Bockius. LLP (on behalf of Intertape Polymer Group. Incorporated)	11-13-00
A-99-09	IV-D-17	e-mail comment from <a href="mailto:royetta@aol.com">royetta@aol.com</a>	11-11-00
A-99-09	IV-D-18	R.L. Wright. Ashland Incorporated	11-10-00
A-99-09	IV-D-19	R. Putnam. Intertape Polymer Group	11-13-00
A-99-09	IV-D-20	T.G. Hunt. American Forest & Paper Association	11-13-00
A-99-09	IV-D-21	G. Rountree. Flexible Packaging Association	11-13-00
A-99-09	IV-D-22	N.L. Morrow. ExxonMobil Chemical Company	11-10-00
A-99-09	IV-D-23	H. Bohanon. R.J. Reynolds Tobacco Company	11-10-00
A-99-09	IV-D-24	G. Moeller. Eastman Kodak Company	11-10-00

Air Docket Number	Docket Item Number	Commenter and Affiliation	Date of Letter
A-99-09	IV-D-25	W.D. Hayes, Vorys, Sater, Seymour, and Pease LLP	11-09-00
A-99-09	IV-D-26	S.M. Young, Chemical Fabric & Film Association, Incorporated	11-08-00
A-99-09	IV-D-27	A.E. Stinchfield, Fort James Corporation	11-10-00
A-99-09	IV-D-28	S.J. Brown, International Paper Company	11-10-00

## 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.

### **Applicability**

Several comments were received on the potential applicability overlap between the proposed rule and other coating standards. To clarify the applicability of the rule we made several changes to §63.3300, "Which of my emission sources are affected?" and §63.3310, "What definitions are used in this subpart?". The affected source section has been revised to exclude web coating lines subject to the magnetic tape manufacturing rule (40 CFR part 63, subpart EE) and the printing and publishing rule (40 CFR part 63, subpart KK) from the requirements of this subpart. The affected source section has also been revised to exclude web coating lines that are an affected source under the national emission standards for hazardous air pollutants for metal coil surface coating operations currently under development from the requirements of the final rule. The final rule has been revised to exclude web coating lines engaged in the coating of both fabric and other webs on the same fabric coating line and that are an affected source under the national emission standards for hazardous air pollutants for fabric printing, coating and dyeing operations currently under development, from the requirements of the rule. Finally, the rule has been revised to clarify that certain web coating lines engaged in fabric coating for use in pressure sensitive tape, and abrasive materials are part of this source

category. While most of these products are commonly produced using a paper web, product applications that require higher performance or unique characteristics may necessitate the use of a fabric web. The coating equipment, the coating solutions and the emissions are essentially the same, whether the coated web is fabric or paper. Therefore, we are regulating these web coating processes under this final rule.

### **New Source Emission Limit**

We received a comment expressing doubt that new sources could consistently achieve 98 percent control efficiency using an oxidizer. The commenter stated that the data we used to develop the new source emission limit was based on short-term performance tests. Over the long term, according to the commenter, oxidizer performance can vary due to coating process variabilities. The commenter requested that we adopt the existing source control efficiency requirement of 95 percent for new sources. While the commenter did not explain what was meant by “coating process variabilities,” we assumed that this was a reference to fluctuating organic HAP inlet concentrations during periods of reduced coating application. We recognize that oxidizer performance may decrease when the inlet concentration decreases. While we believe the 98 percent organic HAP overall control efficiency for new sources is achievable based on information provided by the paper and other web coating industry, we added an alternative emission limit based on outlet organic HAP concentration that should account for any variable or low inlet concentrations. The MACT floor analysis for this rule determined that the emission control of the best controlled source in this category was 98 percent. Therefore, we have retained the 98 percent overall control of organic HAP emissions for new affected sources. As stated in the preamble to the proposed rule (65 FR 55339), although some facilities reported more than 98 percent overall control of organic HAP emissions, this higher level of control may not be achievable on a continuous basis under all normal operating conditions applicable to new sources. In order to provide additional flexibility and ensure consistency with other coating-related NESHAP in development, we added an alternate emission limit based on outlet organic HAP concentration. Owners or operators of both existing and new affected sources using a thermal oxidizer to control organic HAP emissions may choose to operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) is

achieved, as long as 100 percent capture efficiency is achieved.

The 20 ppmv by compound organic HAP limit is based on previous EPA studies of available oxidizer technology, cost, and energy use. The dual requirement of meeting a minimum control efficiency value or a 20 ppmv by compound limit accounts for a fall-off of oxidizer efficiency at lower inlet concentrations. For example, if an inlet concentration is only 200 ppmv, even if an outlet concentration of 20 ppmv is achieved, the control efficiency is only 90 percent. This is less than the existing source limit of 95 percent and the new source limit of 98 percent. We recognize this problem for oxidizers with low inlet concentrations and, consequently, have included the alternate 20 ppmv by compound organic HAP emission limit.

Previous EPA studies have shown that new oxidizers can achieve the 20 ppmv by compound emission limit even when the inlet organic HAP concentration is low. We believe that most existing oxidizers could also reach the emission limit with moderate adjustments. The combustion temperature and residence time used in the previous EPA studies to achieve the 20 ppmv by compound emission limit (870°C (1600°F) and 0.75 seconds) are typical of the necessary operating conditions. We believe these operating conditions are achievable by both new and existing sources.

### **Solvent Retained in the Web or Otherwise Not Emitted to the Atmosphere**

We added paragraph 63.3360(f) to the performance testing section of the final rule to allow a source to take into account the mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere and require the source to develop a testing protocol for determining the mass of volatile matter retained or otherwise not emitted. In conjunction with this new paragraph, we revised Equations 4, 5, 6, 7, 8, 12, 14, and 15 of § 63.3370 of the final rule by adding a term ( $M_{\text{vret}}$ ) to account for the volatile matter not emitted from the coating operation. This term may be used to account for reactive coatings, volatile matter chemically bound in the dried coating, intentionally incomplete curing, or other situations.

### **Monitoring**

The temperature monitor requirements for oxidizers no longer require monthly inspection

of the electrical connections of the temperature monitoring system for oxidizers. If you use a control device other than an oxidizer, then a provision has been added to the final rule that would require you to develop a site-specific monitoring plan with minimum requirements for each control device.

We clarified the minimum data availability requirements for calculating valid hourly values from continuous monitoring system data, as well as for calculating the 3-hour averages.

As an alternative to monitoring the inlet temperature and temperature rise across the catalyst bed of a catalytic oxidizer to demonstrate continuous compliance, the final rule includes a provision that allows you to monitor the temperature at the inlet to the catalyst bed and the catalyst activity level. This provision would require a site-specific monitoring plan that would have to be submitted for approval.

## 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 COMMENTS ON THE PROPOSED RULE

#### § 63.3280 What is in this subpart?

Comment: One commenter (IV-D-21) requested that the term “organic HAP” be used consistently throughout the rule rather than just “HAP” to avoid confusion.

Response: We agree that such clarity would be beneficial. In those instances where we mean organic HAP, such terminology has been used.

#### § 63.3290 Does this subpart apply to me?

Comment: Two commenters (IV-D-03 and 05) requested clarification that a facility can take a synthetic minor permit limit to ensure they are not a major source.

Response: A facility may limit their potential HAP emissions to below major source thresholds. However, in order to be considered a synthetic minor source for HAP emissions for the purposes of the final rule, the permit limitation must be federally enforceable, and it must be in place before the compliance date of the final rule.

Comment: One commenter (IV-D-04) requested a minimal exclusion level for operations with low organic HAP emissions and suggested 2 tons per year for any one organic HAP from all lines at the facility, or less than 5 tons per year (tpy) for all organic HAP from all web coating lines at a facility regardless of the quantity of other HAP emissions at the facility. The commenter’s primary operations are not printing or coating operations and generally are

incidental to their manufacturing processes. According to the commenter, these types of operations at many of the commenter's facilities apply a solids-containing material to a flexible substrate somewhere in the manufacturing process, and nearly all of those operations emit either no organic HAP or immeasurably small levels of organic HAP (that is, much less than 1 tpy and probably less than 100 pounds per year).

Response: Section 63.3370(b) of the final rule specifies the compliance demonstration requirements for the situation described by this commenter. When all coatings used by the source contain no organic HAP (or more generally, contain organic HAP at less than the limits specified in § 63.3320(b) of the final rule), the source must demonstrate that the organic HAP concentration of each coating is below the limits in § 63.3320(b). This can be accomplished either by testing each material using Method 311, or by obtaining formulation data from the manufacturer of the material (see § 63.3360(c) of the final rule). We believe these requirements are the minimum necessary to demonstrate compliance and as such are not overly burdensome. Thus, we did not make any changes to the final rule in response to these comments.

Comment: Several commenters (IV-D-03, 05, 06, 08, and 09) requested that the final rule either clarify that the paper and other web coating source category does not include other printing processes that were excluded from the printing and publishing rule (40 CFR part 63, subpart KK), such as lithography, screen printing, letterpress, and narrow-web flexography, or provide an exemption for these operations.

Response: The paper and other web coating source category does not include printing processes such as lithography, screen printing, letterpress, and narrow-web flexography. The printing and publishing rule (40 CFR part 63, subpart KK) would have regulated these types of printing operations but because they use very low organic HAP, low VOC inks, and very little data were available regarding the extent of emissions from these sources and applicable control techniques, these operations do not have any requirements under subpart KK. Therefore, the affected source section in the final rule has been changed to reflect that these sources are not part of the paper and other web coating source category.

### **§ 63.3300 Which of my emission sources are affected?**

Comment: One commenter (IV-D-01) felt that the EPA should reduce the requirements for web coating lines that do not use organic HAP, adding that none of the proposed emission limits or other requirements serves any environmental purpose when imposed on a web coating line that does not use any organic HAP. The commenter requested that a reduced set of requirements be added to the proposed rule for such web coating lines.

Another commenter (IV-D-20) stated that equipment such as sizing presses that add starch, clay, calcium carbonate and other additives to enhance the properties of the substrate are within the scope of the proposed rule as written, but should be subject to no controls in both new and existing sources because of their insignificant HAP emissions.

Response: Section 63.3370(b) of the final rule specifies the compliance demonstration requirements for the situation described by these commenters. When all coatings used by the source contain no organic HAP (or more generally, contain organic HAP at less than the limits specified in § 63.3320(b) of the final rule), the source must demonstrate that the organic HAP concentration of each coating is below the limits in § 63.3320(b). This can be accomplished either by testing each material using Method 311, or by obtaining formulation data from the manufacturer of the material (see § 63.3360(c) of the final rule). We believe these requirements are the minimum necessary to demonstrate compliance and as such are not overly burdensome. Thus, we did not make any changes to the final rule in response to these comments.

Comment: One commenter (IV-D-24) proposed adding clarifying language to the affected source description in § 63.3300 that they believed preserves the boundary of the affected source (i.e., the collection of web coating lines) but left room for the inclusion of other related sources even if they are not subject to any requirements. In addition, the commenter requested that the EPA clarify that sources other than web coating lines were evaluated and found to have a MACT floor of no control.

Another commenter (IV-D-13) suggested that the EPA specifically add ancillary operations into the definition of affected source under § 63.3300.

Several commenters (IV-D-01, 03, 04, 05, 07, 08, 13, 18, 20, 24, and 28) believed that it was the EPA's intention to include ancillary operations in the proposed rule, but not establish any requirements (due to the minor level of emissions relative to the coating lines, the limited

information collected on such sources during the initial survey, and the general lack of control of such sources currently in the industry). The commenters urged the EPA to clarify this in the final rule. The commenters asked that ancillary operations be included in the definition of web coating line, and the final rule should clearly state that there are no emission limits for these operations.

Several commenters (VI-D-03, 05, 07, 08, 13, 20, 24, 28) also expressed concern that in the absence of clear direction to the contrary from the EPA, ancillary operations could potentially be interpreted as being subject to other rules such as the anticipated Miscellaneous Organic NESHAP (MON). They urged the EPA to develop specific language in the final rule stating that ancillary operations are included in the paper and other web coating source category and are therefore exempt from coverage by other rules including the MON. Two commenters (IV-D-13 and 20) added that compliance officials, or others, could potentially construe ancillary operations to be covered by other rules unless there is a clear statement that they are covered under the paper and other web coating source category. One commenter (IV-D-24) suggested the EPA use the magnetic tape manufacturing rule (40 CFR part 63, subpart EE) as a model for the language needed to exclude ancillary operations from coverage by other rules.

Response: The proposed Miscellaneous Organic Chemical Manufacturing (MOCM) NESHAP and the Miscellaneous Coating Manufacturing (MCM) NESHAP 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 rule. However at this time, the requirements of the future MOCM NESHAP and the MCM NESHAP will not apply to ancillary operations (from here after referred to as affiliated operations) located at an affected source under the paper and other web coating NESHAP. Language will be added to both of these rules to clarify their applicability.

We do not agree that affiliated operations should be included in the affected source. Affiliated operations such as mixing or dissolving of coating ingredients prior to application;

coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater are part of the paper and other web surface coating source category. The final distinction between these affiliated operations and other activities that go beyond the affiliated operations described above will be resolved in the context of the MOCM or the MCM NESHAP. In response to these comments, review of the industry survey data reflected that only a small portion of the surveyed facilities reported any data concerning affiliated operations, and only some of these facilities reported that HAP emissions from affiliated operations were controlled. For facilities that reported control of HAP emissions from these sources, the data were not sufficiently detailed to determine if the reported control represented the facility level of control or the control for one unit operation of this type out of several in the facility. For example, mixing may be performed in a mix room and at the application station. It was not clear from the reported data if a facility reporting capture and control of emissions from mixing operations conducted all mixing at controlled application stations or possibly just a single mix room was controlled. When these operations occur inside a permanent total enclosure, emission reductions can be achieved at the overall control efficiency of the capture and control system. We were not able to identify emission reductions for affiliated operations with the available data. Since we were not able to identify emission reductions for affiliated operations, we believe it is not appropriate at this time to include them in the affected source in the final rule.

Comment: One commenter (IV-D-26) noted that while the preamble addressed the applicability of the rule to activities such as film formation, the proposed rule did not. The commenter requested that the EPA include language to clarify applicability in the final rule.

One commenter (IV-D-20) stated that it should be made explicit that the head box on a papermaking machine and other equipment in line prior to the actual consolidation and formation of a continuous web of paper are not subject to the proposed rule.

Another commenter (IV-D-27) expressed the belief that the proposed rule should focus on the coating of substrates, and not on the formation of the substrate itself. The commenter discussed how in both wet and dry paper-making systems the substrate is actually formed on the

machine rather than being fed in a pre-established form onto a coating line. The commenter noted that nowhere in the proposed rule or background information document is it suggested that the proposed rule would apply to paper-making systems and requested that the EPA make it clear that the rule does not apply to paper-making operations.

Another comment was received asking the EPA to clarify that certain incidental activities are not included in the paper and other web coating source category. The commenter (IV-D-23) stated that the activities fall into three categories: securing a container or package for shipping or selling (such as gluing a box closed), securing material that is an integral part of the product (such as gluing parts together), and application of a material that is not a covering, finish, or protective layer to a web (such as flavoring applied to paper).

Response: As discussed in the previous comment response, we agree that the affected source should have been more explicitly defined with respect to substrate formation or film formation. Our intent was stated in the preamble at 65 FR 55334: “We are not proposing requirements for operations related to coating line and parts cleaning, coating mixing and storage, film formation, and wastewater.” The definition for coating material states that materials used to form a substrate are not considered coating materials, and therefore, are not part of the affected source.

In response to the comment concerning gluing boxes closed or gluing parts together, we believe that the definition of a web coating line in the final rule adequately excludes such operations. A web coating line is defined as “any number of work stations, of which one or more applies a continuous layer of coating material across the entire width or any portion of a web substrate.....” The operations described by the commenter do not meet this definition; thus, they would not be an affected source.

The operation of applying a flavoring to paper would have to be evaluated according to the definition of coating material and web coating line in the final rule. The definition of web coating line is given in the previous paragraph. Coating material is defined as “all inks, varnishes, adhesives, primers, solvents, reducers, and other coating materials applied to a substrate via a web coating line.” No reference is made to “covering, finish, or protective layer” as the commenter states. Therefore, if the flavoring meets the definition of coating material, the means of applying the flavoring to the paper meets the definition of web coating line, and all

other applicability requirements stated in the final rule are met, then the operation would be part of the affected source.

Comment: One commenter (IV-D-02) pointed out that their facility has equipment that coats cloth only and equipment that coats cloth and paper and simultaneously uses flexographic printing on the reverse side. They believed that the equipment capable of coating paper and cloth would be included in the paper and other web source category, but the cloth-only units would be covered by the future fabric coating rule. The commenter questioned the need to have two or more rules apply to essentially the same source or activity.

Two commenters (IV-D-03 and 05) pointed out that the preamble states fabric coating sources may, in some instances, be covered by the proposed rule. However, the proposed rule appears to indicate that no fabric coating is covered (the definition of web specifically excludes fabric). The commenters requested that the final rule provide the facility the option to include fabric coating.

Another commenter (IV-D-26) expressed concern about the potential for confusion as to which rule would apply where multiple operations are conducted within the same facility and in many cases on the same production line. The commenter encouraged the EPA to increase its efforts to allow facilities in this and other rules to make an election to include all related activities under one rule.

Response: Many industrial facilities perform both coating and printing operations. Within the printing industry, the product and packaging rotogravure and wide-web flexographic industry segment (that includes the flexible packaging industry as a major subsector) does the most coating, with material use distributed almost equally between inks and other types of coatings. Printing operations are covered under the NESHAP for the printing and publishing industry. The printing and publishing standards also include an option for facilities that perform both printing and coating to include certain coating operations as affected sources subject to that rule. Therefore, many facilities that could potentially be subject to the paper and other web coating NESHAP may have coating lines already subject to the printing and publishing NESHAP. Such web coating lines included in compliance demonstrations under the printing and publishing NESHAP are not subject to these standards. Section 63.3300 has been revised to

clarify which web coatings lines are considered part of the affected source for the final rule and which web coating lines are not part of the affected source for this final rule.

Our intent with respect to web coating lines where both fabric and other webs are coated on the same coating line was meant only for web coating lines engaged in the coating of fabric for use in pressure sensitive tapes or abrasive materials. Our intent was for only these web coating lines to be part of the affected source of this final rule. All other fabric coating lines, including those engaged in the coating of fabric and other webs on the same coating line are excluded from the requirements of the final rule. In order to accomplish this, we have revised the affected source section of the final rule to exclude web coating lines engaged in the coating of both fabric and other webs on the same fabric coating line and that are an affected source under the national emission standards for hazardous air pollutants for fabric and other textiles printing, coating and dyeing operations currently under development, from the requirements of this final rule. As stated in the Background Information Document (EPA-453/R-00-002) for the proposed rule, the pressure sensitive tape and label industry segment is one of the largest segments of the paper and other web coating source category and should be regulated as such.

### **§ 63.3300(a) - Affected Source**

Comment: Two commenters (IV-D-03 and 05) stated that the term “affected source” was not consistently used, and this could lead to confusion. The commenters suggested that two terms be developed and used exclusively: “existing affected source” and “new affected source”.

Response: We agree that it is important to clearly and consistently use the term “affected source” and have revised the final rule accordingly.

Comment: Several commenters (IV-D-03, 05, 08, and 09) requested that an exemption for incidental coating lines and narrow-web coating lines be included in the final rule. They cited the printing and publishing rule (40 CFR part 63, subpart KK) as an example of a similar exemption for narrow-web coating lines.

Response: We have looked into the database used for developing the standards. The information collected during our data gathering efforts does not specify, in most cases, the type

of web coating lines being reported (i.e., incidental coating line, narrow web line). Therefore, there is no basis for establishing a minimal emission number that would exempt these types of coating lines. We believe that these type of coating lines can demonstrate compliance by testing each material using Method 311, or by obtaining formulation data from the manufacturer of the material (see § 63.3360(c) of the final rule). We believe these requirements are the minimum necessary to demonstrate compliance and as such are not overly burdensome. Thus, we did not make any changes to the final rule in response to these comments.

Comment: One commenter (IV-D-11) requested clarification that new coating equipment at a paper and other web coating facility could be opted in under the printing and publishing rule (40 CFR part 63, subpart KK).

Response: New stand-alone coating lines at a paper and other web coating facility may be opted in under the printing and publishing rule only if the source's paper and other web existing coating lines have been included under, and are in compliance with, the requirements of that subpart.

Comment: One commenter (IV-D-24) noted that this section of the proposed rule specifically clarifies that coating lines subject to the printing and publishing rule (40 CFR part 63, subpart KK) or that are coil coating lines are not subject to the proposed rule. The commenter requested that the final rule include a similar clarification for coating lines subject to the magnetic tape manufacturing rule (40 CFR part 63, subpart EE).

Response: We agree that this clarification would be beneficial. The affected source section in the final rule has been revised to exclude web coating lines complying with the magnetic tape manufacturing rule (40 CFR part 63, subpart EE) and the printing and publishing rule (40 CFR part 63, subpart KK) from the requirements of this subpart. The definition for coil in the final rule has been revised to clarify that for the purposes of this subpart coil does not include metal webs that are coated for use in flexible packaging. In addition to this, a definition for flexible packaging has been added to the final rule.

#### **§ 63.3300(a)(1) - Exemption of Printing and Publishing Lines from the Affected Source**

Comment: One commenter (IV-D-21) stated that for all practical purposes coating and printing operations are indistinguishable. The commenter argued that few pieces of equipment in the flexible packaging industry are “stand-alone” coating equipment as defined in the printing and publishing rule (40 CFR part 63, subpart KK), and even stand-alone stations such as a laminating line are part of the same process for making a single product. The commenter believes it was the EPA's intent that both stand-alone and in-line units could be opted into subpart KK at any time so long as criteria set forth in the designation of affected source section (§ 63.821) of the printing and publishing rule are met for designating such units.

Response: We are not accepting comments on the operations covered under 40 CFR part 63, subpart KK, through this comment period. However, only those coating units that meet the criteria specified in § 63.821(a)(3)(i) may elect to comply with requirements of that rule.

### **§ 63.3310 What definitions are used in this subpart?**

Many comments were received regarding the definitions listed in the proposed rule. These comments are listed below in the order in which the definitions appeared in § 63.3310(a) of the proposed rule.

#### *Always-controlled work station*

Comment: Several commenters (IV-D-03, 05, and 08) believed the intent of this definition was to only include work stations that would not bypass organic HAP emissions to the atmosphere. However, as stated, the commenters thought the definition was too restrictive as there are instances in which a bypass stack (i.e., “a provision for the dryer exhaust to bypass the control device”) could exist yet no organic HAP emissions would occur in practice. For example, a workstation may have a physical or electronic interlock to interrupt and prevent continued coating operations in the event of an emergency (during which a bypass damper would open but only after coating operations are discontinued). The commenters proposed that the following text be added at the end of the first sentence: “. . . the control device unless there is an interlock to interrupt and prevent continued coating during a bypass (not including exempt

bypasses as clarified in the next sentence).”

Several commenters (IV-03, 05, and 08) believed that the last sentence of the definition was intended to exempt activities conducted for safety purposes. They noted, however, that the sentence did not include one particular safety procedure that may be used by the industry, specifically, emergency damper exercising. To make the definition more inclusive, the commenters requested the following modification be made: “Sampling lines for analyzers, relief valves needed for safety purposes, and periodic cycling of exhaust dampers to ensure safe operation, are not considered bypass.”

Response: We agree that these changes would properly clarify the definition and have incorporated them into the final rule.

### *Coating materials*

Comment: One commenter (IV-D-06) argued that including the term “ink” in the definition could cause regulatory agencies to mistakenly classify commercial lithographic, screen printing, digital and paper dying operations as paper and other web coating operations. Consequently, surface coating requirements may be inappropriately applied to graphic arts sources. The commenter requested that a clear distinction be made between coating and printing, and recommended that the term “ink” be stricken from the definition.

Two commenters (IV-D-11 and 24) asked the EPA to modify the definition as follows to clarify that coating materials are not limited only to solids-containing materials: “Coating material means all inks, varnishes, adhesives, primers, solvents, reducers, and other ~~solids containing~~ materials applied to a substrate via a web coating line. Materials used to form a substrate are not considered coating materials.”

One commenter (IV-D-21) thought it would help clarify this definition if the term substrate was changed to independent substrate in the exclusionary sentence. The commenter suggested that the EPA could further clarify the definition if they expressly listed products such as the production of films (for example, blown film, cast film, sheet film) that it meant to exclude from the definition.

Response: We did not intend that the definition of coating materials be limited only to

solids-containing substances. Therefore, we have revised the definition in the final rule by deleting the words “solids-containing” as suggested by the commenters.

We received no information showing that inks are never used by a coating line that would properly be regulated under this rule. Thus, to exclude inks from the definition may be taken as an implied exemption for such a line. For this reason, we are not removing inks from the definition, and believe that the affected source definition and definitions of web and web coating line adequately specify which coating lines are subject to the rule. Moreover, the EPA does not believe that any further clarification is needed for the exclusion of substrate materials.

### *Coil*

Comment: One commenter (IV-D-21) stated that this definition is arbitrary and could potentially affect packaging materials that the EPA intended to cover under the proposed rule. The commenter recommended that the definition be amended with an additional sentence that would read: “Coil does not include metal webs that are coated for use in flexible packaging.”

Response: We agree with the commenter’s suggestion and have revised the definition of coil (metal coil) in the final rule accordingly.

### *Day*

Comment: Two commenters (IV-D-03 and 05) thought it should be clearer that a day is an exclusive period of time that is one day following another and is not a rolling 24-hour period. The commenters requested that a sentence be added as follows: “A day is not a 24-hour rolling period.”

Response: We have used this same definition in other promulgated rules such as the printing and publishing rule (40 CFR part 63, subpart KK) without any reported interpretation problems. Therefore, we did not change the definition in response to this comment.

### *Deviation*

Comment: Several commenters (IV-D-03, 05, and 08) stated that all deviations to the proposed rule should be clearly and specifically noted in the proposed rule to avoid problems with interpretation. These commenters also asked that subparagraph (2) of the proposed definition, which specifies that a deviation includes any failure to meet any term or condition included in the operating permit, be deleted due to the potential for very vague standards in operating permits. They felt that only the proposed rule should set forth the appropriate terms and conditions for sources to meet.

Concerning subparagraph (3) of the proposed definition, these commenters expressed concern that a deviation is a failure to meet an operating limit during startup, shutdown, or malfunction. The commenters stated that in practice, if the temperature of an oxidizer does not meet the minimum temperature requirement during startup or shutdown (which it likely would not, as it is adjusting to the proper temperature), it would be a deviation even if the coating line was not running. In addition, the commenters stated that there is a reference to work practice standards, yet it appears that there are no such standards in the rule. Finally, the statement “regardless of whether or not such failure is permitted by this subpart” indicates that a malfunction to a voluntary piece of emission control equipment (one that is not needed to comply with the rule) would be a deviation, even if compliance with the emission requirements of the rule is still achieved. The commenters requested this paragraph be rewritten as follows: “Fails to meet any emission limitation (excluding any operating limit when not performing coating operations) during startup or shutdown, or fails to meet any emission limitation (including any operating limit) during a malfunction ~~regardless of whether or not such failure is permitted by this subpart.~~”

Response: We are using the term “deviation” to standardize the regulatory language used in each NESHAP and to avoid any confusion that might be caused by using multiple, related terms such as excess emissions, exceedance, excursion, and deviation in the same regulatory program. The definition of “deviation” is consistent with the use of the term “deviation” in the title V operating permit program.

The definition of “deviation” clarifies that any failure to meet an emission limitation (including an operating limit or work practice standard) is a deviation, regardless of whether such a failure is specifically excused, or occurs at times when the emission limitation does not

apply, such as during startup, shutdown, and malfunction. All deviations, therefore, are not necessarily violations. The enforcement authority determines violations. All deviations from emission limitations (including operating limits and work practice standards) are required to be reported, regardless of whether or not they constitute violations, in accordance with the provisions in § 63.3400 of the final rule for reporting.

### *Fabric*

Comment: One commenter (IV-D-01) thought that the EPA should clarify this definition as to which operations are not subject to the proposed rule.

Two commenters (IV-D-03 and 05) suggested that to add clarity to the definition, a comma be added after the word “non-woven” and before “yarn”.

Response: We recognize that the definition as proposed may lead to confusion and have developed a revised definition for the final rule as follows:

*Fabric* means any woven, knitted, plaited, braided, felted, or non-woven material made of filaments, fibers, or yarns including thread. This term includes material made of natural fiberglass, synthetic fibers, or composite materials.

### *Facility*

Comment: One commenter (IV-D-24) noted that the proposed definition is primarily characterized by a contiguous property under common ownership and control and thus the definition would incorporate tenants (web surface coating operations located at the property but not under the operational control of the property owners) into the property owner’s applicability. The commenter thought that tenants who are only leasing the property or building should be subject to the regulation based only on their own merits (that is, whether they are a major affected source) and disregarding the applicability of the landlord. They recommended the following changes to the definition: “Facility means all emission sources located at one or more contiguous or adjoining ~~property~~ properties that ~~is~~ are under common ownership or control. Contiguous or adjoining properties ~~including~~ includes properties that are separated only by a

road or other public right-of-way.”

Response: The definition in the proposed rule is consistent with that used in the printing and publishing rule (40 CFR part 63, subpart KK). We believe consistency between the paper and other web coating rule and the printing and publishing rule is important to maintain, particularly definitions of terms, because some facilities may have affected sources under each rule. In order to avoid confusion that may result from differences in the definition of what constitutes a facility under each rule, we made no changes to this definition in the final rule.

#### *Intermittently-controllable work station*

Comment: Several commenters (IV-03, 05, and 08) believed that the last sentence of the definition was intended to exempt activities conducted for safety purposes. They noted, however, that the sentence did not include emergency damper exercising which is a safety procedure that may be used by the industry. To make the definition more inclusive, the commenter requested the following phrase be added to the sentence: “Sampling lines for analyzers, relief valves needed for safety purposes, and periodic cycling of exhaust dampers to ensure safe operation are not considered bypass lines.”

Response: We agree that this modification would be beneficial and have added the suggested language to the final rule. In addition, we changed this term to intermittently-controlled work station.

#### *New source*

Comment: Several commenters (IV-D-03, 05, and 08) requested that this definition be deleted and the issue of new affected source be fully addressed in the affected source section (§ 63.3300(b)) of the final rule.

One commenter (IV-D-21) was concerned that a new or reconstructed web coating line, which otherwise could be designated under the printing and publishing rule (40 CFR part 63, subpart KK), would be automatically subject as a new source to the proposed rule. The commenter suggested that to be consistent with the EPA's intent, the definition should be

amended by adding the phrase “unless the new source is designated under 40 CFR 63.821” to the end of the definition.

Response: Section 112(a) of the Clean Air Act defines a new source, which is the definition we use in this subpart. The definition is intended to distinguish between new and existing sources under this subpart, not determine applicability of the final rule. We believe that §§ 63.3290 and 63.3300 adequately describe the affected sources subject to the final rule; therefore, we did not modify the definition of new source in the final rule.

#### *Research or laboratory equipment*

Comment: One commenter (IV-D-21) requested that the definition be revised to include presses used for quality assurance and quality control, as such presses do not produce a product for sale.

Response: The operative factor for excluding research or laboratory equipment was the organic HAP emission potential, not whether products for sale were produced by the line. Because no information was provided by the commenter concerning the level of emissions from presses used for quality assurance and quality control, we did not modify the definition of research or laboratory equipment in the final rule.

#### *Unwind or feed station*

Comment: One commenter (IV-D-20) urged the EPA to remove the words “feed station” from the definition. The commenter suggested the following definition: “Unwind station means a unit from which a wound web is fed to a web coating line.”

Response: We believe the suggested change would render the definition too restrictive. The definition as written in the proposed rule was meant to encompass all means by which web may be fed into a coating line. Thus, we did not make the suggested change in the final rule.

#### *Web*

Comment: Two commenters (IV-D-03 and 05) stated that the definition created confusion regarding the regulatory status of fabric coating lines due to language in the preamble. They thought the definition should be changed to reflect that fabric coating could be subject to the proposed rule.

Two commenters (IV-D-20 and 27) recommended that the term “web” be clarified as follows: “Web means a continuous, solid substrate (e.g., paper, film, foil) which is flexible and consolidated enough to be wound or unwound as rolls. . . .” The commenters felt this definition, stressing the strength and solidity of the material, would avoid any implication that unconsolidated fibers or particles, such as those used in the initial stage of papermaking, constitute a web.

One commenter (IV-D-25) questioned whether a facility that coats a continuous substrate that technically could be wound or unwound as rolls, but is not, would be subject to the proposed rule. The commenter stated that in reviewing the definition for "web coating line", it appeared that whether or not the substrate is wound or unwound is not controlling, since this definition references feed station and cutting in addition to unwind or wind. Rather, applicability would depend on the substrate's flexibility, or ability to be wound, rather than whether that activity actually takes place.

Response: Our intent with respect to web coating lines where both fabric and other webs are coated on the same coating line was meant only for web coating lines engaged in the coating of fabric for use in pressure sensitive tapes and abrasive materials. Our intent was for only these web coating lines to be part of the affected source of this final rule. All other fabric coating lines, including those engaged in the coating of fabric and other webs on the same coating line are excluded from the requirements of the final rule.

The definition of “web” does not restrict applicability to substrates that are actually wound as rolls. The definition merely reflects the typical situation in the paper and other web coating industry where the substrate is either fed from a roll or, where the substrate is formed in line, wound as a roll. We do not believe the concerns raised by these commenters are sufficient to make any changes to this definition in the final rule.

*Web coating line*

Comment: One commenter (IV-D-01) thought the definition implied that work stations exist that do not apply a layer of coating materials. The commenter believed it was the EPA's intent in drafting the proposed rule to include within the scope of the affected source all of the emissions sources of organic HAP in the coating process. To improve the clarity of the definition, the commenter suggested that the definition be rewritten as follows: "Web coating line means all work stations and associated drying equipment between an unwind or feed station and a rewind or cutting station. A printing press subject to subpart KK of this part is not a web coating line."

One commenter (IV-D-04) stated that due to ambiguity in the definition of "web coating line" it is difficult to determine which operations are covered. The commenter requested clarification regarding whether laser printers, hand gluing of shipping labels, hand-held marking pens, and lamination of solid sheet polyethylene would be considered web coating lines.

One commenter (IV-D-06) noted that within the current wording of the definition, the term "continuous" refers to the substrate. The background document for this rulemaking defines coating as the application of a uniform layer of material across the entire length or width of a continuous web. The commenter believed that by inserting the word "continuous" before the term "substrate" the EPA redefined coating activities. The commenter urged the EPA to define a web coating line as one with continuous coating applications, not coating on a continuous web substrate. In addition, due to the intermittent and non-continuous nature of the lithographic and screen printing processes, the commenter thought that they should be explicitly excluded from coverage under the proposal. Thus, the commenter recommended the following language: "Web coating line means any number of work stations, of which one or more applies a continuous layer of coating material along the length of a web substrate, and any associated drying equipment between an unwind or feed station and a rewind or cutting station. Printing presses subject to subpart KK, or printing processes excluded from coverage under subpart KK of this part, are not web coating lines. Lithographic, screen printing, digital and paper dyeing presses are not considered web coating lines. Additionally, once the substrate from a continuous coating operation is cut into sheets along the horizontal axis, then the press is no longer considered a web press and the standard no longer applies."

One commenter (IV-D-11) suggested the following modification to the definition: "Web

coating line means any number of work stations, of which one or more applies a layer of coating material along the length and width of a continuous web substrate . . . .”

Two commenters (IV-D-13 and 20) noted that there appeared to be an inconsistency in the definition of “web coating line.” It was the commenters’ understanding that the definition was meant to cover work stations that apply coatings and drying operations, both of which are between the unwind or feed station and the rewind or cutting station. However, the web coating line definition includes “any number of work stations, of which one or more applies a layer of coating material.” By definition, “work station” is a unit where “material is deposited onto a web substrate.” The commenters suggested that the definition simply end after “any number of work stations.”

One commenter (IV-D-20) urged the EPA to remove the words “feed station” from the definition because they imply the inclusion of unconsolidated materials (such as unbound fibers), which is not consistent with the concept of a substrate to be coated.

Another commenter (IV-D-27) also thought that the EPA should eliminate the words “feed station” from the definition because unwind station clearly and adequately defines the beginning of the coating line. In addition, elimination of the feed station reference would eliminate any misconceptions that the rule was intended to cover papermaking systems.

One commenter (IV-D-21) thought that printing presses in the industry could erroneously be considered web coating lines because web coating may at certain times take place along with printing applications on the line. However, the commenter did not believe that the EPA intended to cover these applications and thought this should be clarified in the final definition.

Response: We agree that the definition of web coating line as proposed requires clarification in order to adequately define the affected source specified in § 63.3300 of the final rule. However, the definition of web coating line must be broad enough to include all of the possible equipment configurations that are present in the industry, or are foreseeable in the future. For this reason, we did not agree with all of the changes suggested by the commenters.

Commenter IV-D-01 suggested that the definition be changed from “any number of work stations” to “all work stations.” While in many instances all work stations will be included in the paper and other web coating rule affected source, this will not always be the case. To avoid confusion as to whether coating lines regulated by other rules (e.g., the printing and publishing

rule) might also be regulated by the paper and other web coating rule, we did not make the suggested change.

Another commenter requested clarification as to whether operations such as laser printers, gluing of shipping labels, marking pens, and lamination would be considered web coating lines. We believe the issue being raised by this commenter is whether such operations are within the affected source of the final rule. We addressed this issue in a previous comment and stated that if the definition of coating material and web coating line are met, and all other applicability requirements in the final rule are met, then the operation would be part of the affected source.

Commenter IV-D-06 suggested that the word “continuous” in the definition in the proposed rule should describe the coating, not the substrate. We agree with this comment and have revised the definition in the final rule accordingly. However, we disagree with this commenter's suggestion that once the web is cut into sheets the rule should no longer apply. Whether the web is continuous when actually coated is irrelevant, so long as it meets the definition of web (i.e., a continuous substrate which is flexible enough to be wound or unwound as rolls) prior to the coating operation.

Commenter IV-D-11 suggested that the definition should specify that the coating is applied across the width of the web. We agree that the definition needs to be clearer on this point, but we do not believe it is appropriate to state that the coating must be applied across the entire width of the web. Along with the modification discussed above stating that the layer of coating material must be continuous (which distinguishes web coating operations from printing), we added a sentence to the definition clarifying that any portion of the width of the web may be coated. It is not necessary to coat the entire width of the web to be a web coating line as defined in the final rule. To further clarify the meaning of this definition, we also removed the wording specifying that the web must be coated along its length. We believe this is unnecessary after specifying that the coating must be applied across some portion of the width of the web.

We do not agree with commenters IV-D-13 and 20 that the definition should end after the phrase “any number of work stations.” While the definitions of web coating line and work station are interrelated, we believe it is necessary to include the curing/drying equipment in the definition to make sure all points where organic HAP may be emitted are within the affected

source.

While commenter IV-D-20 is correct in that the use of “feed station” in the definition of web coating line may infer that feeding of unconsolidated fibers would be included, we believe that any ambiguity is eliminated when considered in conjunction with the definition of web. A web is defined as a continuous substrate flexible enough to be wound or unwound as rolls. Clearly, unconsolidated fibers do not meet this definition and the line would not be a web coating line until the fibers are consolidated such that they constitute a web as defined in the final rule. In response to commenter IV-D-27 request to remove feed station from the definition, we believe that to do so would eliminate coating lines where the web is formed in line with the coating operation and coating lines where the web is cut into sheets prior to coating. As this is not our intent, we did not remove feed station from the definition in the final rule.

Commenter IV-D-21 is correct in that we do not intend to include printing lines in the affected source for this rule. However, we do not believe that the definitions are the appropriate place to specify what types of operations are covered under this subpart. This information is provided in the affected source section of the final rule (§ 63.3300). Therefore, we have removed the reference to printing presses subject to subpart KK of this part from the definition of web coating line. The affected source definition in § 63.3300 of the final rule specifies which equipment is not included in the affected source.

In response to these comments, the definition of web coating line in the final rule has been modified as follows:

*Web coating line* means any number of work stations, of which one or more applies a continuous layer of coating material across ~~along~~ the entire width or any portion of the width ~~length~~ of a continuous web substrate, and any associated curing/drying equipment between an unwind or feed station and a rewind or cutting station. ~~Printing presses subject to subpart KK of this part are not web coating lines.~~

#### *Work station*

Comment: One commenter (IV-D-01) thought this definition was confusing and

suggested the following language: “Work station means a unit where one or more coating materials are deposited along the length of a web. An operation involving parts cleaning or the cleaning of a web coating line, the mixing or storage of coating materials, or the formation of a web is not a work station.”

Two commenters (IV-D-13 and 20) requested that the word “material” be replaced with “coating” to clarify that materials involved in the production of the substrate are not covered.

Response: We do not believe this definition is the appropriate place to specify whether cleaning, mixing, storage, and film formation are within the affected source. We discussed this issue previously in responses to comments on § 63.3300 of the proposed rule. We agree that clarification is needed of what “material” means in this definition. Therefore, the word “coating” was inserted before “material” to clarify which materials were intended to be covered by the final rule.

Comment: Several comments were received which requested that new definitions be added to § 63.3310(a) of the proposed rule. Three commenters (IV-D-03, 05, and 08) requested that the following definitions, consistent with the printing and publishing rule (40 CFR part 63, subpart KK), be included:

*“Incidental coating line means a coating line that applies less than 500 kg of coating materials or less than 400 kg of HAP per month.”*

*“Narrow web coating line means a coating line of less than 24 inches (61 cm) coated width.”*

One commenter (IV-D-11) requested that the EPA add the following definition:

*“Source means the collection of all affected web coating lines at a facility.”*

One commenter (IV-D-13) suggested the following definitions:

*“As emitted means the amount of organic HAP emitted from the process coatings to the atmosphere.”*

*“HAP emitted means the amount of organic HAP emitted from the web coating line.”*

*“HAP retained means the amount of organic HAP in a reactive coating which are not emitted.”*

*“Reactive coating means a coating in which one or more HAP bonds with or is retained*

in the coated web, and therefore is not emitted to the atmosphere. For example, by cross-linking or polymerizing.”

One commenter (IV-D-24) thought that a definition of “total organic HAP” was needed. The commenter suggested that the definition reference the table of organic hazardous air pollutants in the synthetic organic chemical manufacturing industry rule (Table 2 to 40 CFR part 63, subpart F).

One commenter (IV-D-24) suggested adding a definition of “volatile organic matter” because the use of volatile organic content as a surrogate for organic HAP is a significant element of the proposal. The commenter suggested the following language:

*“Volatile organic matter means the nonaqueous volatile matter of a coating material determined in accordance with Method 24. This value can be substituted for the organic HAP content for all compliance purposes.”*

Response: The terms “incidental coating line,” “as emitted,” and “reactive coating” do not appear in the final rule; therefore definitions are not needed. The term “narrow web coating line” is not used in the final rule, but the term “narrow web flexographic printing process” is used in the list of web coating lines that are not an affected source. This process was excluded from the definition of affected source because it was already addressed under the printing and publishing rule (40 CFR part 63, subpart KK). Because subpart KK adequately defined this term, we did not believe it was necessary to repeat the definition in the final rule. Concerning the definition of “source,” we believe that § 63.3300 adequately describes the affected source. We believe that a separate definition of “HAP emitted” is not necessary because it is adequately explained in the final rule through the definitions of symbols used in equations. While the final rule does not use the term “HAP retained,” it does use the term “volatile matter retained” in the same context as discussed by the commenter. As discussed in the response to other comments below, the symbol  $M_{\text{ret}}$  has been added to several compliance demonstration equations to account for volatile matter not actually emitted. We believe that the definition of this symbol as listed after each equation in the final rule in which it appears adequately explains the meaning of this term and a separate definition is unnecessary.

#### **§ 63.3310(b) - Symbols Used in Equations**

Comment: One commenter (IV-D-13) suggested more clearly defining the symbols used in the equations.

Response: We have reviewed the wording used to define the symbols in the proposed rule and found them to be adequate. However, we believe the final rule would be easier to use if the definitions of the symbols appeared after each equation, rather than collected together as they are in this section in the proposed rule. For this reason, the symbols used in the equation are defined immediately after each equation in the final rule.

Comment: One comment was received regarding the opportunity to introduce flexibility into the equations. The commenter (IV-D-24) noted that the equations contain variables that represent the amount of solution ( $M_{ij}$ ,  $M_{I,j}$ ), either purchased or added to the coating. Because the emission limits present an upper bound, the values of  $M_{ij}$  and  $M_{I,j}$  can be subject to some assumptions and still provide a justifiable compliance demonstration. The commenter thought that although these values are used throughout the equations, there is an opportunity to impart some flexibility in their accuracy. For example, disregarding the amount of water added to a coating would not matter in a compliance demonstration where the volume of water is multiplied by its organic HAP content (which is zero). When the compliance demonstration involves calculating a concentration or organic HAP content, then disregarding non-HAP additives would lead to a higher concentration or content value.

Response: We believe that the simplicity and ease of use of the equations as proposed outweighs the flexibility suggested by the commenter. We do not believe that the additional level of complexity that would be required to implement the commenter's suggestion is warranted.

### **§ 63.3320 What emission standards must I meet?**

Comment: One comment was received that urged the EPA to establish a separate subcategory for new and existing web coating lines that are controlled with solvent recovery systems and to establish emission limits that can be consistently achieved in practice by such lines. The commenter (IV-D-16) argued that differences in the processes used by solvent

recovery-controlled lines, questions regarding the suitability of incineration technologies for certain types of applications, and issues regarding the effectiveness and feasibility of solvent recovery systems under certain climatic conditions all justify the creation of a separate subcategory.

Response: We used performance test data for control devices used by POWC facilities to establish emission limits for this source category. These control devices included both thermal oxidizers and solvent recovery units. Many factors are known to affect the performance of carbon adsorption and thermal oxidation control devices. Although information on the specific test conditions for the reported control efficiency data was not available, we have test data demonstrating that the emission limits are achievable for these types of control devices. Therefore, we do not believe a separate subcategory is justified.

#### **§ 66.3320(b) - Emission Limitations**

Comment: Two commenters (IV-D-20 and 21) suggested that the language in § 63.3320(b) of the proposed rule did not clearly state that any combination of the compliance options could be used. One commenter (IV-D-20) also stated that, to the extent that the “as applied” compliance option is referenced in this section, the “as purchased” and “as emitted” options should also be noted.

Two comments were received regarding inconsistencies between the preamble and the proposed rule concerning the flexibility of the three compliance options. These commenters (IV-D-03 and 05) felt that the intended flexibility was not reflected in the preamble.

Response: We intended to allow flexibility in choosing emission limit options (§ 63.3320 in the final rule) and compliance determination options (§ 63.3370 in the final rule). The final rule reflects our intent to allow a facility to choose any one emission limit option or combination of options for the affected source. The selected emission limit option or options can be changed each month. Also, you have the ability to choose the way in which you demonstrate compliance among the options presented in § 63.3370 of the final rule. You may use any number of the compliance demonstration options during each month, as is appropriate for your situation. Changes made to the selected emission limit option, though, must be reported in your

semiannual report.

Comment: Two comments were received concerning limits in the proposed rule that are expressed as a ratio of kilograms organic HAP per kilogram coating solids or kilograms organic HAP per kilogram coating. These commenters (IV-D-03 and 05) believe that facilities should have the flexibility to do the calculations in any units (English or metric) that are convenient as long as the results are reported in units consistent with the proposed rule.

Response: Calculations may be performed in either metric or English units so long as the emission limit is reported in the units specified in the final rule. No rule change is needed.

Comment: Several commenters (IV-D-03, 05, 06, 11, and 24) requested the text of this section be changed to make it clear that only HAP or organic HAP emissions must be limited, not emissions in general.

Response: We agree that this should be clarified and have made changes as appropriate in the final rule.

Comment: Two comments (IV-D-03 and 05) requested that the final rule separate the requirements for existing affected sources and new affected sources into two subsections.

Response: We do not believe the structure of the proposed rule leads to confusion between the new and existing source requirements. Developing separate sections as the commenters requested would make the final rule longer and result in more duplication. Because any possible gains in clarity achieved by separating the requirements would be far outweighed by the resulting additional complexity, we did not make any changes to the final rule in response to this comment.

Comment: Two commenters (IV-D-03 and 05) thought that the emission limits in § 63.3320(b)(1)-(3) of the proposed rule did not address allowable organic HAP emissions as determined under Equations 14, 15a, and 15b.

Response: Section 63.3320 presents the organic HAP emission limits, while § 63.3370 specifies the means of complying with those emission limits. One of the means of complying

with the emission limits is allowable organic HAP emissions, which should only be addressed in § 63.3370. Therefore, it would have been inappropriate for any method of compliance to be addressed in § 63.3320.

Comment: Two commenters (IV-D-03 and 05) thought that the proposed 98 percent overall reduction efficiency for new sources would virtually eliminate the use of solvent recovery systems and force the use of oxidizers for control. The commenters argued that a 95 percent overall control efficiency requirement, though difficult, would be achievable by solvent recovery technologies and still provide substantial secondary environmental benefit. The commenters requested that the EPA delete the separate requirements for new sources and govern all existing and new sources at 95 percent reduction efficiency. One of the commenters (IV-D-05) added that a subcategory should be developed that addresses solvent recovery for new sources.

Response: The Clean Air Act (CAA) specifies how emission limits are to be established for new sources. Section 112 (d) of the CAA states that “the maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source.” When establishing emission limits for new sources in this source category, we used control efficiency values reported for control devices, both thermal oxidizers and solvent recovery units used by paper and other web coating facilities, which are based on performance test data. Many factors are known to affect the performance of carbon adsorption and thermal oxidation control devices. Although information on the specific test conditions for the reported control efficiency data was not available, we have test data demonstrating that the reported control efficiencies for these types of control devices are achievable. The MACT floor analysis for this rule determined that the emission control of the best controlled source in this category was 98 percent. Therefore, we have retained the 98 percent overall control of organic HAP emissions for new affected sources. As stated in the preamble to the proposed rule (65 FR 55339), although some facilities reported more than 98 percent overall control of organic HAP emissions, this higher level of control may not be achievable on a continuous basis under all normal operating conditions applicable to new sources. In the final rule, the compliance

demonstration requirements for web coating lines controlled with solvent recovery systems using a liquid-liquid material balance include provisions for giving credit for retained solvent or otherwise not emitted to the atmosphere. These provisions should provide an additional incentive for sources to use solvent recovery systems.

We have the discretion under section 112(d)(1) of the CAA to “distinguish among classes, types, and sizes of sources” when establishing emission limits. However, the selection of which control device to use, even when it is integral to the coating operation, is not a different class, type, or size of paper and other web coating source. While the non-HAP environmental impacts of control devices such as thermal oxidizers are a factor to be considered, they are not, in and of themselves, an adequate reason to reject a higher level of control in favor of a lower level of control. Section 112(d)(2) of the CAA directs us to develop emission standards that require the maximum degree of HAP emission reduction that we deem achievable. Further, we are only allowed to take into account “the cost of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements.” All of these considerations were made in the development of the proposed rule and were found to be acceptable. Therefore, we did not develop a subcategory that addresses solvent recovery for new sources.

Comment: Several commenters (IV-D-03, 05, and 08) thought the language implied that the new source requirements referred to entirely new “Greenfield” sites only (as opposed to new coating lines at existing facilities). They requested that should the EPA elect to retain separate limits for existing and new sources, this paragraph should be expanded to clarify that “new” means an entirely new “Greenfield” facility.

Response: A new affected source is a source that is constructed after September 13, 2000, and is a “completely new” coating facility where no facility had previously existed. The emission limit for new affected sources is applicable to both new and reconstructed sources. This means that a source that is reconstructed, according to the definition of “reconstruction” in 40 CFR 63.2 of the General Provisions (40 CFR part 63, subpart A), is considered essentially “new” and thus must meet the emission limit for new affected sources. Based on the definition of “reconstruction,” adding capacity to an existing source with a new coating line would not

trigger reconstruction, but it is possible to do so (especially for smaller sources) if a new line replaces an old line. In those cases where the “reconstruction” provisions are triggered, the more stringent new source limit would have to be met by the entire affected source.

Comment: One comment was received regarding the available information to support the proposed control levels for new and existing sources. The commenter (IV-D-12) argued that the EPA does not have the information to support their statements and conclusions. The commenter added that without a provision for monitoring actual process emissions, the information will continue to be unavailable to ensure that organic HAP reductions are actually occurring.

Response: We disagree that insufficient information was used to develop new and existing source emission limits. The Background Information Document for the Proposed Standards (EPA-453/R-00-002), as well as other materials in the docket, fully document the information and procedure used to develop the emission limits. When establishing emission limits for sources in this source category we used performance test data to determine control efficiency values for thermal oxidizers and solvent recovery units used by paper and other web coating facilities. Many factors are known to affect the performance of carbon adsorption and thermal oxidation control devices. Although information on the specific test conditions for the reported performance test data was not available, we have test data demonstrating that the reported control efficiencies for these types of control devices are achievable.

Comment: One commenter (IV-D-12) stated that once the MACT floor level of control is established in terms of percent emission reduction, the EPA should require all affected sources to meet this limit instead of an alternate limit.

Response: The alternate emission limits are equivalent to the MACT floor level of control. Thus, we are not making any changes to the alternate emission limits in the final rule.

### **§ 63.3320(b)(1) - Emission Limit Based on 5 Percent of the Organic HAP Applied**

Comment: One commenter (IV-D-13) stated that downtime and malfunctions of control devices must be anticipated. The relatively high degree of control efficiency required is an

exacting requirement, with little room for error. The commenter urged the EPA to insert provisions in the regulation that would accommodate such outages, such as allowing completion of a batch operation during which a malfunction of the oxidizer or other control device results in an efficiency lower than required.

Response: Provisions for each source to develop a startup, shutdown, and malfunction plan were included in the proposed rule and were maintained in the final rule. This plan may address each of the specific situations raised by the commenter. The source must then follow the provisions of the plan in order to demonstrate compliance.

Comment: One commenter (IV-D-06) stated that it would be unlikely that the 98 percent organic HAP overall control efficiency required for new sources can be met, and the industry data do not necessarily reflect control levels achievable during all of the various coating operations. The commenter suggested that the 95 percent organic HAP overall control efficiency for existing sources be adopted for new sources.

Response: The EPA believes that the 98 percent organic HAP overall control efficiency (OCE) for new sources is achievable based on information provided by the paper and other web coating industry, an EPA study of available thermal oxidizer technology (Docket A-99-09, Item No. II-A-5), and other information from State agencies and control equipment vendors. Therefore, the 98 percent organic HAP OCE for new sources in the final rule was not changed in response to this comment. However, in consideration of this request, we have added an alternative method of demonstrating compliance with the 98 percent organic HAP OCE for new sources. This alternative method of compliance appears in the final rule at § 63.3370(d)(3). An owner or operator using an oxidizer to control organic HAP emissions may choose to meet the 98 percent organic HAP OCE requirement for new sources, or operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved, as long as the efficiency of the capture system is 100 percent. An enclosure that meets the requirements in § 63.3360(e)(1) of the final rule will be considered a total enclosure. The alternative emission limit of 20 ppmv organic HAP by compound is based on the EPA study of available thermal oxidizer technology. This alternative should account for any variable or low inlet concentrations and destruction efficiency. Based on

past experience, we believe that a 20 ppmv by compound organic HAP emission limit could be reached by most oxidizers with moderate adjustments.

As discussed in the preamble to the proposed rule, some facilities reported more than 98 percent overall control of organic HAP emissions. However, to determine the level of emission control achievable with this technology, it is important to consider not only the level of control reported, but also the control levels that we have generally found to be achievable for this type of control technology. This approach ensures that factors affecting control levels, such as variations in source operating conditions and inlet loadings to the control device, are accommodated in the selection of the new source limit. The EPA study of available thermal oxidizer technology indicated that a 98 percent reduction is the control efficiency achievable by new oxidizers. For these reasons, we maintain that the 98 percent organic HAP OCE for new sources is achievable on a continuous basis.

Also, the final rule includes other compliance options, such as the use of compliant coatings or coatings that contain less than the allowable organic HAP limit. The use of emission control equipment is not required for achieving compliance in these cases.

Comment: One commenter (IV-D-17) expressed concern that the new source limit of 98 percent control would disproportionately affect small facilities. The commenter believed that there exists a potential magnification effect caused by added constraints from stricter regulation on newer/smaller firms, since newer facilities are required to meet 98 percent reduction levels of organic HAP emissions. Newer/smaller facilities will have to use thermal oxidation as their control technology since thermal technology is the only control technology (which by itself) was found to achieve 98 percent levels of reduction.

The commenter suggested that it would be fairer to either hold both older and newer facilities to the 95 percent level over the next 3-year grace period for compliance, or hold them to the different required reduction levels for a period of three years and then raise the level of the older plants to 98 percent, with a two-year grace period for compliance for the older facilities.

Response: We disagree that the proposed rule disproportionately affects small entities. As an integral part of the development of the proposed rule, we conducted a regulatory flexibility analysis and concluded that the proposed rule will not have a significant economic impact on a

substantial number of small entities (including small businesses). The regulatory flexibility analysis was discussed in section IX.F. of the preamble to the proposed rule.

### **§ 63.3320(b)(2) - Emission Limit Based on 4 Percent of the Mass of Coating Materials Applied**

Comment: One comment was received regarding the requirement that materials applied for new sources not exceed 1.6 percent of the mass of coating materials applied for the month. The commenter (IV-D-21) was concerned that this limit is very close to the Occupational Safety and Health Administration's specification that only constituents present in a concentration of 1 percent or more need be listed on a product's material safety data sheet (MSDS). If a product has several constituents just below the 1 percent limit, the total organic HAP content could be above the 1.6 percent limit, yet no organic HAP would be listed on the MSDS. They urged the EPA to revise the limit to 2 percent.

Response: The proposed rule, as well as the final rule, does not require you take into account any organic HAP constituents present at a concentration of less than 0.1 mass percent for OSHA-defined carcinogens or less than 1.0 mass percent for all other organic HAP when performing a Method 311 test (see § 63.3360(c)(1)(i) of the final rule). The same provisions apply if you use formulation data to determine the HAP content of coatings (see § 63.3360(c)(3) of the final rule). Thus, in both of these cases, the commenter's concerns are unwarranted, as the amount of organic HAP present below these low level cutoffs will not be counted during a performance test.

We recognize, however, that if you use Method 24 to determine the volatile organic content of a coating as a surrogate for the organic HAP content, then these low levels of organic HAP constituents will be counted. In this case, counting the organic HAP present at low concentrations is a consequence of using this test method and is unavoidable.

Comment: One commenter (IV-D-10) stated that when using the same baseline as for the other compliance options, the compliance calculation for the coating limit of 4 percent organic HAP by mass yields a permitted emission value of 0.04 kg organic HAP/kg coating. The

commenter believes that this is not correct.

Response: We included pollution prevention alternatives in the proposed rule as an alternative to the 95 percent emission reduction limit. However, in developing these alternatives the wide variety of printing and coating materials applied at product and package rotogravure and wide-web flexographic printing facilities made it difficult to establish a pollution prevention limit based on specific pollution prevention coating formulations. Therefore, the pollution prevention alternative was calculated by applying the maximum achievable control technology to traditional solvent-based inks and coatings. A traditional solvent based material with 80 percent organic solvent and 20 percent coating solids, by weight, was used in these calculations. Applying the 95 percent organic HAP emission reduction to this coating yields the limit of 0.04 kg organic HAP per kg coating.

#### **§ 63.3320(c) - Emission Limit Based on 20 Percent of the Mass of Coating Solids Applied**

Comment: Several commenters (IV-D-03, 05, and 08) thought that the proposed rule provided no flexibility in the event of a catastrophic emission control system malfunction or significant business change related to emission control equipment. Provided a facility can continue to meet the emission limit (but on a 12-month rolling basis instead of a monthly basis), the commenters believed it would be appropriate to allow some type of alternative compliance plan.

Response: Each source using an add-on control device for compliance purposes is required to develop a startup, shutdown, and malfunction plan. We believe this plan, not the rule itself, is the appropriate place to specify procedures related to catastrophic failure of an add-on control device because of the site-specific nature of such procedures.

#### **§ 63.3330 When must I comply?**

##### **§ 63.3330(a) - Compliance Date for Existing Sources**

Comment: One commenter (IV-D-18) stated that three years is a reasonable time period

for sources that must install control equipment. However, requiring the performance test to be completed prior to the compliance date could be problematic. The commenter proposed that the performance test be completed within 180 days after the compliance date.

Two commenters (IV-D-21 and 22) stated that the proposed rule would require performance tests 180 days *before* the MACT compliance date. However, the General Provisions (40 CFR part 63, subpart A) timing requires performance testing within 180 days *after* the MACT compliance date. The commenters felt that there was no reason to deviate from the General Provisions.

Another commenter (IV-D-24) was also concerned with the requirement that the performance test must be completed prior to the compliance date. The commenter stated that this inconsistency of having a significant compliance requirement before the compliance date is compounded by the continuous monitoring requirements of the proposed rule (§ 63.3350(b)), which require that a source begin demonstrating continuous compliance immediately following the completion of the performance test. Furthermore, § 63.9(h)(2)(ii) of the General Provisions requires that a notification of compliance status be submitted within 60 days following completion of the performance test. Therefore, not only is the performance test required prior to the compliance date, but many other compliance obligations are required prior to this date because the performance test itself triggers other compliance requirements.

Response: We agree that the performance test date for control equipment should coincide with the General Provisions. Therefore, the final rule has been changed to require the control device performance test to be conducted as specified in the General Provisions (within 180 days after the compliance date).

Comment: A commenter (IV-D-21) requested confirmation that modifications of an existing area source that make the source an affected major source would subject that source to the existing source requirements and the source would thereafter have three years under § 63.3330(a) to comply with the proposed rule. Second, the commenter requested clarification that if an affected major source becomes an area source because the EPA delists certain compounds as HAP under the Clean Air Act, or other circumstances occur that make a source an area source other than application of the required controls, it is no longer subject to the rule.

Response: According to § 63.6(a)(2) of the General Provisions, if an existing area source subsequently increases its emissions or potential to emit such that it is a major source of HAP, then the source will be subject to the relevant emission standard. Paragraph 63.6(c)(5) specifies that the source shall have the same period of time to comply as existing major sources (i.e., three years after the area source becomes a major source). However, if such an area source becomes a major source through the addition of a new affected source or through reconstructing, then the portion of the facility that is a new or reconstructed affected source must comply with the new source emission standards upon startup.

If, however, the area source is constructed or reconstructed after the proposal date of the standard and subsequently becomes a major source, then the source must comply with the new source emission standard upon startup (see § 63.6(b)(7)). Because the affected source is defined as “the collection of all web coating lines at your facility,” if replacement of a web coating line triggers reconstruction of the affected source and, thus, the new source emission standard, then all of the web coating lines at the facility would be subject to that standard.

A major source that subsequently reduces its emissions to area source levels after the effective date of the standard is still subject to the standard, regardless of the reason for the emission reduction (such as through pollution prevention (P2) measures). Through discussions with State and Territorial Air Pollution Program Administrators & Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), we have developed a tentative solution that will require changes in the Part 63 General Provisions or individual MACT rules rather than a change in our policy memo on this subject. We have been working to develop regulatory options that would allow qualifying sources to satisfy the MACT requirements through innovative streamlined approaches after the compliance date if they achieve emission reductions equivalent to or better than MACT levels of control through P2 measures. The regulatory options under consideration will include components that meet the legal requirements of the CAA and still resolve the issues regarding P2. After concluding discussions of the options, we intend to develop the appropriate regulatory language and propose changes to the Part 63 General Provisions or existing rules in the near future.

We do not intend to subject area sources to the standard. Existing major sources have until the compliance date, which is three years after the publication of the final rule in the

*Federal Register*, to establish area source status. We will address the effect of any HAP delistings on the status of major sources after the compliance date in the context of delisting decisions and not within individual NESHAP.

Comment: Given the volume of data and calculations necessary to demonstrate compliance, several commenters (IV-D-03, 05, and 08) proposed allowing up to the end of the following month as the deadline for when monthly compliance must be demonstrated.

Response: The proposed rule requires that compliance be demonstrated each month (see § 63.3370). Because you would need a complete month of data to perform the compliance demonstration calculations, the month must be over before all of these data are available. Thus, the compliance demonstration must be performed during the following month. Because the proposed rule does not specify any requirements in conflict with the commenters' statement, we made no changes to the final rule in response to these comments.

#### **§ 63.3330(c) - Compliance Date for Reconstructed Sources**

Comment: A commenter (IV-D-02) noted that this section describes how reconstruction of an existing affected source could result in the application of new source limits. The definition found in the General Provisions at § 63.2 for reconstruction does not distinguish between changes to an affected source during a finite period and incremental changes over an extended period. The commenter asked if changes need to be aggregated over any contemporaneous period.

Response: We have not required incremental, unrelated changes to be aggregated for purposes of reconstruction. However, reconstruction projects often occur in a series of distinct, smaller projects that may occur over some period of time. When these smaller projects are intended to be part of a continuous plan of reconstruction or modification, then they would have to be aggregated when determining if reconstruction provisions have been triggered.

#### **§ 63.3340 What general requirements must I meet?**

Comment: Two commenters (IV-D-03 and 05) thought the reference in this section to Table 1 of the proposed rule was confusing because Table 1 is actually located immediately after § 63.3420. The commenters requested that Table 1 be placed within § 63.3421 and that all remaining tables stay within the proposed rule itself but be labeled more clearly.

Response: We agree that the manner in which tables were used in the proposed rule may have been confusing. Therefore, in the final rule each table is clearly labeled.

### **§ 63.3350 If I have a control device, what monitoring must I do?**

Comment: Two commenters (IV-D-03 and 05) were concerned that the proposed rule did not appear to contain sufficient language to protect confidential business information (CBI) relative to monitoring and reporting requirements.

Response: We do not believe that any monitoring data or information required in the reports specified in the proposed rule would be CBI. However, assuming that a facility could substantiate that information they are submitting in response to requests for monitoring data or reports in the proposed rule would be CBI, we are required to protect CBI in accordance with the provisions in 40 CFR part 2. In addition, § 63.15 of the General Provisions specifies how a source may submit confidential business information and the protections given to such information. We believe these provisions are adequate to safeguard confidential business information and have made no changes to the final rule in response to these comments.

Comment: One commenter (IV-D-11) requested that the title of this section be changed to reflect that it is applicable only if you use a control device for compliance purposes. When utilizing the pollution prevention option for compliance, a facility that utilizes a control device only to meet VOC emission limits may opt not to utilize the control device option for compliance with the proposed rule. Another commenter (IV-D-21) requested clarification that monitoring of add-on control devices is only necessary while the affected source is using organic HAP and controlling emissions with an add-on control device for compliance with the proposed rule.

Response: We agree that clarifying the situations in which this section is applicable

would be beneficial. Therefore, we have changed the title of this section to “If I use a control device to comply with the emission standards of this subpart, what monitoring must I do?” In addition, we have made this clarification where appropriate in the text of the final rule.

Comment: One commenter (IV-D-24) noted the proposed rule does not address non-coating emissions (e.g., from film formation) that are co-mingled with coating emissions. The commenter interpreted this to mean that non-coating emissions (excluded from control under the proposed rule) are to be included in the required monitoring performed during the compliance demonstration. The commenter believed this interpretation is the most reasonable option and suggested that it would be useful if the final rule contained language that confirms this interpretation.

Response: When the source is measuring the pollutant concentration in an exhaust stream (e.g., during the performance test for an add-on control device), we agree that co-mingled non-coating emissions would be included as if they were coating emissions, assuming that it is not possible to exclude the non-coating emissions during the test. The non-coating emissions would not be counted when demonstrating compliance by means that do not directly measure emissions, such as demonstrating that the monthly average organic HAP content of coating materials does not exceed the emission standard either with no control device, or with a control device and applying a control efficiency demonstrated during the performance test. However, we do not believe the wording of the proposed rule leads to any confusion regarding this point, and we made no changes to the final rule in response to this comment.

### **§ 63.3350(c) - Bypass and Coating Use Monitoring**

Comment: One commenter (IV-D-21) thought that the requirement for continuous monitoring of valve closures for intermittently-controlled work stations was not justified when a source is not using a control device for compliance with the proposed rule and should be deleted. The commenter added that the second sentence in this paragraph beginning with “You must demonstrate . . .” should be removed.

Response: We agree that this section applies only when an add-on control device is used

for compliance purposes. As stated above, the text in this section of the final rule has been changed to clarify that control device monitoring is required only when using the control device for compliance with this subpart.

Comment: One commenter (IV-D-24) stated that the first sentence of this paragraph implies that the mass of each coating material applied at a workstation during any bypass must be monitored. The next sentence seems to clarify that the emissions must be accounted for in the compliance demonstration. However, the commenter argued that this does not necessarily require monitoring; the emissions could be determined by the use of formulation data as well. The commenter suggested language to eliminate the potential confusion in the first sentence.

Response: We disagree with the commenter that monitoring of coating usage is not necessary. Even when formulation data are used, the amount of coating material used must be determined, which requires monitoring. This monitoring is specified in the language of § 63.3350(a)(1): “Record parameters related to . . . coating use.”

Comment: Several commenters (IV-D-03, 05, and 08) stated that the requirements for flow control position indicators in § 63.3350(c)(1) are too complex and proposed that recording of the position should only be required at startup and every change, not arbitrarily every hour. These commenters also stated that the car-seal and lock-and-key valve closure monthly monitoring frequency in § 63.3350(c)(2) is unduly burdensome and unnecessary and proposed that the requirement be changed from every month to every quarter. In addition, these commenters indicated that the valve closure continuous monitor monthly inspection frequency in § 63.3350(c)(3) is unduly burdensome and unnecessary and proposed that the requirement be changed from every month to every quarter.

Response: These requirements are identical to those we have used previously in other rules (for example, see § 63.828 of the printing and publishing rule). We believe these requirements are indispensable to proper assurance that periods of bypass are duly noted and accounted for in compliance determinations. Therefore, no changes were made in the final rule.

Comment: One commenter (IV-D-21) noted that this paragraph would require the valve

or damper to be in the closed position “when the control device is in operation.” The commenter stated the section should be revised because the commenter believes that the EPA intended to say “when the emission source is in operation and is using a control device for compliance.”

Response: We agree with the commenter that this monitoring is required only when the control device is being used to comply with the emission limit and have changed the language in the final rule accordingly.

#### **§ 63.3350(c)(4) - Automatic Shutdown System for Monitoring Control Device Bypass**

Comment: Three commenters (IV-D-03, 05, and 08) stated that the inspection of an automatic shutdown system on a coating line should not require actually shutting down the coating line, only verifying that the line would shutdown if needed (due to the cost and operational problems associated with such shutdowns). As such, the commenters suggested that the last sentence be changed. These commenters also stated that the frequency of inspection of automatic shutdown systems is unduly burdensome and unnecessary and proposed that the requirement be changed from every month to every quarter. Another commenter (IV-D-21) was concerned because inspection of the systems would require electricity to be turned off for safety, causing tremendous practical difficulty, economic losses, and the potential for bypassing during shutdown and startup. This commenter also stated that the monthly inspection requirement to verify that the system will detect diversions of flow and shutdown is unnecessarily complicated because the industry uses electric alarms that shut off electricity to the coating lines when the pollution control equipment is off line.

One commenter (IV-D-11) pointed out that several coating lines may be ducted to a common control device. In some situations, the coatings being used at one of these lines may be low enough in organic HAP content such that control is not necessary. In this situation, flow may be diverted away from the control device to a bypass line without affecting compliance. The commenter felt that it would not be appropriate to require that the coating line with the valid bypass be shut down.

Response: The intent of the automatic shutdown system provisions in § 63.3350(c)(4) of the proposed rule is only to verify that it would detect diversions of flow and would shut down

operations in these cases. These provisions would apply regardless of whether the source uses electric alarms to shutdown electricity to the coating line. Such a system would also have to be verified as operational.

If the emissions from one or more coating lines are being bypassed from a control device to which the coating line is normally vented because control is not needed to achieve compliance given the coatings that are at that point in time being used, then you would not have to shut down the coating line in the event of a failure of the control device. However, you would be required to maintain records of the periods in which the control device was bypassed and records of the coatings used on the coating lines during periods of bypass. Your monthly compliance determination would have to take into account the emissions from the coating lines during the bypass periods as detailed in § 63.3370 of the final rule.

The proposed rule provisions in § 63.3350(c)(4) do not actually require shutting down the coating line during a monthly inspection. Therefore, there should be no cost or operational problems associated with this requirement. In order to further clarify our intent, the last sentence of this paragraph has been modified as follows: “The automatic system must be inspected at least once every month to verify that it will detect diversions of flow and would shut down operations in the event of such a diversion.”

#### **§ 63.3350(d) - Monitoring Requirements for Solvent Recovery Devices**

Comment: One commenter (IV-D-16) believed that the proposed compliance demonstration requirements for web coating lines controlled with solvent recovery systems are inappropriate. The commenter stated that both requirements (install continuous emissions monitoring system (CEMS) or use a liquid-liquid mass balance) are more stringent than the compliance demonstration requirements applicable to other types of control technologies and unfairly penalize solvent recovery-controlled lines. The commenter argued that the effect of these requirements would be to increase the stringency of the emission limits to a level more stringent than the MACT floor level of control.

One commenter (IV-D-19) argued that the liquid-liquid material balance is a much stricter requirement than the use of CEMS, thus putting solvent recovery at a disadvantage. In

addition, the numerous inaccuracies inherent in performing a liquid-liquid material balance make it much more difficult to demonstrate compliance.

One comment (IV-D-21) was received recommending that the solvent recovery device monitoring requirements of the proposed rule (§ 63.3350(d)) be simplified and mirror similar requirements in the printing and publishing rule (40 CFR part 63, subpart KK, at § 63.824(b)(i)(D)).

Response: We believe that the proposed compliance demonstration requirements for web coating lines controlled with solvent recovery systems (the use of a liquid-liquid material balance or installation of a CEMS) are appropriate and have retained these provisions in the final rule. These compliance demonstration requirements when using solvent recovery systems are contained in several other rules for similar source categories promulgated by EPA over the past several years and may be included in other rules under development. Both industry and enforcement personnel have a great deal of experience with these requirements. If the source chooses to install and use a CEMS for compliance, then the requirements of the General Provisions (40 CFR part 63, subpart A) are applicable because CEMS are used for direct emission measurement for compliance on a continuous basis. Thus, the General Provisions impose more stringent requirements for installation, calibration, and accuracy of a CEMS than for a continuous parameter monitoring system.

We do not agree with the comment that the liquid-liquid material balance is a much stricter standard than the use of a CEMS. We do believe that great care and precision is necessary in order to obtain the most accurate results when performing a liquid-liquid material balance, or any other type of performance test conducted for compliance purposes.

With regard to the comment that the subpart KK rule language in § 63.824(b)(i)(D) be used in this subpart for sources using a solvent recovery device and performing a liquid-liquid material balance, we reviewed and compared the provisions in both of these subparts. The following provisions are in subpart KK, § 63.824(b)(i)(D), for sources using a solvent recovery device and performing a liquid-liquid material balance for monthly compliance: “(D) Install, calibrate, maintain and operate, according to the manufacturer’s specifications, a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be initially certified by the manufacturer to be accurate to

within plus-minus 2.0 percent.” A comparison of these provisions in subpart KK for performing a liquid-liquid material balance with the provisions in the proposed rule ,§ 63.3350(d)(2), shows that these requirements are the same in both of these subparts. Therefore, no change in these provisions has been made in the final rule.

### **§ 63.3350(d)(1) - Continuous Monitoring for Solvent Recovery Devices**

Comment: Two commenters (IV-D-03 and 05) stated that this paragraph does not contain a requirement for how much valid data must be obtained from continuous emissions monitoring systems on solvent recovery devices. The commenters proposed that valid data from at least 90 percent of the hours during which the process operated would be sufficient and would also maintain consistency with a similar provision in § 63.3350(e)(2) of the proposed rule for continuous parameter monitoring systems.

Response: Section 63.3350(d)(1)(iii) of the final rule has been added to clarify that the source must obtain valid emission data from at least 90 percent of the hours during which the solvent recovery process operated. These are the minimum data requirements necessary for solvent recovery units demonstrating compliance with the standard using a CEMS.

Comment: One commenter (IV-D-16) argued that demonstrating compliance through the use of a CEMS on a solvent recovery unit is more burdensome than the use of a continuous parameter monitoring system (CPMS) on a thermal oxidizer. The performance specifications applicable to CEMS, set forth in the General Provisions (40 CFR part 60, appendices B and F), impose much more stringent requirements for installation, calibration, and accuracy than the requirements for CPMS set forth in the proposed rule.

Response: As stated in a previous comment response, the General Provisions (40 CFR part 63, subpart A) do impose more stringent requirements for installation, calibration, and accuracy of a CEMS than for a CMPS. This is due to the fact that CEMS are used for direct emission measurement for compliance on a continuous basis. Therefore, if a CEMS is used on a solvent recovery system for compliance, then the General Provisions requirements for a CEMS are applicable.

## § 63.3350(d)(2) - Monitoring Requirements for Liquid-Liquid Material Balance

Comment: Several comments were received suggesting that the accuracy of the measurement device should be  $\pm 2$  percent by volume, not by mass, based on the manufacturer's specification. The commenters (IV-D-03, 05, and 08) asked that the last sentence of this paragraph be changed to reflect this comment.

Response: We do not believe this is feasible. If all coating materials had the same organic content, then the commenters' suggestion would be appropriate, as we would expect the densities to be equivalent. However, since many, if not all, sources use more than one type of coating material with more than one organic compound and since carbon beds adsorb different organics at different rates, we cannot rely on volume alone to determine a liquid-liquid material balance.

Comment: One commenter (IV-D-16) stated that the liquid-liquid material balance method is susceptible to potential measurement inaccuracies that make it more difficult to demonstrate compliance. For example, a coating line with three coating stations feeding into a single solvent recovery system would have to take four measurements to demonstrate compliance: the amount of solvent applied at each of the three stations and the amount of solvent recovered by the solvent recovery unit. The commenter stated that the proposed rule required the measurement devices to be certified to be accurate within  $\pm 2$  percent. With as many as four measurements taken each month, the potential error can be as high as  $\pm 4$  percent. Therefore, in order to assure compliance, facilities would be forced to attempt to achieve solvent recovery rates well in excess of what is required, and in excess of what is consistently achievable in practice.

Another commenter (IV-D-24) believed that measurement of the amount of recovered material should be allowed at the common line. The commenter felt this single measurement is a more efficient demonstration than a separate measurement, farther upstream, at the outlet from each solvent recovery device. This commenter also believed that there was an additional, unwarranted constraint in § 63.3350(d)(2) of the proposed rule which specifies the measurement of volatile matter. The commenter stated that it should also include the possible measurement of

total organic HAP which would be consistent with the other requirements of the proposed rule.

Response: We believe a two percent tolerance remains appropriate. Should a mass measurement device consistently over- or under-report values, a source owner or operator could recalibrate the device to reflect a more accurate value. Moreover, should an owner or operator become uncomfortable with the prescribed tolerance, he or she could choose to use continuous emissions monitoring systems (CEMS) with a solvent recovery unit or another emissions control technology. Regarding the measurement of volatile matter rather than total organic HAP, we believe the additional complexity of analyzing the solvent recovery device condensate stream for organic HAP content is not warranted. However, should a source desire to measure total organic HAP in the condensate stream, then the source has the option of applying for approval of an alternative monitoring method under § 63.8(f) of the General Provision.

#### **§ 63.3350(e) - Continuous Parameter Monitoring for Control Devices**

Comment: One commenter (IV-D-13) favored an option for control device parameter monitoring to use either a simple 3-hour block average of twelve data points collected at fifteen-minute intervals or a rolling average of the twelve data points. Such an approach would be simpler and would be consistent with the performance test approach found in § 63.3360(e)(3). The commenter believes there is no need to insert an intermediate calculation.

Response: We disagree with the commenter. Emissions performance tests are comprised of at least three test runs, each consisting of a minimum of one hour. A 3-hour rolling average requirement replicates the performance test duration requirements on an ongoing basis. Collection and processing of the data on an hourly basis enables easy calculation of a 3-hour rolling average and provides source owners and operators with the data that could enable adjustment of emissions levels so that exceedances are minimized, if not eliminated.

#### **§ 63.3350(e)(1) - Valid Data Requirement for Continuous Parameter Monitoring**

Comment: One commenter (IV-D-22) requested clarification of what temperature readings must be recorded. The commenter recommended that § 63.3350(e)(1) be revised to

clarify the requirements.

Response: We agree with the commenter and, therefore, §§ 63.3350(e)(9) and 63.3360(e)(3) of the final rule clarify what temperature readings must be recorded.

### **§ 63.3350(e)(3) - Hourly Average of Continuous Parameter Monitoring Data**

Comment: Two commenters (IV-D-03 and 05) believed the requirement in § 63.3350(e)(3) to calculate the hourly average of all recorded readings from continuous parameter monitoring systems is redundant because § 63.3350(e)(4) requires calculation of a rolling 3-hour average.

Response: As mentioned above, we maintain that a 3-hour rolling average is consistent with the period associated with an ongoing emissions performance test. Note that 63.3350(e)(3)(ii) of the final rule does not require hourly average values to be calculated if all recorded values demonstrate compliance.

Comment: One commenter (IV-D-21) believed an affected source should have the option to demonstrate that the requirement for hourly averages of all recorded readings is not applicable if equipment will automatically shut down if the temperature falls below certain set levels. If a thermocouple is present, maintaining an hourly average of continuous readings appears unnecessarily complicated and expensive.

Response: We agree that automatic shutdown sequences may provide an assurance of compliance, provided that the sequences were initiated before the temperature values fell below the 3-hour average recorded during the previous performance test. You have the option under § 63.8(f) to apply for an alternative monitoring method, which could include the use of this type of system. Because the design and operation of such systems may be highly specific to each source, we believe applying for an alternative monitoring method is the more appropriate means of implementing such a system, rather than through the rule itself.

Comment: One commenter (IV-D-22) stated that computer data systems take many measurements a second, and maintaining records of all these measurements is not

technologically possible or needed to confirm proper monitor operation. Paragraphs 63.3350(e)(3) and (4) refer to averages of all “recorded” readings, but do not specify what readings to record. Also, § 63.10(b)(2)(vii) of the General Provisions (40 CFR part 63, subpart A) seems to require records of 15-minute averages, but the proposed rule only requires hourly and 3-hour averages. Since § 63.10(c) of the General Provisions requires records of deviations, records to support § 63.3350(e)(3) and (4) are only needed as confirmation of “in compliance” operation. Thus, the commenter sees no reason to record more than one measurement per 15-minute period, whether an average or a spot reading is taken.

Response: While we agree that a minimum of four data points per hour are required, source owners and operators may wish to track oxidizer performance more frequently. Many data handling systems populate a temporary file with values obtained during a fifteen minute period, take and record the average of those values, and then repeat the process.

#### **§ 63.3350(e)(4) - Rolling 3-hour Average of Continuous Parameter Monitoring Data**

Comment: One commenter (IV-D-11) argued that there was no reason to determine a rolling 3-hour average of all recorded readings if all individual readings are in compliance. Another commenter (IV-D-21) thought that an affected source should have the option to demonstrate that these requirements are not applicable if equipment will automatically shutdown if the temperature falls below certain set levels.

Response: Both of these comments are addressed in previous comment responses. The 3-hour average approximates a performance test period and we cannot require owners and operators to run equipment more stringently than required by the rule (which keeping all 15-minute average values above the average temperature obtained during the previous emissions performance test would do). Automatic shutdown sequences that would prevent emissions exceedances are acceptable once they are approved as an alternative monitoring method as specified in § 63.8(f) of the General Provisions.

Comment: One commenter (IV-D-24) stated that although it appears that the term “operating period” in this paragraph references the 15-minute period during which one CPMS

operating cycle must be completed (according to § 63.3350(e)(1) of the proposed rule), the provision is not clear. The commenter suggested that this should be clarified by defining “operating period” in § 63.3310 or describing it in § 63.3350(e)(4) of the proposed rule.

Response: The commenter is correct in that the term “operating period” refers to the 15-minute period during which the CPMS must complete at least one cycle of operation, as discussed in § 63.3350(e)(1) of the proposed rule. We believe this is clear as written and made no change in the final rule based on this comment.

### **§ 63.3350(e)(6) - Requirements for Temperature Monitoring Devices**

Comment: One commenter (IV-D-22) argued that the monitoring requirements of this paragraph imposed many unusual, unnecessary and wasteful requirements on temperature monitoring systems that provided no environmental benefit. In addition, these requirements are already addressed by, and in some cases in conflict with, § 63.8 of the General Provisions (40 CFR part 63, subpart A). The commenter also believes that these requirements will interfere with meeting the 90 percent data availability requirement of § 63.3350(e)(2) of the proposed rule, even though temperature monitoring systems are typically highly reliable. The commenter felt that if § 63.3350(e)(6) of the proposed rule remains unchanged, the data availability requirement must be reduced to 75 percent to allow for all of the monitor downtime resulting from these requirements.

One commenter (IV-D-21) found the proposed requirement for the location of the temperature sensor of particular concern and thought it should be eliminated or conform to the parametric monitoring requirements in the printing and publishing rule (40 CFR part 63, subpart KK). The commenter believed that as long as the sensor is located in the combustion zone, it will provide the necessary assurance of compliance.

Another commenter (IV-D-24) noted that the monitoring requirements for an oxidizer are generally written to address the use of a single temperature monitoring device; however, a large oxidizer has multiple temperature monitoring devices located throughout the combustion zone. In this case, not all the measurement requirements listed in §§ 63.3350(e) and 63.3360(e) of the proposed rule are appropriate. The commenter believes allowance for these characteristics

should be reflected in the language of the final rule by addressing the use of multiple sensors and being less specific about the second sensor used for a validation check.

Three commenters (IV-D-03, 05, and 08) requested the tolerance of the temperature sensor be 1 percent of the temperature value (as opposed to 2.2°C or 0.75 percent as stated in the proposed rule) to ensure consistency with the printing and publishing rule. The commenters added that such a change would have a very small effect on the temperature tolerance, such that the efficiency of the equipment would not be affected (at a temperature of 1,400°F, it would be the difference between 14°F and 10.5°F).

One commenter (IV-D-21) pointed out that thermocouples are supplied with a minimum tolerance of 1 percent, not 0.75 percent, of the temperature value. Another commenter (IV-D-11) asked the EPA to clarify that the tolerance values be consistent with the ASTM E230-72 thermocouple tolerances by adding a  $\pm$  symbol (e.g.,  $\pm 2.2$  degrees Celsius or  $\pm 0.75$  percent).

Three commenters (IV-D-11, 21, and 22) asked that the requirement to shield the temperature sensor system be replaced with the requirements in the closed vent system and control device rule (§ 63.996(c)(1) of 40 CFR part 63, subpart SS) or the printing and publishing rule (§ 63.828(a)(2)(ii) of 40 CFR part 63, subpart KK). One commenter (IV-D-21) asked the EPA to recognize that the use of thermocouple signal wiring placed in separate noise protective conduit or wrapped in specific shielded covering is standard industry practice.

One commenter (IV-D-22) thought that the requirement to shield the sensor system from chemical contaminants and electromagnetic interference was so vague that it would be impossible to demonstrate compliance. In particular, the commenter noted it was unclear what components would be included in a “system,” what are “chemical contaminants”, whether background levels are permissible, and if some type of affirmative continuous compliance assurance system is required.

Several comments were received asking the EPA to delete or revise the requirement to perform the semiannual calibration of temperature sensors in § 63.3350(e)(6)(v) of the proposed rule. Two commenters (IV-D-11 and 21) asked for the deletion because the requirements were unnecessary and expensive, adding that the devices are not currently utilized in the industry. Two commenters (IV-D-03 and 05) asked the EPA to revise the language based on their recommendation to make this paragraph consistent with other rules.

One commenter (IV-D-22) made two points regarding the calibration and validation check requirement. First, if necessary at all, the calibration requirement should be triggered only if the verification test shows a problem. Calibrations require monitor downtimes, introduce small changes into readings, and require records under General Provision requirements. Using a permanently installed second temperature sensor to check the main sensor would indicate whether an electronic calibration is needed and would avoid the cost, burden and outage such a calibration entails. The commenter estimated an incremental cost of at least \$2000/year to do the one additional calibration this requirement would impose.

Second, the commenter felt the 16.7°C tolerance for the temperature sensor validation check was unnecessarily arbitrary, stating that while this was apparently an attempt to reflect the thermocouple tolerance specifications, these specifications do not determine temperature sensor accuracy or precision. The commenter stated there are many other components to a measurement system that introduces variability; however, this variability is minor compared with the temperature of concern in a thermal oxidizer system.

One commenter (IV-D-22) requested the EPA to make clear exactly what equipment constituted a “temperature monitoring device” and thus require calibration under § 63.3350(e)(6)(v) of the proposed rule.

One commenter (IV-D-22) pointed out that manufacturer’s information is not always available for this type of commodity equipment and gave a number of reasons to account for the lack of information. The commenter also pointed out that temperature-measuring systems are generally constructed from a collection of independently manufactured and purchased components. The commenter stated that calibration procedures for these devices are well known and suggested that the requirement, if retained, be revised to require a written procedure which considers the manufacturer’s recommendations. The commenter added that continuous monitoring system practices are already addressed through performance requirements in the General Provisions (40 CFR part 63, subpart A) at § 63.8 and are best left to the individual site to manage and then certify. The commenter argued that this requirement also imposes an unnecessary monitor outage (semiannual) which would either result in a thermal oxidizer and process outage or operation of the thermal oxidizer without monitoring for no beneficial reason.

One commenter (IV-D-21) argued that the requirement for calibration and validation

checks on temperature sensors was unnecessarily complicated and technically unjustified. The commenter pointed out that the industry buys a thermocouple to meet a performance specification per manufacturer's specifications and these instruments cannot be calibrated. Another commenter (IV-D-22) questioned the necessity of the requirement in § 63.3350(e)(6)(vi) of the proposed rule to perform a calibration and validation check any time a temperature sensor exceeds the manufacturer's maximum operating temperature. This commenter thought that these requirements are unnecessary because temperature sensors fail if they are overheated and that failure is immediately apparent to the operators. The root cause of the failure must then be addressed in order to comply with the malfunction requirements of § 63.6 of the General Provisions.

One commenter (IV-D-13) suggested changing the calibration frequency of temperature monitoring devices from semiannual to annual.

Three commenters (IV-D-03, 05, and 08) requested that the calibration and validation checks of § 63.3350(e)(6)(vii) of the proposed rule be deleted because they felt it was redundant with the calibration requirements of paragraphs (v) and (vi). They added that breaking the seal of the unit to conduct such an inspection would cause corrosion in the presence of high humidity. Another commenter (IV-D-21) thought the monthly inspection of "all components" and "all electrical connections" for continuity, oxidation, and galvanic corrosion was an expensive and unnecessary exercise that should be deleted. Several commenters (IV-D-11, 13, and 22) asked the EPA to clarify that it is a visual inspection that is called for and does not require all electrical connections to be disconnected and inspected.

One comment was received that stated § 63.3350(e)(6)(vii) of the proposed rule imposed a significant cost burden and safety risk and would cause HAP emission increases, monitor failures, and may force process, monitor, and control outages. The commenter (IV-D-22) added that it was a counter-productive, unnecessary and wasteful requirement and has no precedent in other regulations. The commenter was also unclear about what "all electrical connections" includes and asked if it is only field connections or does it include control room readout devices, computer data loggers, and strip chart recorders. The commenter suggested that § 63.3350(e)(6)(vii) of the proposed rule be replaced with the standardized requirements in the closed vent system and control device rule (§ 63.996(c)(1) of 40 CFR part 63, subpart SS) or the

printing and publishing rule (§ 63.828(a)(2)(ii) of 40 CFR part 63, subpart KK).

Response: We agree with the comments made concerning this section of the proposed rule, and we revised this section to reduce the monitoring burden. The final requirements are adequate to assure compliance and are consistent with existing rules such as the printing and publishing NESHAP (40 CFR part 63, subpart KK) as requested by the commenters. For example, § 63.3350(e)(9)(ii) of the final rule specifies that the temperature sensor tolerance must “have an accuracy of  $\pm 1$  percent of the temperature being monitored in degrees Celsius, or  $\pm 1^\circ$  Celsius, whichever is greater.”

If you wish to monitor an alternative parameter for an oxidizer, or choose to use a control device other than an oxidizer, then you must apply for and receive approval of an alternative monitoring method under § 63.8(f) of the General Provisions. Through this procedure, you have the option of selecting monitoring appropriate to your specific facility that is the most efficient for your needs while still assuring that continuous compliance is maintained.

We believe that the revised requirements will not interfere with meeting the 90 percent data availability requirement of § 63.3350(e)(2) of the proposed rule. We believe compliance should be over all periods of operation, not just 75 to 90 percent as one of the commenters suggested.

### **§ 63.3350(f) - Capture System Monitoring**

Comment: Two commenters (IV-D-03 and 05) suggested that capture system monitoring plans should only be required for lines that use control efficiency as a means of complying (e.g., a capture plan for a hot melt coating line is not necessary).

Response: We agree with these commenters and have reworded this section (renumbered as § 63.3350(f) in the final rule) to specify that only capture systems used in conjunction with control devices used to achieve compliance are subject to the requirement of developing a capture system monitoring plan.

Comment: One commenter (IV-D-13) suggested adding “reactive coatings” to the text of the first sentence of this paragraph in order to help facilitate adding the “as-emitted” compliance

option.

Response: The EPA agrees that the final rule should be flexible enough to allow a source to demonstrate compliance based on actual emissions. Appropriate changes have been made in the final rule (as discussed in subsequent comment responses) to allow a source to account for organic HAP not actually emitted. However, the EPA does not believe the suggested change is necessary because the changes made to the final rule are general in nature to accommodate any means by which organic HAP are not emitted, not only because of reactive coatings.

Comment: One commenter (IV-D-22) supported the use of a capture system monitoring plan, but recommended adding a mechanism for updating the plan. Also, because revisions may result from responses to malfunctions or process changes, the changes must be effective immediately.

Response: We agree that there should be a mechanism in place to update the capture system monitoring plan. Therefore, we have added § 63.3350(f)(5) to the final rule as follows:

(5) You must review and update the capture system monitoring plan at least annually.

### **§ 63.3350(f)(1) - Elements of the Capture System Monitoring Plan**

Comment: One commenter (IV-D-24) believed that the requirement to identify a parameter that reflects the efficiency of the capture system used for demonstrating ongoing compliance is unnecessary in situations where the capture system meets the criteria for a total enclosure defined in Method 204 and does not have any natural draft openings (NDOs). The commenter added that in this case, the criteria essentially address the physical configuration (location of NDOs, area of NDOs, open/close status of windows and doors) of the enclosure and can be easily demonstrated and documented in the performance test. The commenter argued it is impractical to identify and monitor a parameter which reflects the physical configuration of a capture system.

Response: Method 204 merely compares an enclosure to a set of criteria to determine whether an assumption of 100 percent capture efficiency can be made. Further monitoring is required to assure that the enclosure continues to perform similarly to when the Method 204

determination was made. For instance, additional makeup air could be added to the enclosure which could cause a loss of containment. One possible parameter to monitor is the pressure drop across the enclosure. The pressure drop is directly related to factors such as increased makeup air and additional NDOs that have the potential to affect the containment of the enclosure. We believe such monitoring is practical and is an adequate indicator of performance of the enclosure.

### **§ 63.3350(f)(3) - Conduct Monitoring in Accordance with the Monitoring Plan**

Comment: Two commenters (IV-D-03 and 05) requested that to minimize delays in approval, monitoring plans be approved by the delegated State agency or the Administrator.

Response: We reviewed the capture system monitoring plan requirements and determined that it would be overly burdensome to both the paper and other web coating industry and the EPA for each regulated facility to submit a monitoring plan for approval. Therefore, we removed from the final rule the requirement to submit the monitoring plan for approval. We believe that as long as the minimum requirements for the plan are followed and the plan is updated at least annually, it would not be necessary for us to approve each monitoring plan. We do require, however, that the plan be made available at the request of the permitting authority and that the plan be reviewed and updated at least annually.

Comment: Two commenters (IV-D-03 and 05) requested that a new subsection be added to explain that capture system monitoring plan could be modified if changes occur at the facility. Another commenter (IV-D-22) recommended adding a paragraph to provide that a revised plan may be submitted at any time and its use instituted immediately. This commenter asked the EPA to include language to make clear that the revised plan supercedes all older plans, and should the Administrator comment on the revised plan, revisions to the plan to accommodate the Administrator's concerns would be required within 30 days or the site could revert to the last approved plan. The commenter added that because incorporating plan requirements into a title V permit would prevent making timely changes, the new paragraph should specify that the contents of the plan not be included in the title V permit.

Response: As discussed in the previous comment response, the final rule does not require that the capture system monitoring plan be submitted to the EPA for approval. Therefore, you may make changes to the plan as necessary, as long as you document the changes and keep the plan available for inspection.

Comment: One commenter (IV-D-24) recommended that the concept of a monitoring plan be expanded to address monitoring of control systems. The commenter felt this is particularly needed for solvent recovery devices because there is no recognition in the proposed rule that parametric monitoring can be used for compliance demonstration. The commenter noted a similar option is available in the magnetic tape coating rule at § 63.704(f).

Response: As discussed in previous comment responses, the final rule does allow a source to develop alternative monitoring for control devices as an option to the specific monitoring requirements in the rule. It would need to be submitted to approval in accordance with § 63.8(f) of the General Provisions. We did not propose parametric monitoring requirements for solvent recovery systems since we expect most users of these systems to comply through the use of a liquid-liquid material balance. However, anyone who prefers to use parametric monitoring for solvent recovery may apply for approval under § 63.8(f).

### **§ 63.3360 What performance test methods must I conduct?**

Comment: One commenter (IV-D-13) argued that the performance test methods of the proposed rule (§ 63.3360) put an unnecessary burden on sources by apparently requiring them to perform a variety of initial performance tests, regardless of the method that has been selected to meet the regulation. The commenter believed that although the summary of test methods provided in § 63.3360(a) suggests that one set of tests is used for coating content approaches and another set for those with a capture and control system, the distinction is contradicted in the language of the proposed rule. The commenter asked the EPA to make clear that the source has the option of which performance and compliance option to use and that the source need only conduct performance tests that are applicable to the selection.

Response: We agree that this section does not clearly specify which test methods a

source should use depending on which compliance method has been chosen. The introductory language of paragraphs (c) and (d) has been modified as follows in the final rule to clarify when these test methods are to be used:

(c) *Organic HAP Content.* If you determine compliance with the emission standards in § 63.3320 by means other than determining the overall organic HAP control efficiency of a control device ~~own or operate a paper and other web coating facility~~, you must determine . . . .

(d) *Volatile organic and coating solids content.* If you determine compliance with the emission standards in § 63.3320 by means other than determining the overall organic HAP control efficiency of a control device and you choose to use the volatile organic content as a surrogate for the organic HAP content of coatings ~~own or operate a paper and other web coating facility~~, you must determine . . . .

Comment: Three commenters (IV-D-13, 20, and 28) urged the EPA to incorporate the “as-emitted” compliance option in the final rule to promote new and innovative pollution prevention approaches. The commenters also asked the EPA to recognize that some reactive coatings do not emit all of the organic HAP that are contained in the as-applied coating. The commenters believed that testing regimes can assure compliance with the “as-emitted” approach and recommended that the EPA put a place holder for methods that are subsequently approved. This would allow sources to use the approach as soon as tests are substantiated. The commenters suggested that for manufacturing processes where reactive coatings are used, a far more equitable and environmentally friendly approach would be to set emission limits that are equivalent to the content limits now in the proposed rule.

Response: We did not intend to eliminate the “as-emitted” compliance option from the proposed rule. This option would allow a source to show that the level of emissions actually emitted is less than the total organic HAP contained in the coatings and solvents used as determined through testing or formulation data. This option would be particularly relevant to a source that uses coatings where a portion of the volatile component chemically reacts during the

cure process or is physically bound in the dried film or web such that these volatiles are not emitted.

The final rule has been modified at § 63.3360(g) to require any source desiring to use this option to develop a test protocol that accurately and repeatably measures the amount of organic HAP or volatile matter retained in the coated web after drying/curing, or otherwise not emitted to the atmosphere. This protocol must then be approved by the Administrator. We also modified Equations 4, 5, 6, 7, 8, 12, 14, and 15 in § 63.3370 of the final rule to account for the mass of organic HAP or volatile matter retained in the coated web or otherwise not emitted to the atmosphere when demonstrating compliance with the emission standards.

### **§ 63.3360(a)(2) - Test Methods for Capture and Control System**

Comment: One commenter (IV-D-20) stated that the language of § 63.3360(a)(2) regarding the use of a capture and control system did not anticipate or address the use of control technologies other than oxidizers. The commenter urged the EPA to explicitly note that other established or new control technologies can be used as long as they display equivalent performance to the referenced technology. Another commenter (IV-D-13) suggested that when general requirements for control devices are specified, oxidizers be cited only as an example and that the requirements explicitly note “or equivalent.”

Response: The EPA agrees that the final rule should allow the use of control devices other than oxidizers and solvent recovery. In the final rule, we have added § 63.3350(e)(10) and revised the wording of § 63.3360(e) to make it clear that control devices other than oxidizers and solvent recovery may be used.

Comment: One commenter (IV-D-24) stated that sources using a solvent recovery device are left with no procedures identified for a capture system performance test. The commenter believes this can be traced to the applicability of § 63.3360(f) of the proposed rule being limited to sources complying with the emission limits through the use of oxidizers.

Response: We agree that the capture efficiency test procedure should apply to solvent recovery systems when compliance is demonstrated by means other than a liquid-liquid material

balance. In the final rule, we have revised § 63.3360(f) so that this paragraph references all paragraphs of § 63.3370 that specify compliance demonstration procedures for all capture and control systems, not just oxidizers.

Comment: One comment was received asking the EPA to add a new subsection to provide another exclusion to accommodate web coating lines that have already completed a performance test required by the printing and publishing rule (40 CFR part 63, subpart KK). The commenter (IV-D-24) stated that there is no environmental benefit associated with essentially repeating the same performance test. The commenter noted the EPA has recognized this previously as evidenced by the performance test exclusion in the group I polymers and resins rule (40 CFR part 63, subpart U).

Response: Section 63.7(h) of the General Provisions (40 CFR part 63, subpart A) provides for obtaining approval of waivers of performance testing on a case-by-case basis. One example where a performance test may be waived is where the results of a previous recent performance test conducted for the same affected source shows compliance. However, until a waiver of a performance test requirement has been granted by the Administrator under § 63.7(h), the affected source remains subject to the testing requirement under this subpart.

### **§ 63.3360(c) - Test Methods for Organic HAP Content**

Comment: Two commenters (IV-D-03 and 05) thought that the intent of this section was to state that any one of three procedures can be used to document organic HAP content and requested clarification in the final rule.

Response: We believe the existing language is sufficiently clear and allows the use of any of the three procedures in § 63.3360(c)(1) through (3) of the final rule to determine organic HAP content.

### **§ 63.3360(c)(1) - Method 311 for Organic HAP Content**

Comment: Two commenters (IV-D-03 and 05) pointed out that this paragraph seems to

indicate that Method 311 must be used to determine organic HAP content, otherwise a request to use an alternate test method must be made to the Administrator. The commenters believe this is inconsistent with the preamble and the organic HAP content test procedures in § 63.3360(c) of the proposed rule.

Response: The language in § 63.3360(c) of the final rule clarifies that Method 311, Method 24, or formulation data may be used to determine the organic HAP content of coatings. The specific language in § 63.3360(c)(1) was intended to apply only to alternative test methods used to determine the content of each individual organic HAP component. The revised language clarifies that an approved alternative method may be used to determine organic HAP content instead of Method 311, Method 24, or formulation data.

Comment: Several comments were received regarding Method 311 as the governing means of determining organic HAP content of coatings. In general, the commenters (IV-D-02, 03, 04, 05, 07, 08, 11, and 21) believed this was inappropriate due the lack of reproducibility and significant error with Method 311 and proposed that formulation data be the governing means of documenting percent organic HAP in solution and that Method 311 (or Method 24) be used only to ensure formulation data are in the expected range. One commenter (IV-D-11) believed that the reference to Method 311 be eliminated until the test method has been significantly improved, while another (IV-D-07) stated that the EPA should allow coatings manufacturers to provide their customers with certified product data sheets and noted that the concept has worked well in other rules. Two of the commenters (IV-D-11 and 21) referenced an American Society for Testing and Materials news release concerning the repeatability and reproducibility of Method 311.

Response: We believe Method 311 is adequate for determining the organic HAP content of coatings and is an acceptable means of determining compliance. Method 311 has historically been used as the definitive means of determining organic HAP content of coatings in other rules (for example, see § 63.827(b)(2)(iv) of the printing and publishing rule).

Comment: Two commenters (IV-D-03 and 05) noted that when formulation data are used, de minimis levels of organic HAP may be excluded, but not when Method 311 is used.

Response: We disagree with these commenters. Paragraph 63.3360(c)(1)(i) of the final rule offers the same provisions for de minimis levels of organic HAP for calculations based on Method 311. This paragraph requires that only HAP determined to be present at greater than or equal to 0.1 mass percent for OSHA-defined carcinogens or greater than or equal to 1.0 mass percent for other HAP compounds must be included in the compliance determination.

### **§ 63.3360(c)(2) - Method 24 for Organic HAP Content**

Comment: One commenter (IV-D-15) requested that the Method 24 testing requirements in this paragraph be clarified to state that the owner or operator may at any time submit for approval an alternative test method for determining volatile organic content of the coating material. As currently drafted, § 63.3360(c)(2) of the proposed rule references § 63.3360(d)(1), which only permits an owner or operator to seek an alternative when the required values cannot be determined using Method 24.

Response: The commenter is correct in that you may at any time request approval of an alternative test method. The procedure for seeking approval of an alternative test method is provided in § 63.7(f) of the General Provisions. To avoid possible confusion, the statement in § 63.3360(c)(1) that approval of an alternative test method must be obtained if Method 311 is not used has been deleted.

Comment: Three commenters (IV-D-03, 05, and 08) stated that Method 24 does not speciate for organic HAP. Another commenter (IV-D-15) stated that based on experience, Method 24 overestimates VOC emissions by adding carriers (e.g., methyl ethyl ketone or toluene) that increase the volatility of UV curable components. The commenter requests that the EPA approve the use of American Society for Testing and Materials Method D5403-93 as an alternative to Method 24 for purposes of determining the volatile organic content of coatings and expand the application of this test method to include its use by the resilient flooring industry. One commenter (IV-D-08) stated that Method 24 should not be a governing test method due to accuracy and repeatability problems.

Response: We are aware that Method 24 does not speciate organic HAP and potentially

measures all volatile components of the coating. Method 24 was included in the proposed rule as an alternative to Method 311 when a facility is willing to accept that the volatile content value established by Method 24 may be greater than the actual organic HAP content of the coating. Additionally, Method 24 results govern over formulation data only for volatile organic content. Method 311 is the governing method for organic HAP content as specified in § 63.3360(c)(3) of the final rule.

We would like to point out that ASTM Method D5403-93 has been incorporated by reference into Method 24 (see § 2.6 of Method 24, 40 CFR part 60, appendix A), and Method 24 specifies when the ASTM method may be used.

### **§ 63.3360(c)(3) - Formulation Data for Organic HAP Content**

Comment: Three commenters (IV-D-03, 05, and 08) requested that other EPA test methods or methods already approved by the EPA (such as Method 320) be allowed as options for determining organic HAP content in coatings, and that a general category allowing other test methods, if approved by the Administrator, also be added.

Response: We considered many test methods in the development of the proposed rule. Those voluntary consensus standards we considered and those incorporated by reference were discussed in section X.H. of the proposal preamble at page 55343. Method 320 is a gas phase measurement, and as such is inapplicable for use with liquid coatings. Also, § 63.7(f) of the General Provisions provides for use of alternative test methods.

Comment: One commenter (IV-D-02) stated that the proposed rule was confusing with regard to what is acceptable data for determining organic HAP, VOC, and coating solids content and referred to § 63.3360(c)(3) of the proposed rule which allows the use of formulation data. The commenter asked: (1) whether formulation data includes data supplied in a Material Safety Data Sheet (MSDS); (2) can MSDS information be used if there is no analytical method identified; and (3) since most MSDS present data as a range, can this range of data be used, and if so, should the average or the upper limit be used?

Response: We believe that § 63.3360(c)(3) of the final rule is clear as it stands.

Formulation data as defined in § 63.3360 of the final rule may include MSDS, or any other data provided by the manufacturer of the material, as long as it represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens and equal to or greater than 1.0 percent for other HAP compounds in any raw material used. If a range of organic HAP is presented, it is up to the user to determine the appropriate value. It is important to remember, however, that in the event of any inconsistency between formulation data and Method 311 analyses, the Method 311 data will govern.

#### **§ 63.3360(d) - Test Methods for Volatile Organic and Coating Solids Content**

Comment: One commenter (IV-D-21) thought the EPA should clarify that only affected sources under the proposed rule must make a determination of the as-purchased volatile organic content and coating solids content. The commenter added that the sentence structure should be reversed to clarify that the intent is that the methods set forth in § 63.3360(d) of the proposed rule must be used to make the listed determinations.

Response: The commenter is correct that only affected major sources are subject to the provisions of this rule. In response to a previous comment, we have made a change to the introductory sentence to this section which eliminates the ambiguity that concerned this commenter.

#### **§ 63.3360(e) - Test Methods for the Destruction Efficiency of an Oxidizer**

Comment: Several commenters (IV-D-03, 05, and 08) thought that stack test methods required by the proposed rule should not be limited to EPA Methods 25 and 25A.

Response: Methods 25 and 25A were included because we believed they were the most likely methods to be used. If a source wants to use an alternate method, then § 63.7(f) of the General Provisions (40 CFR part 63, subpart A) provides the procedure for obtaining approval of the alternate method, including verification of the alternate method using Method 301 at 40 CFR part 63, Appendix A.

Comment: Several commenters (IV-D-03, 05, 06, 11, and 21) believed that only inlet temperature monitoring should be required for catalytic oxidizers. Several commenters added that this would ensure the proposed rule is consistent with the precedent set in the printing and publishing rule (40 CFR part 63, subpart KK). Another commenter (IV-D-11) stated the temperature rise across the catalyst bed is not indicative of proper catalytic oxidizer operation.

Response: We believe that inlet temperature and temperature rise across the catalyst bed are appropriate parametric monitoring for assuring continuous compliance, and these provisions are retained in the final rule. In the final rule, however, we have added § 63.3360(e)(3)(ii)(C) which allows you to alternatively monitor the inlet temperature and the catalyst activity level. If you choose this option, you are required to develop an inspection and maintenance plan as detailed in § 63.3360(e)(3)(ii)(D) of the final rule.

Comment: One commenter (IV-D-21) believes that the EPA made no demonstration why the use of Method 25A should be restricted as the EPA has proposed. The commenter argued that Method 25A is almost universally used by State regulators and industry because it yields real time results which are replicable. Method 25 is particularly susceptible to laboratory error and requires weeks to obtain results, which can vary widely depending on how technicians purge sample canisters.

Response: We believe that Method 25A, compared to Method 25, underestimates emissions. Therefore, Method 25A is only acceptable under certain conditions, as specified in § 63.3360(e)(1)(vi)(A) through (D) of the final rule. These conditions are either that the control device is not an oxidizer, or that the control device is an oxidizer and one of the following conditions is met: 1) an exhaust gas volatile organic matter concentration of 50 parts per million by volume (ppmv) or less is required to comply with the standards; 2) the volatile organic matter concentration at the inlet to the control system and the required level of control are such that they result in an exhaust gas volatile organic matter concentration of 50 ppmv or less; or 3) because of the high efficiency of the control device, the anticipated volatile organic matter concentration at the control device exhaust is 50 ppmv or less, regardless of the inlet concentration.

### **§ 63.3360(e)(3) - Oxidizer Operating Parameters for Continuous Monitoring**

Comment: Two commenters (IV-D-03 and 05) recommended that this paragraph be divided into two subsections to add clarity as to which provisions apply to catalytic oxidizers and which apply to other oxidizers.

Response: We agree that the requirements for the two types of oxidizers would be more clear if the commenters' suggestion was incorporated. In the final rule, changes were made to § 63.3360(e)(3) to implement these suggestions.

Comment: In regard to both thermal and catalytic oxidizers, two commenters (IV-D-03 and 05) urged the EPA to allow for minor variations in inlet temperatures below that established during the compliance test. The commenters stated that other federal and State rules allow for a 50°F temperature fluctuation below the temperature established during the compliance test.

One commenter (IV-D-11) requested that the EPA note that the minimum, not the average, temperature established during the performance test should be the operating limit. This commenter also requested that the deviation from the oxidizer minimum temperature requirement be defined as: "any 3-hour average temperature reading of 50°F less than the average 3-hour temperature demonstrated during the compliance demonstration." The commenter stated this would be consistent with the EPA's draft Monitoring Protocols for the Printing Industry.

Response: We disagree with the commenters' request for both a 50°F variation in inlet temperatures established during the compliance test and allowing the use of the minimum temperature rather than the average temperature. The source owner or operator is allowed to select operating parameter limits based on site-specific operating conditions and is able to consider the need for temperature fluctuations in this selection. These provisions allow sufficient flexibility and an additional tolerance for a 50 degree temperature fluctuation is not necessary. Therefore, no changes were made to the final rule in response to these comments.

### **§ 63.3370 How do I demonstrate compliance with the emission standards?**

Comment: Two commenters (IV-D-03 and 05) requested that the order of the multipliers remain consistent from equation to equation. The same commenters noted that Equations 3b and

5 do not appear to be used in the rule and recommended deleting Equations 3a, 3b, 4, and 5 and all references to these equations within the proposed rule. The values  $C_{ahi}$  and  $C_{asi}$  are only used in Equation 5 and since Equation 5 is not needed, these variables are also not needed. The commenter also suggested the deletion of the definition of these variables from § 63.3310 and the reference to them in §§ 63.3370(c)(1)(ii) and 63.3370(c)(2) of the proposed rule and any other references to them.

One commenter (IV-D-21) thought that the equations were unnecessarily complicated and in certain instances, due to variables with overlapping definitions, may actually double-count materials. The commenter submits that it is unnecessary to have separate summations of  $M_i$  and  $M_{ij}$  and urged the EPA to study these equations.

Two commenters (IV-D-21 and 24) thought many of the equations contained parentheses that imply the summations must be done in a specific order (i.e., by each individual coating). The commenter added that the use of parentheses should not artificially limit the methods available and suggested that the extraneous parentheses be deleted from all equations.

Response: We appreciate the commenters' attention to detail concerning the order of multipliers. The order should be consistent throughout the equations and changes were made in the final rule to maintain this consistency.

Concerning the use of Equations 3a, 3b, 4, and 5, we believe the confusion arose because the table in § 63.3370(a) of the proposed rule did not clearly summarize the compliance demonstration procedures for each compliance option. This table has been extensively revised in the final rule to provide affected sources with a "roadmap" through this section for each possible compliance option. The revised table makes it clear when each of the equations is to be used.

We have reviewed the use of parentheses in all of the equations in the proposed rule, and we agree that the parentheses in Equations 6 through 12 that result in summations for the amount of additive materials in each coating are unnecessary. Because these equations calculate an overall average for the affected source, the final result will not be affected by simply adding the mass of materials, organic HAP, or coating solids in each individual coating and additive, as opposed to calculating the appropriate value for each coating (including additives), then summing all of the coatings. Therefore, Equations 6 through 12 have been modified in the final rule to eliminate the unnecessary parentheses.

We also reviewed whether the equations were unduly complicated and whether they double-counted material. We found no instances where the equations could be simplified any further than their current form. While the equations may seem overly complicated for any one given situation, the equations must be applicable to all possible scenarios. Also, we found no instances where material could be double counted. We believe the terms used in the equations are sufficiently defined to avoid any ambiguity that could lead to double counting.

Comment: One commenter (IV-D-19) stated that calculating the value of the monthly allowable organic HAP emissions ( $H_a$  in Equations 15a and 15b) is apparently the only method to determine compliance for facilities with multiple coating lines. While other facilities may have several options to demonstrate compliance, those with multiple control systems have only this one option. The commenter stated that calculating  $H_a$  and the total monthly organic HAP emitted ( $H_e$ ) each month to demonstrate compliance is overly complicated when simply determining that each control system is meeting the emission limit would be adequate. The commenter also found the compliance demonstration for a facility that uses more than one type of control (e.g., solvent recovery followed by oxidation) to be confusing. It appears that once a compliance test has been done on the oxidizer, and shown to exceed the requirements, then the solvent recovery system can be ignored. Compliance would then be based on the oxidizer's efficiency alone. While this makes it easier to demonstrate compliance, it neglects the advantages of treating in series. It also means that the oxidizer must meet the regulatory requirement even if the solvent recovery system is already achieving the emission limit.

Response: We disagree that monthly allowable organic HAP emissions is the only option available to facilities using multiple coating lines. All of the compliance options are available to such a facility. We believe the introductory table to § 63.3370 of the proposed rule may not have properly described the compliance demonstration procedures for all available compliance options. In response to this and other comments, we have extensively revised this table in the final rule. The table now explicitly summarizes the compliance demonstration procedures for all methods of compliance.

When multiple control devices are used in series, basing the compliance demonstration only on the last control device in the series is not appropriate. In this situation, there may be

losses to the atmosphere or other intermediate streams (such as a condensate stream) that may occur after the first control device in series but before the final control device. Testing only the final control device in series would not take these intermediate streams into account and may lead to underestimation of emission. To clarify this point, we added § 63.3360(h) to the final rule as follows:

(h) Control devices in series. If you use multiple control devices in series to comply with the emission standards in § 63.3320, the performance test must include, at a minimum, the inlet to the first control device in the series, the outlet of the last control device in the series, and all intermediate streams (e.g., gaseous exhaust to the atmosphere or a liquid stream from a recovery device) that are not subsequently treated by any of the control devices in the series.

We agree that the compliance demonstration procedures in § 63.3370 of the proposed rule could have been stated more clearly. In response, we have revised this section in the final rule. This revision includes a new introductory table that specifies which paragraphs are to be used for each method of compliance. In addition, the wording of §§ 63.3350 and 63.3370 of the final rule has been changed to make it clear that the provisions for control devices apply only to those control devices being used for compliance purposes. Thus, if a solvent recovery device is being used in series with a thermal oxidizer, the compliance demonstration and monitoring provisions would not apply to the solvent recovery device if the facility does not choose to use the solvent recovery device for compliance purposes. Although, as stated above, all emissions from the coating operation must be included in the compliance demonstration. We believe these changes address the commenter's concerns about the complexity of compliance demonstration procedures for control devices in series.

#### **§ 63.3370(a) - Compliance Demonstration Summary**

Comment: One commenter (IV-D-13) was confused by the references to “monthly average basis.” Monthly averaging was called for in §§ 63.3370(a)(2)(iii) and (iv) and (c)(3) and

(c)(4) of the proposed rule; however, the terminology also appears in other provisions that deal with compliance for each coating. The commenter recommended that “monthly average” only be referenced in those sections that base compliance on averaging across coatings.

Another commenter (IV-D-02) requested clarification regarding the use of monthly averaging when demonstrating compliance by controlling the organic HAP content in coating materials. The commenter stated that § 63.3370(a)(1) of the proposed rule seems to indicate that when compliance is based on as-purchased coating materials, the demonstration is made on the individual coatings with no averaging. The inference is that once every individual coating is shown to be within the emission limit, compliance is achieved and no further determinations or recordkeeping are required. However, in § 63.3370(a)(2) of the proposed rule, the concept of monthly averaging is introduced for as-applied coating materials. The commenter requested that the same rationale used in § 63.3370(a)(1) of the proposed rule be allowed for as-applied materials; that is, if a facility can demonstrate that every coating material meets the emission limit, then monthly averaging is not necessary.

Response: In response to both of these commenters, the reference to monthly averaging in the table in § 63.3370 (a) with respect to individual as-applied coatings was not correct, and this reference has been removed in the final rule. Compliance with the emission limits for as-applied coatings may be made on an individual coating basis or on a monthly average basis.

We appreciate the attention to detail of commenter IV-D-13 concerning terminology usage. We reviewed the proposed rule for inconsistent usage of terminology and made corrections to the final rule where appropriate.

Comment: One commenter (IV-D-21) thought the summary table in § 63.3370(a) of the proposed rule of how to demonstrate compliance was confusing because it did not mirror the particular provisions that followed in subsequent paragraphs. For example, the headings of the subsequent paragraphs were different, the provisions from paragraphs (k) - (o) were not cross-referenced in the summary, emissions were referred to as “HAP” instead of “organic HAP,” and the numbering in the summary failed to correspond with any subsequent paragraphs. In addition, certain compliance options, like § 63.3370(h) of the proposed rule for solvent recovery devices, were not included in the summary table.

Response: As discussed in the response to previous comments, this table has been revised to eliminate such confusion.

### **§ 63.3370(a)(1) - Compliance Demonstration Summary for “As-purchased” Compliant Coatings**

Comment: One comment was received that questioned why the “as-applied” compliance option was not incorporated in the “as-purchased” option. The commenter (IV-D-13) believes the “as-applied” option is a streamlined approach to compliance that has many benefits and the commenter provided a revised summary table to address this issue.

Response: Each facility may choose which compliance demonstration procedure to use. The as-applied option may be used even when the coatings are applied as-purchased. To avoid unnecessary duplication, we did not repeat this compliance demonstration procedure.

### **§ 63.3370(a)(2) - Compliance Demonstration Summary for “As-applied” Compliant Coatings**

Comment: One commenter (IV-D-11) requested that the EPA modify the as-applied monthly average compliance demonstration provisions of § 63.3370(a)(2)(iii) and (iv) of the proposed rule to make it more clear which emission limits apply to new sources and which apply to existing sources.

Response: As discussed in the response to previous comments, this table has been revised to eliminate such confusion.

Comment: One commenter (IV-D-13) noted that “materials” had been used instead of “coating materials.” The commenter recommended that “coating materials” be used to maintain consistency and clarity.

Response: We agree that consistency in terminology is important and have made appropriate changes in the final rule.

### **§ 63.3370(b)(1) - Compliance Demonstration Procedure for “As-purchased” Compliant Coatings**

Comment: One comment (IV-D-21) was received suggesting that Equation 3b should read “VOC organic HAP content,” not “volatile organic content.”

Response: We believe the equation is correct in the proposed rule. This equation uses the terms  $C_{vi}$  and  $C_{vij}$ , which are the volatile organic content of coating materials and additives, respectively. These values are used as a surrogate for the organic HAP content. Therefore, describing this equation as calculating “VOC organic HAP content” would be misleading.

### **§ 63.3370(b)(2) - Compliance with the Emission Limits**

Comment: One commenter (IV-D-21) suggested that § 63.3370(b)(2) of the proposed rule, which specifies when a source is in compliance, was unnecessary and confusing. The commenter stated that if a source only uses materials “as purchased” (i.e., without mixing) under § 63.3370(b)(2) of the proposed rule, they will comply with the requirement at § 63.3370(b)(1) of the proposed rule.

Response: The purpose of § 63.3370(b)(1) was to specify what must be determined before compliance can be demonstrated, then § 63.3370(b)(2) specifies how in fact to demonstrate compliance. While this procedure may seem simplistic for this particular compliance option, we believe the separate steps are necessary and also serve to maintain consistency in format with subsequent paragraphs of this section.

### **§ 63.3370(c) - Compliance Demonstration Procedure for “As-applied” Compliant Coatings**

Comment: One commenter (IV-D-21) thought § 63.3370(c) of the proposed rule could be streamlined and clarified by setting forth only three subsections: (1) all coatings “as-applied” are in compliance with the weight fraction of coating emission limit; (2) all coatings “as-applied” are in compliance with the weight fraction of coating solids emission limit; or (3) all coatings “as-applied” are in compliance with either emission limit.

Response: We believe it is clearer to separate the compliance demonstration procedures for when averaging is and is not used. Consequently, the recommended change was not made.

### **§ 63.3370(c)(3) - Demonstrating Compliance Using a Monthly Average**

Comment: Two commenters (IV-D-07 and 11) indicated that the equations for calculating the monthly organic HAP content may not correctly state the appropriate calculation to demonstrate compliance. For example, the commenters believe that Equation 6 misstates the correct calculation. The commenter believes that this equation implies that the as-applied formulation of each coating needs to be determined. However, this is not the case when determining the monthly average organic HAP content of all materials used at the source.

Response: As discussed in the first comment response to this section of the proposed rule, individual calculations for each coating do not have to be performed when averaging. Equations 6 through 12 of the final rule were modified to remove extraneous parentheses that indicated such individual calculations had to be performed.

### **§ 63.3370(c)(4) - Demonstrating Compliance Using a Monthly Average**

Comment: Two commenters (IV-D-07 and 11) requested that the parentheses in the numerator and denominator of Equation 7 be removed.

Another commenter (IV-D-11) stated this paragraph implies that the as-applied formulation of each coating needs to be determined; however, determining the as-applied formulation of each coating is not required when using the monthly average compliance demonstration method identified § 63.3370(a)(2)(iv) of the proposed rule. In this situation, the monthly average organic HAP content of all materials used at the source is determined on an overall average basis.

Response: As discussed in the response to previous comments, the equations have been modified to remove extraneous parentheses, and the as-applied coating formulation need not be determined.

### **§ 63.3370(c)(5) - Compliance with the Emission Limits**

Comment: One comment was received asking the EPA to modify § 63.3370(c)(5)(ii) of the proposed rule as follows: “The monthly average organic HAP content of all ~~as-applied~~ coating materials applied at an existing source are no more . . . .”

Response: We believe this change would be inappropriate. This paragraph deals with compliance demonstrations for as-applied coatings, as opposed to as-purchased coatings. Throughout this section, terminology usage is very important so that the reader understands which type of coatings is to be included in the compliance demonstration. Under the commenter’s suggested language, it would be unclear whether the coatings included in the determination are as-applied or as-purchased because both are “applied at an existing source.”

### **§ 63.3370(f) - Capture and Control to Achieve Weight Fraction of Solids Applied Limit**

Comment: One commenter (IV-D-21) asked that the references to “as-applied” be removed from this paragraph and § 63.3370(g) of the proposed rule because compliance is based on materials used, not the amount applied.

Response: We understand the confusion that may be created by using the word “applied” in reference to coating solids. In both federal and State rules, this term has often been used to mean the amount of coating solids transferred to the surface being coated, taking into account the transfer efficiency of the application method. In this rule, however, applied simply means that it was used during the compliance period. In order to alleviate any confusion the use of this term may cause, we have added the following definition to § 63.3310(a) of the final rule:

*Applied* means, for the purposes of this subpart, the amount of organic HAP, coating material, or coating solids (as appropriate for the emission standards in § 63.3320(b)) used by the affected source during the compliance period.

### **§ 63.3370(i)(1) - Compliance Demonstration Procedure for Liquid-Liquid Material Balance**

Comment: Several commenters (IV-D-03, 05, 08, and 24) requested that the term

“measure” be replaced with “determine.”

Response: We agree with the commenters and have made the requested change in the final rule.

Comment: One comment (IV-D-13) was received that suggested the following change to the solvent recovery device liquid-liquid material balance procedure in § 63.3370(i)(1)(ii) of the proposed rule: “If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied, or ~~emission of less than the calculated allowable organic HAP~~ organic HAP emission rate based on HAP emitted, determine the organic HAP content . . . .”

Response: As discussed in previous comment responses, we have modified several equations in § 63.3370 of the final rule used to demonstrate compliance to allow a source to take into account volatile matter retained in the coated web or otherwise not emitted to the atmosphere. These changes produce the effect requested by this commenter (that is, including an “as-emitted” compliance option). Therefore, this particular change is not required and was not made in the final rule.

Comment: Two commenters (IV-D-03 and 05) noted that within the preamble, there was a statement concerning the organic HAP that are retained in the coated web. For all calculations but Equation 9, these retained organic HAP are excluded from the compliance calculation. The commenters believed that to be consistent and to reduce any bias against solvent recovery, Equation 9 should also incorporate this exclusion. One comment (IV-D-13) was received that provided a new Equation 10a that included a term to account for the amount of organic HAP retained in the dried film. Similar changes were suggested for Equation 14.

Response: As discussed in the previous comment response and other comment responses, the compliance demonstration equations in § 63.3370 of the final rule have been modified to take into account the amount of solvent retained in the coated web or otherwise not emitted to the atmosphere.

Comment: Three commenters (IV-D-03, 05, and 08) referred to the seventh paragraph

under section V.A. of the proposal preamble which they interpreted as limiting solvent recovery unit efficiency determinations to a liquid-liquid material balance approach. Based on this interpretation, they requested that other methods, such as the use of Method 204, also be allowed for calculating the efficiency of solvent recovery units.

Response: The paragraph under section V.A. of the preamble to the proposed rule discusses the use of a liquid-liquid material balance as an alternative approach for determining compliance if the source uses a solvent recovery system. The proposed rule, as well as the final rule, is clear (see § 63.3370(n)(1) and (n)(2) of the final rule) that a solvent recovery device compliance demonstration can be made either by using a liquid-liquid material balance approach or by using a capture and control system approach. The capture and control system approach for demonstrating compliance for a solvent recovery system would involve the use of Method 204 for determining the capture efficiency.

### **§ 63.3370(k)(3) - Compliance Demonstration Procedures for Oxidizers**

Comment: Three commenters (IV-D-03, 05, and 08) believed that if you are operating an oxidizer within the temperature parameters determined by the compliance test, then it is assumed that the control efficiency meets the emission limit. They argued to require that the temperature parameter be met (§ 63.3370(k)(3) of the proposed rule) and also demonstrate that the emission limits are being met (§ 63.3370(k)(3)(i) of the proposed rule) is redundant.

Response: The commenters' statement is correct that a source complying with the 95 percent control efficiency limit in § 63.3320(b)(1) of the final rule need only show that the continuous operating parameter monitoring values are within the limits established during the initial performance test for an individual capture system and control device. However, there are three emission limits (the other two emission limits are specified in § 63.3320(b)(2) and (3) of the final rule) that the source can choose to meet. Consequently, this section must specifically establish what is required by the source to demonstrate compliance for each emission limit. This is the purpose of § 63.3370(k)(3)(i) - (iii) of the final rule, and as such they are not redundant. Also, a source may choose to determine the overall control efficiency across two or more capture and control systems. In this case, the source must first calculate the organic HAP emissions

from all materials used before control. Then, the source would calculate the emission reduction for each capture and control system. The overall control efficiency would then be determined by combining the results for the individual capture and control systems.

### **§ 63.3370(l) - Compliance Demonstration Procedures for Monthly Allowable Organic HAP Emissions**

Comment: Two comments (IV-D-03 and 05) were received that noted two references in this section, § 63.3370(i)(1)(xi)(D) and (k)(1)(xi)(D) of the proposed rule, do not appear to be correct as they do not exist in the proposed rule.

Response: We appreciate the commenters' attention to detail. The correct references in the final rule are § 63.3370(i)(1)(x)(D) and (k)(3)(iv), respectively. The final rule reflects these changes.

### **§ 63.3370(n) - Compliance Demonstration Procedures for Combinations of Capture and Control**

Comment: Two commenters (IV-D-03 and 05) noted that the reference to § 63.3370(n)(7) of the proposed rule did not appear to be correct as this section does not appear in the proposed rule. Another commenter (IV-D-24) also noted the error and suggested that the likely correct reference is § 63.3370(n)(6).

Response: We appreciate these comments. The correct reference is § 63.3370(n)(6), and the change has been made in the final rule.

Comment: One comment was received regarding the consistency of this paragraph with other paragraphs that describe specific monitoring or performance testing requirements. The commenter (IV-D-24) thought the opening paragraph was problematic because it did not address the use of the control device as a compliance option; rather, it simply refers to the operation of the control device.

Response: The use of a control device is not a compliance option (that is, an emission

limit) specified in § 63.3320. Control devices are one of several means that a source may use to reduce organic HAP emissions in order to achieve an emission limit. We believe the wording of this paragraph is correct as presented in the proposed rule and have made no changes in response to this comment.

### **§ 63.3370(o)(3) - Liquid-Liquid Compliance Demonstration for Intermittently-controllable and Never-controlled Work Stations**

Comment: One comment (IV-D-13) was received suggesting changes to this section to accommodate reactive coatings. Similar changes were suggested for § 63.3370(o)(4) of the proposed rule.

Response: As discussed in previous comment responses, the final rule has been modified to allow a source to take into account the mass of volatile matter retained in the coated web after drying/curing or otherwise not emitted to the atmosphere when determining compliance.

### **§ 63.3400 What reports must I submit?**

#### **§ 63.3400(a) - List of Reports**

Comment: One commenter (IV-D-02) noted that § 63.3400(h) referenced in this paragraph does not exist in the proposed rule.

Response: We appreciate the commenter's attention to detail. The reference in the final rule was changed to § 63.3400(g).

Comment: Several commenters (IV-D-03, 05, and 08) requested that the EPA add a new table to summarize the report requirements noted in § 63.3400 of the proposed rule. The commenters suggested that the table list the regulatory citation, title, frequency, due date, and mailing address.

Response: Unlike the compliance demonstration procedures in § 63.3370 of the final rule, we do not believe that the reporting requirements are so complex that a table is required to

clarify these requirements. Therefore, we did not change this section in response to this comment. We are planning on developing compliance assistance tools which could include the type of information the commenter requests.

Comment: One commenter (IV-D-13) suggested that annual submittal of calibration and compliance reports would be more than sufficient when the source is in compliance, rather than semiannual reports.

Response: For purposes of enforcement, we believe that semiannual calibration and compliance reports are the minimum necessary to ensure that compliance is being achieved on a continuous basis. Therefore, no change in the frequency of these reports has been made in the final rule.

#### **§ 63.3400(b) - Initial Notification**

Comment: Two commenters (IV-D-03 and 05) suggested modifying this paragraph to make it clear that a source that submits an initial notification is not subject to the rule just because of the notification.

Response: The purpose of an initial notification report is to identify sources that could potentially be subject to the requirements of a subpart. Whether a source is subject to the rule is determined by whether it is a major source for HAP emissions and whether it is an affected source under a subpart. We believe the proposed rule clearly and definitively establishes what sources are subject to the rule in §§ 63.3290 and 63.3300. Thus, any further discussion of applicability in this section would only be confusing, and no changes were made to the final rule in response to this comment.

#### **§ 63.3400(c) - Semiannual Compliance Report**

Comment: One commenter (IV-D-13) requested that the compliance report submittal be changed from semiannual to annual. One commenter (IV-D-22) argued that obtaining analysis by the EPA methods for coating samples from the last few weeks of the semiannual period could

take several weeks through an outside laboratory, particularly during holiday periods. The 30-day reporting time proposed for the periodic report would be difficult to meet because of this lag time in getting sample analysis reports, as well as the time to integrate the analysis results into the emissions calculation. The commenter recommended a revision to provide 60 days for filing the periodic report after the close of the semiannual period.

Response: We have carefully considered the commenter's request to provide 60 days, rather than 30 days, for filing the semiannual report after the end of the semiannual period. This requirement is in several coatings rules and other promulgated rules, and we are not aware of any industry problems submitting the semiannual report within the 30-day period. Thus, we continue to believe that 30 days after the close of the semiannual period is sufficient for obtaining coating analysis results and performing the compliance calculations. Therefore, no change has been made in the requirement to submit the report within 30 days after the semiannual period. However, the final rule does include a provision (§ 63.3400(c)(1)(v)) that specifies that each affected source subject to permitting regulations pursuant to 40 CFR part 70 or 71, where the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in the final rule.

### **§ 63.3400(c)(1) - Compliance Report Dates**

Comment: One comment (IV-D-13) was received that suggested the following change to the time period of the initial compliance report specified in § 63.3400(c)(1)(i) of the proposed rule: "The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.3330(a) and ending on ~~June 30~~ or December 31. ~~Whichever date is the first date...~~"

Response: The compliance reports cover each semiannual period after the compliance date. Consequently, the initial compliance report must be submitted at the end of the first semiannual period after the compliance date. If the commenter's recommended change was made, then it would set up the possibility of the first compliance report not being submitted for

nearly a year if the compliance date is early in the calendar year. For example, if the compliance date is in January, then the first compliance report would not be due until December 31, nearly twelve months later. We believe this period of time is unacceptable and have made no change to the initial compliance report timing in the final rule.

Comment: Two commenters (IV-D-03 and 05) requested that the time frame to prepare and submit a compliance report be extended from 31 days to approximately 45 days, due to the extensive amount of data and information that needs to be reviewed. They suggested that the due dates be changed from July 31 and January 31 to August 15 and February 15, respectively.

Response: We believe the monthly time period in the proposed rule is adequate. This same time period has been used in other rules, including the printing and publishing rule (40 CFR part 63, subpart KK), without complications.

### **§ 63.3400(c)(2) - Compliance Report Content**

Comment: Several commenters (IV-D-03, 05, and 08) felt the compliance report section had several conflicting requirements. For example, § 63.3400(c)(2)(v)(C) of the proposed rule for semiannual compliance reports requires that if there is a deviation from an emission limitation you must include information on continuous parameter monitoring systems (CPMS) downtime incidents, other than downtime associated with zero and span and other daily calibration checks. This suggests CPMS downtime incidents might be a deviation, unless they are associated with zero and span and other checks. CPMS or continuous emission monitoring system (CEMS) downtime, however, is not necessarily a deviation. The commenters asked the EPA to clarify this section.

Response: The intent of the proposed provisions in § 63.3400(c)(2)(v)(C) is to require a summary of the total duration of CPMS downtime during the semiannual compliance period. All calibration checks are excluded from the CPMS downtime that must be reported. To clarify this intent and to make § 63.3400(c)(2) of the final rule more understandable with regard to the

reporting of deviations in the semiannual report, we have revised this section in the final rule.

Comment: Two commenters (IV-D-03 and 05) thought the reporting requirement in § 63.3340(c)(2)(iv) of the proposed rule was confusing because it says that if there are no deviations, you must state that there were no deviations and that no CPMS was inoperative or inactive. However, if a CPMS was adjusted or repaired, it would indicate a deviation. The commenters requested that this requirement to report be deleted. If left unchanged, the commenters believed it would be impossible to indicate that no deviations occurred due to the fact that calibration was necessary. Another commenter (IV-D-22) argued that this paragraph can never apply if the temperature sensor calibration, validation, and inspection requirements in §§ 63.3350(e)(6)(iii) and (v)-(vii) of the proposed rule remain. The commenter recommended that if these requirements are not deleted, all outages, calibrations, repairs, and adjustments required in the proposed rule should be exempted from the detailed recordkeeping and reporting requirements.

Response: As discussed in the previous response, we have revised § 63.3400(c)(2) of the final rule to clarify the requirements for deviation reporting in the semiannual compliance report. The requirements to report (1) the date and time that each CEMS and CPMS was inoperative and (2) the date, time, and duration that each CEMS and CPMS was out-of-control remain in the final rule. These and other requirements for the operation and maintenance of continuous monitoring systems are in the General Provisions (40 CFR 63.8(c)) and are applicable to this subpart.

Comment: Two commenters (IV-D-03 and 05) suggested that the compliance report content requirements of § 63.3400(c)(2)(v) of the proposed rule apply only to CPMS equipment. The commenters also suggested that if a facility were using both CPMS and CEMS equipment then both §§ 63.3400(c)(2)(v) and (vi) of the proposed rule would apply.

Response: The compliance report specified under § 63.3400(c)(2)(v) of the final rule applies whenever there is a deviation at the source, not just when the deviation is related to CPMS equipment. For example, a source using all compliant coatings that subsequently discovers that one of the coatings was actually out of compliance would have a deviation. This

deviation would have to be reported under this section. Because the deviation report covers a broader range of situations than that suggested by the commenter, the suggested change was not made to the final rule. Changes made to this section of the final rule clarify which requirements apply.

Comment: One commenter (IV-D-22) noted that reporting “downtime associated with zero and span and other daily calibration checks” is excluded from CPMS downtimes to be reported in the semiannual report. However, for thermal oxidizer monitoring and probably capture system monitors, there is no daily check requirement, and this language would not exclude less frequent checks. The commenter recommended deleting the word “daily” from § 63.3400(c)(2)(v)(C) of the proposed rule.

Response: We agree with the commenter that all calibration checks were supposed to be excluded from the deviation report. Because calibration of CPMS may occur other than daily, we have made this change to the final rule.

Comment: Two commenters (IV-D-03 and 05) thought that the requirement for a description of “any changes” in CEMS, CPMS, or controls in the semiannual compliance report was too general and they asked the EPA to either clarify or delete this requirement.

Response: We believe that it is important to document changes that are made to CEMS, CPMS, and control devices because these changes can be indicative of operational and maintenance problems. Because of the site-specific nature of these systems, it is not possible to specifically list all the possible changes that could be made. Since actual changes made to these systems in all likelihood will be infrequent, we do not believe this reporting requirement is overly burdensome.

#### **§ 63.3400(e) - Notification of Compliance Status**

Comment: One commenter (IV-D-21) requested clarification that the required notification of compliance as specified in § 63.9(h) of the General Provisions (40 CFR part 63, subpart A) is a one-time requirement, not a continuous notification requirement as suggested by

the preamble every time a source uses a different method of compliance.

Response: We agree with the commenter's interpretation that the notification of compliance status required in § 63.9(h) is a one-time requirement. However, you are required to submit semiannual reports that include compliance reports (see § 63.3400(c) of the final rule). While the compliance reports in the semiannual report detail the compliance status of the source for the previous semiannual period, these reports are not the same as the notification of compliance status required under § 63.9(h).

### **§ 63.3400(f) - Performance Test Reports**

Comment: Two commenters (IV-D-22 and 24) noted that § 63.3400(i) as referenced in the proposed rule does not exist, and the reference should probably be to § 63.3400(e).

Response: We appreciate the commenters' attention to detail. The correct reference is § 63.3400(e) as noted by the commenter, and the final rule has been changed accordingly.

### **§ 63.3400(g) - Startup, Shutdown, and Malfunction Reports**

Comment: One commenter (IV-D-22) believed that the startup, shutdown, and malfunction (SSM) requirements of the General Provisions (40 CFR part 63, subpart A) that apply when capture and control systems are used (§§ 63.6(e)(3)(iv) and 63.10(d)(5)(ii) of the proposed rule) imposed an unnecessary and wasteful immediate reporting (2-day phone notice followed by 7-day letter) requirement. The commenter pointed out that other rules (e.g., the Hazardous Organic NESHAP, 40 CFR part 63, subparts F and G) have overridden this paragraph to only require reporting of deviations from the SSM plan in the periodic report. The commenter recommended revising § 63.3400(g) to eliminate the 2-day and 7-day reporting requirements and to require that the information be included in the periodic report.

This commenter also argued that as long as the capture system and control device were operating and the monthly emission limit was met, there was no reason to incur the startup, shutdown, and malfunction reporting burden imposed by § 63.10(d)(5) of the General Provisions. The commenter requested that the definitions in the General Provisions be revised

for the purposes of this subpart and recommended adding startup and shutdown definitions to this subpart.

Response: The startup, shutdown, and malfunction 2-day and 7-day reporting requirement serves purposes beyond just reporting a situation where excess emissions may have occurred. It is necessary only when the owner or operator does not follow the startup, shutdown, and malfunction plan. If the plan is followed, then the startup, shutdown, or malfunction may be reported in the semiannual compliance report, and an immediate report is not required. We believe this General Provisions requirement is reasonable for paper and other web coating sources and, therefore, have not revised the final rule in response to this comment. In addition, we believe the definitions of startup, shutdown, and malfunction presented in § 63.2 of the General Provisions are adequate and no changes to them were made in the final rule.

### **§ 63.3400(g)(1) - Startup, Shutdown, and Malfunction Report Content**

Comment: Two commenters (IV-D-03 and 05) requested the term “not completely consistent with” be modified because it was ambiguous. Also, the commenters believed that reporting on “inconsistent” procedures should take place during the regular semiannual startup, shutdown, and malfunction report, rather than immediately.

Response: The reporting requirement in § 63.3400(g)(1) of the final rule was intended to mirror the requirement in § 63.10(d)(5)(ii) of the General Provisions (40 CFR part 63, subpart A). However, the General Provisions section does not include the word “completely,” and this appears to be the source of the ambiguity discussed by the commenters. In order to maintain consistency with the General Provisions, the word “completely” has been deleted from this paragraph in the final rule. However, we see no reason to deviate from the immediate reporting requirements in the General Provisions.

### **§ 63.3410 What records must I keep?**

#### **§ 63.3410(a) - Monthly Records**

Comment: Two commenters (IV-D-03 and 05) thought it unlikely that all of the requested information for which monthly records are required would change from month to month. The commenters believed that since a single set of data may be valid for several years, only a single copy of this data should be required, not one copy per month. The other commenter (IV-D-21) requested clarification on what the EPA means by “monthly basis.” Also, the commenter requested additional clarification that electronic files are a satisfactory means for maintaining these records.

Response: We disagree with the commenters’ interpretation that this paragraph requires a copy of all compliance information to be maintained for each month. “Monthly basis” simply means that the source must maintain records of all information used each month to demonstrate compliance, but this information need not be duplicated each month.

The rule does not specify the format in which records must be maintained. Electronic files may be satisfactory, but supporting information must also be available. For example, a facility could maintain a spreadsheet to calculate emissions from coatings. Necessary information to make emissions calculations would include the organic HAP content and density of the coating. The facility would have to maintain records of the documents from which these values were obtained, such as the manufacturer’s product data sheet. The values in the electronic database alone would not be enough to satisfy the recordkeeping requirements of § 63.3410 of the final rule.

### **§ 63.3420 What authorities may be delegated to the States?**

Comment: Three commenters (IV-D-03, 05, and 08) thought a new subsection was needed to clarify that all subsections in this rule, other than those noted in § 63.3420(b) of the proposed rule, shall be delegated to a State or local permitting agency provided it has title III authority.

Response: Delegation of authority to State, local, and territorial agencies and Indian tribes (S/L/T) is at the discretion of the EPA. No delegation of authority is mandatory as suggested by these commenters. The EPA published a *Federal Register* notice (65 FR 55810, September 14, 2000) amending our procedures for delegating HAP standards and other

requirements to S/L/Ts. At page 55840 of this notice, we listed those sections of the General Provisions (40 CFR part 63, subpart A) that may be delegated to S/L/Ts (Category I Authorities). Only certain authorities may be delegated to S/L/Ts; therefore, stating that all other sections of the rule may be delegated to S/L/Ts would be too broad. No changes were made to the final rule in response to this comment.

Comment: Two commenters (IV-D-03 and 05) requested that delegated State agencies be given the authority to review and approve alternate performance test methods.

Response: The delegation of authority was discussed in general in the previous comment response. Approvals to major alternatives to test methods under § 63.7(e)(2)(ii) and (f) of the General Provisions (40 CFR part 63, subpart A) cannot be delegated.

#### **§ 63.3421 [Reserved]**

Comment: Two commenters (IV-D-03 and 05) requested that the EPA move the “Tables” section into § 63.3421 (a reserved section in the proposed rule). The commenters thought this change would make it is easier to reference the table within the proposed rule.

Response: The tables were revised in the final rule to number and reference them to the section of the rule in which they appear. Thus, each table can be readily referenced and the change requested by the commenters is not necessary.

#### **Table 1 to Subpart JJJJ (Table 2 of the final rule)**

Comment: One commenter (IV-D-22) stated that §§ 63.1(b)(3) and 60.10(b)(3) of the General Provisions (40 CFR part 63, subpart A) require all sources of HAP, not just those in the source category, to maintain records that this rule does not apply to them.

Response: Paragraph 63.10(b)(3) requires an owner or operator to maintain records of applicability determinations. The owner or operator referred to in this paragraph is the owner or operator of an affected source as specified in § 63.10(b)(1), not any source as interpreted by the commenter. Thus, each paper and other web coating facility has to maintain records of the

applicability determination they made for this rule. Facilities that do not have an affected source (i.e., do not have a paper or other web coating line) do not have to conduct an applicability determination for this rule.

Comment: Three commenters (IV-D-03, 05, and 08) requested that the EPA add an explanation to Table 1 of the proposed rule stating that § 63.10(d)(4) and (5) apply except for the alternative reporting requirements in § 63.3400(g)(1) of the proposed rule.

One commenter (IV-D-22) noted that § 63.10(e)(4) of the General Provisions was missing from Table 1 of the proposed rule. The commenter recommended adding § 63.10(e)(4) to Table 1 of the proposed rule and designating it as a “No” since COMS are not required under the proposed rule.

Response: The proposed rule does not change the startup, shutdown, and malfunction report timing requirements. Paragraph 63.3400(g)(1) of the final rule mirrors the reporting requirement contained in § 63.10(d)(5)(ii) of the General Provisions. The “report” reference in § 63.3400(g)(1) is either the 2-day or 7-day report required in § 63.10(d)(5)(ii), not a new report or report timing requirement. Consequently, no changes to the entry for § 63.10(d)(4) and (5) in Table 2 of the final rule are necessary.

We agree that Table 1 of the proposed rule inadvertently omitted § 63.10(e)(4). The commenter’s suggestion that the applicability of this paragraph be designated “No” is correct, and this change has been made to this table, which is now Table 2 of the final rule.

## 2.2 MISCELLANEOUS COMMENTS

Comment: Several commenters (IV-D-03, 05, 08) pointed to the definition of stationary source from the Clean Air Act (CAA) as implying that any two facilities located on contiguous property and under common control would be subject to the proposed rule together as one facility. The commenters requested that such sources be governed consistently with title V (i.e., separate compliance demonstration for each facility).

Response: The 1990 Amendments to the CAA define major source of HAP as “any stationary source or group of stationary sources located within a contiguous area and under

common control that emits or has the potential to emit, considering controls, in the aggregate, 10 tons per year or more of any one HAP or 25 tpy or more of any combination of HAP.” This definition applies regardless of the Standard Industrial Classification (SIC) codes of the emission sources located on the contiguous property that is under common control. Our definition of facility in § 63.3310 of the final rule incorporates this concept. In § 63.3290 of the final rule, we specify that the rule covers new and existing facilities, at which web coating lines are operated, that are major sources of HAP. (That is, have the potential to emit 10/25 tpy of HAP.) Therefore, our identification of major source in this rule is consistent with the statutory requirement for major stationary source of HAP. In § 63.3300 of the final rule, we identify the affected source as the collection of all web coating lines at the facility, with some exceptions. The emission standards and other requirements of the rule apply only to the affected source, which is part of the facility (that is, the major source of HAP).

Title V at section 501 of the 1990 Amendments to the CAA defines major source as any stationary source or any group of stationary sources located within a contiguous area and under common control that is either a major source as defined in section 112 or a major stationary source and defined in section 302 or part D or title I. This is the same definition of major source for section 112 that is found in § 70.2. The regulations at § 70.3(a)(1) specify that the title V permit applies to any major source. Paragraph 70.3(a)(2) specifies that title V applies to any source, including an area source, that is subject to a standard or requirement under section 112 of the CAA. Therefore, major source of HAP is defined consistently in the CAA, part 70, and in § 63.3290 of the final rule. For clarity and simplicity, we defined the major source of HAP as the facility in § 63.3290 of the final rule. By definition in the paper and other web coating rule (see § 63.3310), all of the stationary sources located within a contiguous area and under common control constitute a single facility.

Because of the applicability requirements of part 70, the title V permit would apply to the entire facility. However, as § 63.3300 states, the emission standards, monitoring, recordkeeping, reporting, and other requirements of the rule apply only to the affected source, which is the collection of all web coating lines at the facility. The affected source must meet the emission standards in § 63.3320 of the final rule, for which compliance must be demonstrated according to the requirements in § 63.3370 of the final rule. These emission standards and requirements are

independently enforceable by us regardless of title V. However, the title V permit terms and conditions must include the applicable requirements, which are the emission standards in § 63.3320, as well as any associated requirements in other sections of the rule. The title V permit must also contain compliance demonstration requirements for the applicable requirements, which are specified in § 63.3370. The parts of the facility that are not the affected source are also subject to title V, but would not have any applicable requirements pursuant to the final rule. In any case, the request for a separate compliance demonstration is moot because the title V permit must include terms and conditions for demonstrating compliance for each applicable requirement to which the major source is subject.

To clarify that the emission standards apply to the affected source, we have revised § 63.3320(b)(1) through (3) to indicate existing affected source and new affected source.

Comment: One commenter (IV-D-04) provided an example of a manufacturer with multiple plants with identical web coating operations, with identical emissions, that have no appreciable HAP emissions. The commenter stated that if those web coating operations are located at facilities with major source HAP emissions from other processes, they are covered by the proposed rule. However, the same web coating operations, with the same emissions, located at facilities with no other HAP emission would not be covered by the proposed rule. Similarly, the proposed rule would not cover a web coating operation that has the potential to emit nine tons of a single HAP and 24 tons of combined HAP per year at a facility with no other HAP emissions. However, the rule would cover web coating operations that emit no HAP at all if the facility's other operations are major for HAP. The commenter felt this was inappropriate.

Response: The situation envisioned by the commenter is correct. Collocated sources will be subject to the rule even if the potential to emit of the affected source is below the major source thresholds. Section 112(a)(1) of the CAA specifies that a major source is “any stationary source or group of stationary sources located within a contiguous area and under common control” that have to potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP. The situation presented by the commenter describes a group of stationary sources located within a contiguous area and under common control; therefore, the paper and other web coating rule would apply to such a facility if the overall emissions for all the

contiguous sources met the major source emission thresholds.

Comment: One comment was received which suggested that the preamble erroneously stated that the proposed rule does not apply to printing and publishing operations covered by 40 CFR part 63, subpart KK. The commenter (IV-D-20) believes that the regulatory language exempts such operations only if the owner or operator chooses to be covered by subpart KK.

Response: The preamble is correct that sources subject to the printing and publishing rule (40 CFR part 63, subpart KK) are not subject to the paper and other web coating rule. The commenter is apparently confusing this with the provision in the printing and publishing rule that allows a facility to include stand-alone coating equipment within the printing and publishing affected source (§ 63.821(a)(3)).

Comment: One commenter (IV-D-15) was concerned that the proposed rule may be used inappropriately to establish standards under section 183(e) of the CAA for this source category. The commenter requested that the EPA clarify that the proposed rule does not reflect EPA decisions for any standards developed under section 183(e).

Response: We may use some of the information provided by the paper and other web coating industry for this NESHAP in developing any future standards for related categories under section 183(e). However, decisions regarding any future standards proposed under section 183(e) will be made separately based on a separate data gathering and analysis effort.

Comment: One commenter (IV-D-19) pointed out that solvent recovery is a form of source reduction (referring to the Pollution Prevention Act (PPA)). The commenter believes that the PPA charges the Administrator to consider “the effect of its existing and proposed programs on source reduction efforts and shall review regulations . . . prior to . . . their proposal to determine their effect on source reduction.” Another commenter (IV-D-14) provided discussion about how the EPA could provide sources with incentives to use pollution prevention approaches that will produce emission reductions by including appropriate regulatory language in rules that removes qualifying sources from the application of the EPA’s “once in, always in” policy.

Response: We have developed, through discussions with State and Territorial Air

Pollution Program Administrators & Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), a tentative solution that will require changes in the Part 63 General Provisions or individual MACT rules rather than a change in our policy memo on this subject. We have been working to develop regulatory options that would allow qualifying sources to satisfy the MACT requirements through innovative streamlined approaches after the compliance date if they achieve emission reductions equivalent to or better than MACT levels of control through pollution prevention (P2) measures. The regulatory options under consideration will include components that meet the legal requirements of the CAA and still resolve the issues regarding P2. After concluding discussions of the options, we intend to develop the appropriate regulatory language and propose changes to the Part 63 General Provisions or existing rules in the near future. No changes were made to the final paper and other web coating rule to address this issue.

Comment: One commenter (IV-D-21) requested clarification regarding installation of a new coating line and the definition of the term “reconstruction.” The commenter believed that it is the EPA’s interpretation that reconstruction under § 63.5 of the General Provisions would be triggered if the cost of the new line exceeds 50 percent of the present value of the new line and the existing line.

Response: The term “reconstruction” is defined at § 63.2 of the General Provisions. The definition is based on replacement of components of a source. In the proposed rule, the affected source is “the collection of all web coating lines” at a facility (§ 63.3300). Thus, the cost thresholds referenced by this commenter would apply to the entire affected source, not just the cost of the reconstructed coating line (unless, of course, the reconstructed coating line is the only web coating line at the facility).

## 2.3 COMMENTS ON THE ENVIRONMENTAL, ENERGY, AND ECONOMIC IMPACTS OF THE PROPOSED RULE

Comment: Two commenters (IV-D-03 and 05) noted that recent reduced oil availability and increased market costs should have led to more emphasis on natural resource and energy

conservation. These commenters argued that the use of solvent recovery should be encouraged by the EPA. Subcategorizing this control method and utilizing the same limits (95 percent control) for both existing and new sources would be essential to promote the use of solvent recovery.

One commenter (IV-D-16) stated that the EPA failed to adequately take into account the relative costs of thermal oxidation as compared to solvent recovery. Increased shipping costs for replacement solvents should have been included in the analysis.

Four commenters (IV-D-03, 05, 16, and 19) thought that the EPA did not sufficiently consider the beneficial secondary environmental impacts of solvent recovery technologies such as conservation of petroleum products, reduced emissions from transportation of petroleum products, and reduced risk of spills.

Response: We believe our analysis based the environmental, energy, and economic impacts of the proposed rule on the most likely emission control measures to be used by the POWC industry. While we agree that there are a number of other emission control measures that could be used, we believe they do not have the broad acceptance or use currently demonstrated throughout this source category as those chosen for the impact analyses. We agree that solvent recovery is a viable emission control measure and encourage its use. The proposed rule does not preclude the use of solvent recovery; on the contrary, it is specifically included in the compliance demonstration provisions of § 63.3370 of the final rule.

#### 2.4 COMMENTS ON REGULATORY FLEXIBILITY ACT (RFA), AS AMENDED BY THE SMALL BUSINESS REGULATORY ENFORCEMENT FAIRNESS ACT OF 1966 (SBREFA), 5 U.S.C. 601, et seq.

Comment: One commenter (IV-D-17) felt that the eventual sales effects on large facilities and those of small, newer facilities is unfair. The commenter said that according to the EPA's estimates, inequity is balanced (or economically justified) because of the overall distribution of cost and that 49 percent of the industry which represents small facilities will be absorbing only 25 percent of the total cost. The commenter stated that this equates to 0.16 percent of sales for small facilities, while it represents only 0.03 percent of sales for large

facilities.

Response: While it is true that the compliance cost as a percentage of sales is higher for small firms than for large firms, it should be recognized that the median impact on small firms of 0.16 percent is still relatively small by itself. The economic impact analysis indicates that impacts to affected small firms are, except in one case, relatively low in terms of effects on output and profits. In the one case that is an exception, the firm has very low profitability in the baseline and therefore is experiencing economic stresses that are unrelated to implementation of this rule. The percentage of compliance costs incurred by small firms is shown to provide insight into how compliance costs are distributed among affected firms, not to show that the difference in impacts to small firms compared to large firms is justified as “equitable.” Finally, it should be noted, as mentioned in the preamble, that we developed this rule to minimize small firm impacts to the extent possible while remaining consistent with the requirements of the Clean Air Act.

Comment: One commenter (IV-D-22) argued that the proposed recordkeeping and reporting requirements impose significant costs and burdens that do not appear to have been addressed in the Regulatory Flexibility Act analysis or the Paperwork Reduction Act analysis. The commenter believes the additional costs imposed by these requirements would easily outweigh all the ongoing monitoring, recordkeeping, and reporting costs currently included in the Information Collection Request (ICR) for sources using a thermal oxidizer for compliance. The commenter requested that if these requirements are maintained, all of these analyses be redone and a new ICR submitted.

Response: The ICR for the final rule has been revised to account for all the changes made to the monitoring, reporting, and recordkeeping requirements of the proposed rule in response to public comments. The cost of these requirements are fully considered in the economic impact analysis.

## 2.5 COMMENTS ON THE NATIONAL TECHNOLOGY TRANSFER AND ADVANCEMENT ACT

Comment: Two comments were received regarding American Society of Mechanical Engineers, American Society for Testing and Materials, International Standardization Organization, and EPA test methods. The commenters (IV-D-3 and 05) believed that all of the test methods noted could potentially be useful for compliance demonstration, but only if § 63.3360(c) of the proposed rule is reworded.

Response: The preamble to the proposed rule at page 55343 discussed the voluntary consensus standards considered during the development of the proposed rule. Included in this discussion was the final decision by the EPA on whether each test method was applicable to the proposed rule. Because some of these test methods were deemed not practical for use or are still under development or review by the EPA, they were not incorporated into the proposed or final rule. The preamble also listed those test methods already incorporated by reference into Method 24 and Method 311. These incorporated methods may be used as specified in Method 24 or Method 311.

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