ENVIRONMENTAL PROTECTION AGENCY
40 CFR Parts 9, 60 and 63

[AD- FRL ]
RIN

# National Emission Standards for Hazardous Air Pollutants Final Standards for Hazardous Air Pollutant Emissions From Magnetic Tape Manufacturing Operations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates final standards that limit the emissions of hazardous air pollutants (HAP) from existing and new magnetic tape manufacturing operations that are located at major sources. These final standards implement section 112(d) and 112(h) of the Clean Air Act as amended in 1990 (the Act). The purpose of this final rule is to protect the public by requiring all new and existing major sources to control emissions to the level corresponding to the maximum achievable control technology (MACT).

The EPA is also finalizing performance specifications for continuous emission monitors (CEM's) for volatile organic compounds (VOC) and gas chromatographic CEM's.

DATES: Effective Date. [Insert date of publication of this final rule]

Judicial Review. Under section 307(b)(1) of the

Act, judicial review of national emission standards for hazardous air pollutants (NESHAP) is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this final rule. Under section 307(b)(2) of the Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

ADDRESSES:

Docket

Docket No. A-91-31, containing information considered by the EPA in developing the promulgated NESHAP for magnetic tape manufacturing operations is available for public inspection and copying between 8 a.m. and 5:30 p.m., Monday through Friday, except for Federal holidays, at the EPA's Air and Radiation Docket and Information Center, Room M1500, U. S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460; telephone (202) 260-7548. A reasonable fee may be charged for copying.

Background Information Document

A background information document (BID) for the promulgated NESHAP may be obtained from the docket; the

U. S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777; or from National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161, telephone (703) 487-4650. Please refer to "Hazardous Air Pollutant Emissions from Magnetic Tape Manufacturing Operations--Background Information for Promulgated Standards" (EPA-453/R-94-074b). The BID contains a summary of the public comments made on the proposed magnetic tape manufacturing standard and EPA responses to the comments.

FOR FURTHER INFORMATION CONTACT: Ms. Gail Lacy of the Coatings and Consumer Products Group, Emission Standards Division (MD-13), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-5261. For more information on Performance Specifications 8 and 9 contact Mr. Bill Grimley of the Source Characterization B Group, telephone (919) 541-1065, and Ms. Rima Dishakjian of the Source Characterization A Group, telephone (919) 541-0443, respectively, in the Emissions, Monitoring and Analysis Division (MD-14), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION: The information presented in this preamble is organized as follows:

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## I. Background

Section 112(b) of the Act lists 189 HAP and requires the EPA to establish national emission standards for all major sources and some area sources emitting those HAP. On July 16, 1992 (57 FR 31576), EPA published a list of major and area sources for which NESHAP are to be promulgated, and on December 3, 1993 (58 FR 83941), EPA published a schedule for promulgating those standards. The magnetic tape manufacturing source category is included in the list of major sources to be regulated for which the EPA is to establish national emission standards by November 1994.

This NESHAP was proposed in the Federal Register on March 11, 1994 (59 FR 11662). A public hearing on the proposed rule was held on April 13, 1994. In addition, 17 letters commenting on the proposed rule were received.

## II. Summary

### A. Summary of Promulgated Standards

The final rule applies to major sources performing magnetic tape manufacturing operations, which is the affected source subject to these standards. The standards do not apply to research and laboratory facilities or to owners or operators whose magnetic tape production on a coating line is 1 percent or less of total production from that coating line (in terms of square footage coated) in any 12-month period.

Table 1

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summarizes the standards for magnetic tape manufacturing operations. In general, an overall HAP control efficiency of at least 95 percent is required for emissions from each storage tank, piece of mix preparation equipment, coating operation, waste handling device, and condenser vent in solvent recovery. If an owner or operator uses an incinerator to control these emission points, an outlet HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound may be met instead of achieving 95 percent control, as long as the efficiency of the capture system is 100 percent. If a coating with a HAP content no greater than 0.18 kilograms per liter (kg/L) of

coating solids is used for a coating operation, that coating operation does not require further control. Owners or operators may choose to control HAP emissions from all coating operations at a source by an overall HAP control efficiency of at least 97, 98, or 99 percent in lieu of controlling 10, 15, or 20 HAP solvent storage tanks, respectively, that do not exceed 20,000 gallons each in capacity.

Owners or operators of existing affected sources are required to comply with these standards within 2 years after the effective date, unless a new control device is needed to comply with the requirements of § 63.703(c) or (g). If a new control device is needed, an owner or operator of an existing affected source must comply within 3 years of the effective date. All new and reconstructed sources must comply immediately upon startup.

Owners or operators of affected sources must demonstrate initial compliance following the test methods and procedures of § 63.705 unless the criteria of § 63.705(a)(1), (2) or (3) are met. Continuous compliance is demonstrated by conducting monitoring in accordance with § 63.704(c). Continuous compliance monitoring requirements are summarized in Table 2

TABLE 2. SUMMARY OF CONTINUOUS MONITORING REQUIREMENTS

| Control/capture technique | Monitoring requirements | |
|---|---|---|
| Any add-on air pollution control device (APCD) | § 63.704(c)(3): | Continuously monitor inlet and outlet HAP or VOC concentration or continuously monitor outlet HAP or VOC concentration; or |
| | See below: | If using condenser or incinerator as APCD, can perform alternate monitoring. |
| | § 63.704(c)(10): | Monitor bypass lines that could divert flow from APCD, or install car-seal or lock-and-key. |
| Solvent recovery device controlling only coating operations | § 63.704(c)(9): | Perform material balance over each 7-day period. |
| Condenser | § 63.704(c)(4): | Continuously monitor temperature of vapor exhaust stream. |
| Thermal incinerator | § 63.704(c)(5): | Continuously monitor combustion tem |
| Catalytic incinerator | § 63.704(c)(6): | Continuously monitor gas temperature and temperature across the catalyst bed. |
| Capture system | § 63.704(c)(7): | Continuously monitor site-specific ope parameter established according to § 63.704(b)(6). |
| Steam stripper | § 63.704(d)(1): | Continuously monitor steam-to-feed ra |
| Steam stripper/other control technique | § 63.704(d)(2): | Monthly monitoring of VOHAP concentration. |
| Baghouse/fabric filter | § 63.704(e): | Continuously monitor ventilation airfl daily visible emission testing. |
| Low-HAP coating | § 63.704(c)(8): | Determine HAP content of coating use |
| Other control techniques | § 63.704(f): | Submit monitoring plan to Administra approval. |

. Compliant monitoring parameter values are established in accordance with § 63.704(b), which also contains procedures to determine the compliant outlet

HAP concentration during periods when coating operations are not occurring.

Owners or operators of affected sources shall maintain records and submit reports in accordance with §§ 63.706 and 63.707. Records are consistent with those required by subpart A, and also include records associated with freeboard ratio measurement, bypass valve monitoring, material balance calculations, and demonstrating compliance with the low-HAP coating limit. Reports include an initial notification, a notification of compliance status, compliance summary reports, a report to establish an alternate HAP outlet concentration limit for periods when the coating operations are not occurring, performance test results, and alternate compliance and monitoring reports.

The final rule also includes provisions, in § 63.703(b) and (h) that an owner or operator of a magnetic tape manufacturing operation may choose to be subject to in order to obtain a Federally enforceable limit on their potential to emit HAP. These provisions do not preclude an owner or operator from using avenues other than this subpart to limit their potential to emit HAP. Moreover, this subpart does not apply to any plant that is already an area source without these provisions.

The provisions would require limits on the usage of HAP in the magnetic tape manufacturing operation over 12-month periods as surrogates for potential emissions. Recordkeeping and reporting would be required to demonstrate compliance with the usage limits.

## B. Summary of Major Changes Since Proposal

In response to public comments received and additional analysis performed by EPA, the following major changes have been made to the final rule since proposal:

1. The rule does not apply to research and laboratory facilities or to owners or operators whose magnetic tape production on a coating line is 1 percent or less of total production from that line in terms of square footage coated in any 12-month period.

2. Leader tape production is not included as part of magnetic tape manufacturing operations.

3. The rule does not apply when nonmagnetic tape products are manufactured in affected sources.

4. The applicability and intent of the HAP usage limits have been clarified in § 63.703(b) and (h).

5. The final rule [§ 63.703(c)(4)] allows owners or operators of affected sources the option of controlling coating operations more stringently in lieu of controlling HAP emissions from solvent storage tanks.

6. The final rule includes an alternative standard to control HAP from particulate transfer; it requires venting particulate HAP to a baghouse or fabric filter that has no visible emissions.

7. The test methods and procedures for determining compliance with wastewater provisions have been clarified. The percent removal required for HAP has been changed from 99 percent to values found in 40 CFR 63 subpart G, the Hazardous Organic NESHAP for the synthetic organic chemical manufacturing industry (hereafter called the HON). Any control technique may be used to meet the treatment requirements. Also, monthly monitoring of the wastewater concentration is allowed to demonstrate continuous compliance.

8. The compliance time for existing affected sources has been changed to 2 years after the effective date, unless a new control device is needed to comply with § 63.703(c) or (g). If a new control device is needed, an owner or operator of an existing affected source must comply within 3 years of the effective date.

9. The final rule [§§ 63.703(i) and 63.704(b)(11)] contains procedures for establishing an alternate HAP concentration limit to demonstrate compliance with the standards when coating operations are not occurring.

10. The material balance averaging time was changed in the final rule. The averaging time is now 7 days to determine compliance with the standard.

11. The definition of affected source was changed from each coating line, piece of mix equipment, storage tank, etc., to the entire magnetic tape manufacturing operation.

12. A low-HAP content coating standard has been added to the final rule. A facility that uses a coating with a HAP content of no greater than 0.18 kg/L of coating solids for a coating operation is not required to further control that coating operation.

The rationale for the above changes is discussed in detail in section V of this preamble, which summarizes the major comments received on the proposed rule and EPA's responses to these comments.

## III. Summary of Environmental, Energy, Cost, and Economic Impacts

### A. Environmental and Energy Impacts

The environmental and energy impacts for this rule were not affected by changes made to the rule between proposal and promulgation.

### B. Cost Impacts

Several commenters provided comments on the estimate of nationwide compliance costs for the standard. The commenters stated that actual compliance costs could be as much as 15 times the costs estimated by the Agency. The EPA's evaluation of industry compliance costs was based on a careful analysis of information provided by industry during development of the proposed regulation. The costs are estimates and may be higher for some facilities and lower for others. Additionally, costs are based on the least expensive method for controlling emissions; sources that choose to utilize more expensive methods for control will find that their compliance costs are higher than those estimated for the standard.

The Agency did revise facility specific cost impacts between proposal and promulgation based on information received from one facility. The revised industrywide annual costs to comply with the standards are $822,000/yr. This cost includes the annual cost of control ($596,120/yr), annual compliance costs including initial performance tests and ongoing monitoring ($115,638/yr), and annual reporting and recordkeeping costs ($110,240/yr). The total industrywide capital investment is estimated to be $5,206,920. The associated cost effectiveness is $390 per megagram (Mg) of HAP controlled ($354/ton HAP).

The costs for new sources are unchanged from proposal. New source costs vary depending on whether a carbon adsorber or an incinerator is used as the control device but either system requires a total capital investment of approximately $500,000. Total annual costs for new sources are $349,360/yr if carbon adsorption is used and $270,367/yr if incineration is used, with associated cost effectivenesses of $2,470/Mg ($2,250/ton) and $1,910/Mg ($1,740/ton), respectively. New source costs were calculated assuming six new coating lines constructed within the first 5 years of the standard.

### C. Economic Impacts

The economic impacts of this rule were recalculated to reflect a revision in the estimated industrywide annual costs associated with this rule. Despite the cost revisions, the conclusion of the economic impact analysis remains the same. The economic impacts of this rule are not considered to be significant. Under this rule, the average price of magnetic tape products would only need to increase by 0.03 percent in order for the magnetic tape industry to fully recover the new annualized costs.

## IV. Public Participation

Prior to proposal of the magnetic tape manufacturing rule, a meeting of the National Air Pollution Control Techniques Advisory Committee (NAPCTAC) was held to discuss the development of the draft rule for magnetic tape manufacturing operations. That meeting was held on November 17-18, 1992. The meeting was open to the public, and each attendee was given an opportunity to comment on the draft rule.

The proposed rule was published in the Federal Register on March 11, 1994 (59 FR 11662). The preamble to the proposal discussed the availability of the proposal BID [Hazardous Air Pollutants from Magnetic Tape Manufacturing--Background Information for Proposed Standards (EPA-453/R-93-059)], which describes in detail the regulatory alternatives considered and the impacts associated with those alternatives. Public comments were solicited at the time of proposal, and copies of the proposal BID were made available to interested parties.

The public comment period ended on April 25, 1994. A public hearing was held on April 13, 1994 and the docket remained open until May 13, 1994 for submission of rebuttal and supplementary information. Altogether, 17 comment letters were received. The comments were carefully considered, and, where determined by the Administrator to be appropriate, changes were made in the final rule.

## V. Significant Comments and Responses

Comments on the proposed rule were received from magnetic tape manufacturers, State and local air pollution control agencies, and environmental organizations. A detailed discussion of these comments and responses can be found in the promulgation BID (see **ADDRESSES** section). The summary of comments and responses in the promulgation BID serves as the basis for the revisions that have been made to the rule between proposal and promulgation. The major comments and responses are summarized in this preamble.

### A. Applicability of Standards

#### 1. HAP Usage Cutoff

Although all comments on the HAP usage exemption in § 63.701(a) of the proposed rule generally supported it, the commenters questioned the applicability and intent of the exemption. The commenters stated that an exemption in terms of utilization ignores actual emissions that may emanate from a magnetic tape operation. One of these commenters pointed out that the exemption is not available to facilities that have installed control devices (and now have the potential to emit less than 10 tons/yr of HAP) yet can be used by uncontrolled facilities that emit less than 10 tons/yr of HAP; therefore, the exemption penalizes those that have installed controls. Commenters maintained that if potential to emit is used as the basis for the exemption, magnetic tape coating operations can choose to become exempt from the regulation by installing control devices or accepting Federally enforceable permit conditions to limit their emissions to below the stated threshold.

Three commenters stated that with the HAP usage exemption, it was not clear whether the proposed standard applied to area source magnetic tape manufacturing operations that are located at major sources.

Two commenters suggested allowing sources subject to the control requirements to use the HAP usage exemption at a later date if, for example, sources do not exceed the low HAP usage threshold for several consecutive years. The reason given was to encourage pollution prevention.

The EPA agrees with the commenters that the proposed HAP usage cutoff requires clarification in the final rule. The first clarification is that only magnetic tape manufacturing operations at major sources of HAP emissions are required to comply with subpart EE. However, the owner or operator of any stationary source with magnetic tape manufacturing may choose to be subject to the HAP usage limits in subpart EE to obtain a Federally enforceable limit on the potential to emit HAP from magnetic tape manufacturing operations. Essentially, the HAP usage limits are a surrogate for the potential to emit HAP. A reason the owner or operator may want to use this mechanism in subpart EE is if the stationary source would be a major source, unless it had the potential to emit limit established by this subpart. The owner or operator could use the potential to emit established for magnetic tape manufacturing operations (determined by the HAP usage limit), in conjunction with the potential to emit from the other HAP emission points at the stationary source, to be an area source. Note that the determination of whether a stationary source is major or area is dependent on the potential emissions from all points within the stationary source, or group of stationary sources located within a contiguous area and under common control.

Subpart EE does not preclude the determination of potential to emit, considering controls, by other mechanisms. For example, without controls, the potential to emit HAP could be low because the solvents used in coating are not HAP. An operation that has emission controls may have its potential to emit established by a Federally enforceable State operating permit. The definition of "Federally enforceable" in the General Provisions, subpart A of part 63, includes other examples of limits that are federally enforceable. The EPA did not include specific provisions in subpart EE to create enforceable limits for controls because, for this source category, very detailed and complex provisions would be required. The HAP usage limits, by comparison, are straightforward to determine, record, and can be easily confirmed by regulatory authorities. Because of the availability of the other mechanisms and the few plants in this source category, the EPA decided to include in this subpart only the HAP usage limits.

If a stationary source becomes an area source by subjecting its magnetic tape manufacturing operations to the HAP usage limits in subpart EE, then the control requirements of subpart EE would not apply. Furthermore, for purposes of section 112 of the Act, it would not be a regulated area source that would be required to have an operating permit under 40 CFR part 70. In other words, being subject to the HAP usage limits in the rule does not in and of itself make the facility subject to part 70. However, there may be other reasons that the stationary source is required to comply with part 70. For example, it may be a major source of emissions of volatile organic compounds.

The HAP usage limits at magnetic tape manufacturing operations have been changed from their proposed values of 10 tons/yr of an individual HAP and 25 tons/yr of combined HAP to take into account the potential emissions from other emission points at the stationary source. In the final rule, the HAP usage limits for the magnetic tape manufacturing operation are to be the values that, when summed with the values of the potential to emit each HAP from emission points other than magnetic tape manufacturing operations at the stationary source, are less than 10 tons/yr of an individual HAP and 25 tons/yr of combined HAP.

To illustrate how the HAP usage limits would be determined, three example situations have been developed. The first example is a stationary source at which the only HAP emission points are in the magnetic tape manufacturing operations. Since no other points go into the calculation in this case, the limits would be less than 10 tons/yr of an individual HAP and less than 25 tons/yr of a combination of HAP.

The second example is a stationary source at which the only HAP emission points are the magnetic tape operation and a boiler. Assume that the boiler, without controls, has the potential to emit 1 ton/yr of HAP, and that the HAP from the boiler are different from those emitted from magnetic tape manufacturing. The limits on HAP usage in the magnetic tape manufacturing operation would be to not exceed 10 tons/yr for each individual HAP and 24 tons/yr for the combination of HAP (i.e., the 25 tons/yr major source threshold minus the 1 ton/yr potential to emit of the boiler).

The third example is a stationary source in which the HAP emission points, except those associated with magnetic tape, have controls with Federally enforceable emission limits, such as a new source performance standard (NSPS) under section 111 of the Act. Assume that these Federally enforceable limits have the effect of limiting the potential HAP emissions from these emission points to 4 tons/yr of a solvent that is also used in magnetic tape manufacturing (e.g., toluene). The limit on the magnetic tape manufacturing HAP usage for toluene would be to not exceed 6 tons/yr, for other individual HAP to not exceed 10 tons/yr, and for the combination of HAP to not exceed 21 tons/yr.

Two commenters remarked that a 12-month period is too long for determining if the threshold had been exceeded; the commenters suggested a 12-month rolling total. The EPA agrees; the final rule requires that the HAP usage be calculated monthly.

In the final rule, the EPA has removed the proposed requirement that after a source has been subject to the control requirements of the maximum achievable control technology (MACT) standard, the owner or operator can not take advantage of the HAP usage limit anymore. The points made by the commenters who suggested this change are being considered as part of a general policy on the timing aspects of limitations on potential to emit, which is beyond the scope of this rulemaking. Therefore, this rulemaking does not include any specific requirements of this nature.

One commenter suggested that the HAP usage cutoff be defined in terms of net usage to encourage onsite solvent recovery and reuse. The EPA agrees that net usage encourages pollution prevention by subtracting out the amount that is recycled at the facility. Therefore, the definition of "utilize" has been changed to incorporate this concept into the final rule by allowing the owner or operator to determine utilization as the HAP inventory for the magnetic tape manufacturing operation at the beginning of a 12-month period plus the amount purchased during the 12-month period minus the amount in inventory at the end of the 12-month period. However, the proposed definition is also included as a choice, because owners or operators of a plant that uses HAP for other purposes may not keep their inventory of HAP bought for the magnetic tape manufacturing operations separate. Therefore, they may prefer a record based on the amount of HAP actually put into the process.

The proposed rule stated that when a source exceeded the HAP usage limit, the owner or operator would be required to comply with the control requirements of the rule by 1 year after the exceedance; this time had been selected to be consistent with the period given for existing sources to comply after the effective date. In the final rule, the EPA has clarified that the source shall be required to comply with the control requirements for major sources only if the owner or operator chooses to no longer be subject to the HAP usage limits and, in doing so, becomes a major source. In such a case, the owner or operator would be required to notify the Administrator or delegated State of this intent. The owner or operator would then have the same amount of time to comply with the control requirements as would an existing source, according to § 63.6(c)(5) of the General Provisions. The HAP usage limits would continue to apply until the control requirements were met.

An exceedance of a HAP usage limit would be a violation of the HAP usage provisions of subpart EE. If the source also has exceeded the major source definition thresholds by exceeding the HAP usage limit, and the source does not have an operating permit for major sources under 40 CFR part 70, the source potentially could be found in violation of the requirements of part 70 as well.

Another clarifying change in the rule is that the owner or operator is not required to include 12 months of HAP usage data in the initial notification report required by the General Provisions; this requirement would have required sources to keep records before the effective date of the rule. Instead, the owner or operator is required to submit the values of the limits on the amount of HAP utilized, as determined in § 63.703(b)(2), along with supporting calculations, with the initial notification.

As in the proposed rule, the owner or operator would be required to submit an annual report on HAP usage, with the first one covering the 12-month period before the compliance date of the rule (which, in the final rule, would be 2 years after the effective date, instead of the proposed 1 year). Because the final HAP usage limits are calculated monthly on a rolling 12-month basis, the final rule would require a report within 30 days of any exceedance of a HAP usage limit. It would be unreasonable to allow the owner or operator to wait until the annual report to report an exceedance.

### 2. Regulation of Leader Tape and Other Nonmagnetic Tape Products

Two commenters suggested deleting § 63.701(c) of the proposed rule that specifies that nonmagnetic tape manufacturing operations that take place using an affected source also are subject to the rule. The commenters argued (1) that by including nonmagnetic tape operations additional controls and solvent recovery equipment may be needed; (2) there may be conflicts with future MACT standards for the "paper and other webs" source category; (3) the nonmagnetic tape process was not considered in developing the MACT floor or impacts associated with the standard; and (4) the standard likely exceeds the MACT floor for nonmagnetic tape manufacturing. One of the commenters also suggested deleting "leader tape" from the definition of magnetic tape manufacturing operation for the same reasons. Upon review of the comments, the EPA has decided not to regulate HAP emissions from leader tape production and from nonmagnetic tape products manufactured using affected sources. Although there may be configurations for which controlling leader tape and nonmagnetic tape products is feasible, the EPA has chosen not to regulate either under subpart EE. There may be instances in which the solvents used to manufacture magnetic products and the solvents used to manufacture nonmagnetic and leader tape products are incompatible with respect to a solvent recovery device. The regulation of leader tape and nonmagnetic tape products manufacturing would be considered when the MACT standard for paper and other webs is promulgated; leader tape and nonmagnetic tape products should be covered by that standard. The EPA agrees that it did not adequately consider leader tape in the analysis of the floor for this source category. The comments brought to EPA's attention that leader tape manufacture is not necessarily as similar to magnetic tape manufacture as was originally anticipated.

### 3. Regulation of Research and Laboratory Facilities

Four commenters stated that research and laboratory activities should be exempt from the standard, regardless of whether they are collocated at a production facility. One commenter cited section 112(c)(7) of the Act as rationale, which states that EPA is directed to "...establish a separate category covering research or laboratory facilities to assure equitable treatment of such facilities." Commenters noted that traditional controls cannot reasonably be applied to research facilities because of the wide variety and small amounts of materials that are used, the batch nature of research operations, and the different methods of research operations. Commenters also noted that requiring control devices for research and laboratory facilities dramatically reduces the amount of research that can be conducted and impacts competition.

The proposed rule used the definition of research and laboratory facilities from section 112 (c)(7) of the Act.

This section provides that "research or laboratory facility" means any stationary source whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Three commenters responded to EPA's request for information on the definition of de minimis manufacture of products for commercial sale from a research and laboratory coating line. One commenter recommended that the standard adopt the definition of research or laboratory facility as proposed and not try to further define de minimis, because de minimis may vary by the nature of product being produced or the concurrent level of research activities. Two commenters suggested defining the de minimis sale of products produced at research and laboratory facilities according to the percent of time the facility is used for commercial activities, and suggested less than 50 percent of total operating time as de minimis. One commenter suggested that de minimis be defined in terms of the HAP emission level; e.g., no more than 5 tons/yr of any one HAP or 10 tons/yr of any combination of HAP could be emitted from research and laboratory facilities.

The EPA had proposed regulation of research and laboratory facilities collocated with production lines because the EPA believed that the primary control device used to control HAP emissions from coating operations could also be used to control HAP emissions from the research lines. The EPA agrees that under section 112(c)(7) of the Act, a separate category would need to be established to cover research and laboratory facilities to assure the equitable treatment of such facilities. Based on the information received at proposal, the EPA has concluded that in many instances control of HAP emissions from research and laboratory facilities is not technically feasible using the same pieces of control equipment used to control manufacturing lines. This is primarily due to the batch nature of operating the research and laboratory lines, the types of emission points (such as laboratory bench-scale equipment), and the fact that the solvents used in research could differ from those used in production. This latter problem is of specific concern when a solvent recovery device is used, because the solvent recovery device (and associated distillation operations) are designed for recovery of specific solvents. Therefore, in the final rule, research and laboratory facilities are not regulated.

In the final rule, the definition of research or laboratory facility remains unchanged from the proposed definition, which is identical to the definition in section 112(c)(7) of the Act.  The EPA disagrees with the two commenters who suggested that the phrase in the definition of research or laboratory facility "not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner" be interpreted as not engaged in commercial manufacture for more than 50 percent of its operating time.  The EPA does not believe that this is a reasonable interpretation of "de minimis manner."  However, the Agency did not receive sufficient information that "de minimis manner" could be defined for this source category.

The EPA has evaluated the types of activities it considers to fit the Act's definition of a research facility for this source category.  Research activities include those activities that are employed to develop a new coating, substrate, or end product, and may also include activities devoted to optimizing the manufacture of a new material.  For example, a magnetic tape facility may have laboratory research operations directed to developing new coatings.  Once a promising coating is developed, the research activity may move to a laboratory-scale or pilot plant coating line to determine if it can be properly applied, dried, etc.   Some marketing may take place at this stage to determine the viability of the product in the market place. For example, is there a demand for this type of product? Can it meet the customer's specifications? If the facility wishes to further pursue the coating, it may be moved to a line that operates the same as a production line to determine how the coating could be manufactured on a full-scale basis. The EPA believes that all of these activities are research because their intention is to develop new products or processes.

Once a facility determines that the manufacture of this product is viable, however, the EPA believes that additional activities are likely to be beyond the research phase. For example, the adjustment and optimization of a process or product that is already operating on a production line should not be considered research. Likewise, if a product is being manufactured on a full-size production line and introduced in a retail environment, even on a limited basis, the product is likely to be fully developed. It could be argued that research is continuing even beyond this point in that the facility is testing to determine the correct market segment, price, advertising, etc. The EPA believes, however, that this type of "research" is beyond what was intended by the Act. The company is obviously planning eventual full-scale production; the development of the new product and process is over.

### 4. Overlap of Subpart EE with Future Standards

One commenter stated that the broad definition of magnetic tape encompasses operations that should be considered as part of other source categories. For example, although the commenter's facility manufactures a product that contains magnetic particles, the actual content of magnetic particles in the product is small. The overwhelming majority of products manufactured at this facility, in terms of square footage, are products that would be considered paper and other webs. The commenter noted that only 1 percent of its annual production in square feet would meet the definition of magnetic tape. Thus, the commenter believes that it would be more appropriate to regulate this facility under a standard for paper and other webs than under the magnetic tape rule. The commenter suggested that EPA use primary product rationale to distinguish between magnetic tape facilities and facilities more appropriately classified as manufacturing paper and other webs. The commenter alternatively suggested that EPA change the definition of magnetic tape to be based on the percent of solids in the coating mix to distinguish between source categories.

The Agency has considered the request made by the commenter and agrees that a primary product distinction should be made in some cases to avoid including coating lines under the magnetic tape NESHAP that have such a small amount of magnetic tape production that it is more appropriate to regulate them exclusively under paper and other web coatings, rather than subpart EE. Therefore, the final rule specifies that if, based on the annual square footage, 1 percent or less of all products manufactured on a coating line are magnetic tape products, then that coating line is not subject to subpart EE. A cutoff of 1 percent, rather than a higher percentage number was selected to minimize potentially uncontrolled emissions from magnetic tape production on a coating line that would otherwise be regulated under the paper and other webs source category. The definition of magnetic tape was not changed due to the uncertain nature of product development. The percent composition of magnetic particles may change with the development of new magnetic tape products, and a change in the definition of magnetic tape might limit the effectiveness of subpart EE to control emissions from magnetic tape manufacturing in the future.

## B. Selection of Compliance Dates

Seven commenters stated that the compliance time of 1 year from the date of promulgation is too short. Three commenters stated that a minimum of approximately 2 years would be required to adequately plan, design, fund, purchase, and install the required new equipment. The commenters pointed out that some States require up to 10 months to issue construction permits alone. Two commenters also remarked that the 1-year compliance period did not allow adequate time for sources to apply for extensions, which must be submitted 12 months in advance of the compliance date. One of the commenters suggested the regulation distinguish between sources currently subject to the new source performance standards (NSPS) for magnetic tape manufacturing (40 CFR 60, subpart SSS) and sources not subject to the NSPS, and allow sources not subject to the NSPS 3 years to comply.

After reviewing the comments received, the Agency recognizes that a 1-year compliance period for affected sources may be inadequate for some facilities to install a new control device or expand existing controls. In addition, because this rule covers a wider range of emission points than the NSPS, some facilities that are subject to the NSPS also may need additional time to retrofit the emission controls necessary to comply with the MACT standard. Therefore, the Agency has increased the compliance period to 3 years for existing affected sources that will need to install a new control device to meet the requirements of § 63.703(c) or (g). All other existing affected sources will have to comply with the standards within 2 years of the effective date. The Agency believes that these compliance timeframes will allow facilities sufficient time to bring affected sources into compliance with the rule while ensuring implementation of emission control in a timely fashion. In addition, the increase in the compliance time period allows additional time for State agencies to implement title V permitting programs, and allows owners and operators of affected sources at least 1 year to evaluate the need and apply for an extension in accordance with § 63.6(i) of subpart A.

## C. Selection of Emission Limits and Equipment/Work Practice Specifications

### 1. Emission Limits When Coating Operations Are Down

At proposal, the EPA noted that a 95 percent control efficiency may not be feasible when the inlet HAP concentration to the control device is low, such as when the coating operations are down. This is especially a problem for owners or operators using solvent recovery devices that continuously monitor percent efficiency or HAP outlet concentration to demonstrate compliance with the standards. The rule already contains an alternative HAP outlet concentration for owners or operators of incinerators. The EPA, therefore, requested comment on alternate continuous compliance requirements for solvent recovery devices operating under low-inlet loading situations. Commenters agreed this was a problem, but were not in agreement on the best way to address the problem. Several commenters suggested extending the averaging period to 30 days to account for low inlet conditions. Commenters did not support the option of an owner or operator establishing an alternate outlet concentration requirement for periods of low inlet conditions. Primarily, the reasons cited were that it would be costly to simulate all possible modes of operation during an initial performance test, and outlet conditions are source-specific and depend greatly on highly variable inlet conditions. The EPA recognizes that it could be costly to simulate all possible modes of operation during one performance test. Given the site-specific nature of outlet conditions, it would be unfounded for EPA to set such an outlet concentration to apply to the entire industry during periods of low inlet condition, as EPA currently has no data to support such a limit. The EPA does not believe that a 30-day averaging period is an acceptable alternative, and no data were submitted to support that this is the minimum averaging time that is technically feasible.

The EPA believes that compliance with an alternate outlet concentration is the best way to establish compliance during those periods when the inlet HAP concentration to the control device is low. However, the Agency currently has no data to identify a limit. The EPA has chosen to address this problem in the final rule by allowing facilities to determine a site-specific outlet concentration during periods of low inlet conditions. Owners or operators may conduct a performance test during which the coating operations are not occurring, and the control device is operated according to good control practices and in the same manner as it was operated to achieve the emission limits for coating operations. Alternatively, to minimize the burden on affected facilities, the final rule also allows sources to establish this number using CEM data collected under such conditions as noted above. The final rule [§ 63.704(b)(11)(ii)] allows owners or operators 6 months after the compliance date to collect these data and submit a proposed limit to the Administrator or permitting authority, as appropriate. To support the alternate concentration limit, the owner or operator must also fulfill the reporting requirements in § 63.707(k).

### 2. Standard for Particulate HAP

One commenter recommended that EPA allow the use of manual charging of particulate HAP into kettles with the use of a 99 percent efficient dust collector as an equivalent method to enclosed transfer. The commenter estimates a 99.975 percent control efficiency for its own facilities. The commenter also claims that additional costs to convert to enclosed transfer would be excessive compared to the resulting emission reductions. The commenter noted that enclosed transfer systems all have some purge capability usually associated with a fabric filter that would vent to the atmosphere. Therefore, the ultimate difference between enclosed transfer and open transfer with control would be minimal.

Another commenter agreed, recommending that the proposed rule be amended to require capture and control of at least 95 percent of particulate emissions or the use of an enclosed transfer method. The commenter stated that performance standards are almost always superior to design standards, which are used only as a last resort when performance standards are not possible. Their facility vents the particulate HAP unloading area to a baghouse with greater than 99 percent control of particulate emission greater than 1 micron in diameter, which they believe is at least as efficient as the enclosed transfer method.

The final rule allows owners or operators to control emissions of particulate HAP by venting the transfer operation to a baghouse or fabric filter that operates with no visible emissions. The owner or operator will also have to demonstrate that the ventilation rate is sufficient to capture the particulate HAP through engineering calculations [§ 63.707(h)]. Guidance for determining a suitable ventilation rate may be found in the Industrial Ventilation Manual of Recommended Practice, published by the American Conference of

Governmental Industrial Hygienists (ACGIH). The final rule contains test methods and procedures for demonstrating that there are no visible emissions from the baghouse or dust collector [§ 63.705(g)], as well as monitoring provisions for demonstrating continuous compliance [§ 63.704(e)]. In addition, the definition of an enclosed transfer device was left as a broad definition so as not to exclude equipment that could achieve enclosed transfer. Supersack containers described by one commenter appear to meet this definition as would mechanical systems such as augers and conveyors. The final rule references such equipment.

### 3. Low-HAP Coating Limit

Three commenters recommended that EPA allow an equivalent compliance limit for reductions in HAP for facilities that use water-based coatings or reduce the amount of HAP applied per unit of tape manufactured. The commenters stated that this would be consistent with the NSPS, and would encourage pollution prevention. One commenter also suggested that emissions be averaged on a monthly basis, not a 3-day rolling average, which it claims is not practical.

The EPA recognizes the advantages of a low-HAP coating limit and has therefore included such a limit in the final rule as a means of encouraging pollution prevention.  The final rule includes a HAP coating limit, whereby owners or operators are exempt from requirements for coating operations if a coating containing less than 0.18 kg of HAP per L of coating solids is used.  This limit was calculated using the same methodology used to establish the alternate limit for the NSPS.  The low-HAP coating limit in subpart EE was calculated by applying a 95 percent efficiency to a typical coating containing 0.8 gallons of solvent per 0.2 gallons of solids, and that has a coating density of 7.5 pounds of solvent per gallon of coating.  Data collected from industry to support the NSPS found the typical magnetic tape coating to be 80 percent solvent and 20 percent solids, and these coating parameters were used in developing the low-VOC coating for the NSPS (0.25 kg solvent/L coating solids). In the case of subpart EE, all solvent is considered HAP; whereas in the NSPS, all solvent was considered VOC because VOC's are regulated by the NSPS.

Owners or operators that opt to comply with the low-HAP limit must determine the HAP content of each batch of coating used, following the procedures of § 63.705(c)(5) of the final rule.  Thus, an averaging period is not necessary.  If a coating with an identical formulation is subsequently used, the original calculations can be used to demonstrate compliance. Section 63.706(f) requires the owner or operator using a low HAP coating to maintain records of the HAP content of each batch of coating applied, and records of the formulation data that support the HAP content calculations. In accordance with § 63.707(i)(2), these calculated HAP contents for each batch of coating are reported as the monitored operating parameter value in the excess emissions and continuous monitoring system performance report and summary report required by § 63.10(e) of subpart A.

## D. Regulation of Wastewater

One commenter stated that condensate from the carbon adsorption system should not be considered a wastewater stream because steam strippers are part of a solvent purification process, not a wastewater treatment system. The commenter further stated that only the water stream exiting the solvent purification stripping column should be considered wastewater, and because volatilization of HAP from this stream is negligible, this stream should not be considered an emission point.

The commenter is correct in that the steam stripper may be considered a purification process to remove additional solvent from the water phase after a carbon adsorption system is steam desorbed. However, this interpretation of the process does not change the fact that the water phase from steam desorption of the carbon adsorption system is a potential HAP emission source. If a steam stripper or some other treatment is not used to remove solvent from this water phase, volatile HAP solvents could be emitted to the air. Based on EPA's data, of the three existing major sources that use steam to desorb their carbon beds, all three treat the resultant water with a steam stripper. The MACT floor for this emission source was, therefore, selected as treatment that achieves the same control level as a steam stripper.

One commenter maintained that EPA does not have sufficient data to set the concentration limit for wastewater streams from the steam stripper at 50 parts per million by weight (ppmw) of volatile organic HAP. The commenter noted that the data to support the limit was not obtained by Method 305 of appendix A to 40 CFR 63. However, the commenter did not supply any other data to support his comment. Another commenter noted that the removal efficiency and outlet concentration is highly dependent on the type of HAP compound present in the wastewater. Therefore, EPA should either (1) limit the rule only to methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), and toluene and make an adjustment for the removal efficiency for MEK described in the HON (95 percent); or (2) conduct another MACT floor evaluation to include all HAP and repropose this portion of the rule.

One commenter stated that facilities that do not use steam stripping should not have to seek EPA approval to use reliable technologies with demonstrated efficiencies in treating wastewater. The commenter noted that heated distillation columns reliably remove organics to less than 50 ppmw, and carbon adsorption is a reliable and common method to remove trace amounts of VOC from wastewater.

The wastewater provisions in the final rule differ slightly from those at proposal. The EPA agrees the rule should not limit the treatment methods to steam stripping for removing HAP from wastewater. Therefore, the final standards are expressed in terms of performance limits, not technology; an owner or operator must achieve the reference control efficiency for a given HAP or must achieve a total volatile organic HAP outlet concentration of 50 ppmw. The standard is clear that an owner or operator is required to meet only one of these requirements; the outlet concentration or the removal efficiency. Any technology can be used to meet these limits as long as it is demonstrated to meet the standards in accordance with the test methods and procedures in the rule, and as long as continuous compliance monitoring is proposed, approved, and conducted.

At proposal, the EPA explained that the removal efficiency and outlet HAP concentration limits were based on data gathered from this industry, and further supported by data gathered during development of the HON (40 CFR part 63, subpart G). In the proposed HON rule, the removal efficiency for all HAP solvents typically used in magnetic tape manufacturing was 99 percent. In the final HON, the value for MEK was changed to 95 percent. The EPA agrees that the percent removals in subpart EE should be the same as in the HON. Furthermore, the EPA does not mean to limit subpart EE to only MEK, MIBK and toluene. Therefore, § 63.703(g) of subpart EE requires the removal efficiency specified in Table 9 of the 40 CFR part 63, subpart G of the HON for HAP compounds that may be present in wastewater. The final rule also specifies that the HAP that must be removed are only those that are from magnetic tape manufacturing operations. Thus, if methanol is in the wastewater stream due to magnetic tape manufacturing, it must be removed by 31 percent as specified in Table 9 in 40 CFR part 63, subpart G. If the methanol is not from magnetic tape manufacturing operations, subpart EE does not require a specific removal efficiency.

The test method to be used to demonstrate compliance with the removal efficiency is unchanged from proposal. In the final rule, owners or operators may demonstrate compliance with the outlet concentration or removal efficiency by analyzing the wastewater for volatile organic HAP using Method 305. However, the proposed rule lacked specification regarding calculations related to Method 305. This specification, which is consistent with the HON, has been added to the final subpart EE. Also, alternate test methods maybe used if they are validated through Method 301 of 40 CFR part 63, appendix A.

### E. Selection of Test Methods and Monitoring Requirements

Section 114(a)(3) of the amended Act requires enhanced monitoring and compliance certifications of all major stationary sources. The annual compliance certifications certify whether compliance has been continuous or intermittent. Enhanced monitoring shall be capable of detecting deviations from each applicable emission limitation or standard with sufficient representativeness, accuracy, precision, reliability, frequency, and timeliness to determine if compliance is continuous during a reporting period. The monitoring in this regulation satisfies the requirements of enhanced monitoring.

Four commenters submitted comments concerning the establishment of operating parameters for monitoring purposes. Commenters noted that the monitoring parameter values that correspond to compliance with the standard will vary based on varying inlet conditions, age of the device, or other factors. For example, two commenters stated that, in the case of catalytic incinerators, the temperature rise across the catalyst bed varies according to the VOC concentration of the inlet gas stream. Another commenter pointed out that the steam-to-feed ratio of a stripping column would differ greatly over the range of feed rates, depending on the age and performance of the activated carbon used in the carbon system.

One commenter suggested that § 63.704(c)(7) of the proposed rule, which requires installation and operation of equipment to measure the site-specific operating parameters of an enclosure for the capture of HAP emissions, include a provision for a 5 percent variation of the operating parameter used to determine compliance. The commenter claimed that a 5 percent variation would satisfy the requirements for maintaining a total enclosure, and, because the rule would then be consistent with the NSPS, redundant recordkeeping would be avoided and confusion between the two standards would be minimized.

The final rule [§ 63.704(b)(11)(i)] allows owners or operators to conduct multiple tests to establish site-specific operating parameters. Thus, for example, when catalytic incinerator inlet conditions vary, the owner or operator will have a range of appropriate temperatures for compliance determinations. Similarly, the final rule allows owners or operators using a steam stripper the option of conducting multiple tests to determine the appropriate range of steam-to-feed ratios that are appropriate for a variety of operating conditions. Because the final rule allows affected sources to conduct multiple tests to establish site-specific values for various operating parameters, the Agency does not believe that specifying a variance in operating parameter values is warranted.

One commenter requested that EPA establish alternative monitoring other than the monitoring of steam-to-feed ratio because a stripper can operate at a wide range of steam-to-feed ratios and still be operating properly. As noted above, the owner or operator could develop different steam-to-feed ratios for different conditions. Furthermore, EPA has included alternative monitoring requirements in the final rule to demonstrate compliance with the wastewater standard. As an alternative to monitoring steam-to-feed ratio, the final rule allows monthly monitoring of the volatile organic HAP (VOHAP) concentration in the wastewater from the outlet of the control device to demonstrate continuous compliance with the 50 ppmw standard. Because the wastewater stream is not expected to be greatly variable, monthly monitoring of the concentration was determined to be an adequate frequency for determining continuous compliance.

Two commenters suggested changing the material balance averaging period from 3 days to 30 days. The first commenter stated that a 30-day averaging period is consistent with the NSPS, and a 3-day averaging period would not be feasible for solvent recovery systems with long adsorption cycles. The solvent used in 1 day would not necessarily be recovered in the same day and may result in incomplete balances over a 3-day averaging period. The second commenter stated that a 3-day rolling average is impractical and unreasonable, with overly burdensome recordkeeping requirements. The commenter further stated that any facility that approaches 95 percent control would probably not use a material balance mechanism to demonstrate compliance because of this burden.

The EPA has increased the material balance averaging time period from 3 days to 7 days in the final rule. The EPA agrees that a 3-day average may not be able to adequately account for variability in recovered solvent due to changes in production and the adsorption cycle of the solvent recovery device as noted by the commenters. However, the EPA does not believe that 30 days is necessary to achieve this, and that 7 days is a reasonable averaging period for most facilities. Model VOC rules developed for reasonably available control technology (RACT) in State Implementation Plans require a 7-day rolling period for material balance calculation of the overall emission reduction efficiency of a solvent recovery control system (e.g., carbon adsorber). The EPA does not agree with the commenters that a 7-day averaging period will be more burdensome than a 30-day averaging period because the records necessary to compute a material balance are of an ongoing nature. The only significant difference is that the overall efficiency will be calculated on a 7-day cycle rather than a 30-day cycle. An owner or operator who does not believe that 7 days is an adequate averaging period given their specific solvent recovery circumstances, and who wishes to use alternate compliance techniques may provide their reasoning in a petition to the Administrator in accordance with § 63.705(j) of subpart EE and § 63.7(f) of subpart A. Also, the final rule offers other compliance provisions for users of solvent recovery devices.

Three commenters requested that the rule include specific monitoring provisions for the use of innovative control technologies, such as biofiltration, which may perform better than traditional control technologies. One commenter stated that the proposed requirements requesting approval of monitoring techniques for innovative technologies discourage their use.

At proposal, the Agency was not aware of any biofiltration units in place to control HAP or VOC emissions from magnetic tape manufacturing operations.

Further research on this technology at this time could potentially delay promulgation of the final rule. However, § 63.704(f) of the final rule allows owners or operators of affected sources to submit compliance monitoring provisions for alternate control technologies to the Administrator for approval. The EPA believes that an owner or operator of an affected source that is exploring the use of biofiltration or other innovative control techniques will be more informed and better able to propose appropriate testing and monitoring. Furthermore, the EPA believes that the extended compliance timeframe of 3 years in the final rule will allow owners or operators of existing affected sources adequate time to propose alternative testing and monitoring requirements.

### F. Alternative Compliance Plans and Selection of the Affected Source

At proposal, in discussing the selection of the affected source definition, the EPA noted that a broad definition of affected source would be needed if emissions averaging provisions were contained in the rule. The proposed rule did not contain emissions averaging provisions because the EPA believes that there is very little opportunity for emissions averaging in this source category.  However, the EPA solicited comments and information on emissions averaging for this source category.

Three commenters recommended that EPA allow emissions averaging.  One commenter stated that controlling emissions from solvent storage tanks with the same primary control device used to control other emissions at a facility would not be cost effective.  The commenter noted that storage tanks may be located a considerable distance from the main facility for safety and insurance reasons and controlling the low level of emissions from storage tanks would not be cost effective given the amount of ductwork that would be required to connect them to the primary control device.  The commenter also stated that compliance with the regulation through control of storage tanks with a dedicated small carbon canister would be very difficult and extremely expensive particularly if installation of a CEM on the carbon canister is necessary.  The commenter believes that allowing emissions averaging in the standard would alleviate these difficulties by not requiring emission control and CEM's on all emission units.  This commenter suggested creating a simplified version of the emissions trading scheme included in the HON final rule (59 FR

19402). The commenter stated that EPA could disallow trading between HAP of varying risk factors and require a slight excess HAP reduction of 10 percent to overcompensate for any measurement inaccuracies. The commenter stated that the drawbacks of emissions averaging regarding weighting factors would not be an issue in this industry, because the solvent HAP used by this industry all have the same weighting factor. The EPA also could eliminate requirements for air emission monitoring, modeling, and risk assessment since no trades between HAP of different risk factors would be allowed.

The commenter further suggested that EPA eliminate the restriction that excludes HAP emission reductions beyond the control device reference technology control level in emission trading. The commenter stated that a facility will normally operate its control device at a level above the compliance limit to ensure compliance, even though this practice results in higher operating costs; because this additional control is usually achieved solely for compliance reasons, the Agency should allow it to be included in emissions averaging calculations.

The second commenter also pointed out that some emission points contribute more than others and suggested a prioritization scheme that evaluates the relative contribution of each individual source relative to the total emissions from the entire magnetic tape operation. According to the commenter, prioritization would allow cost effective control and could exempt from control emission points that in the aggregate contribute no more than 5 percent of the total emissions. For the remaining emissions, the commenter suggested 95 percent reduction. As an alternative to this prioritization scheme, the commenter suggested an emissions averaging scheme to achieve 95 percent control of emissions from the entire operation.

The third commenter suggested averaging emissions from an entire mix/coat operation so that more efficient emissions control achieved from the coating line can offset less efficient control of the VOC-dilute mix room exhaust. The commenter suggested that a group of emission points collocated and ducted to a common abatement device within a facility (e.g., all mix room equipment, or coating operations) be treated as a single affected source. The commenter argued that under this approach, environmental protection will be equal to, if not greater than that with the narrower definition of affected source, and domestic producers would not be further disadvantaged by the burden of regulatory costs.

One commenter recommended that EPA not consider emissions averaging any further. The commenter stated that emissions averaging most often results in increased emissions of toxic chemicals that are more difficult to control and may include HAP. Also, emissions averaging programs have been difficult to administer, with burdensome compliance and recordkeeping requirements, and have been difficult to enforce.

The prioritization scheme suggested by one of the commenters would achieve less control than the main standard because it would exempt 5 percent of the uncontrolled emissions, and only require 95 percent control of the nonexempted emissions. Furthermore, this plan would not account for the fact that the underlying standard is not 95 percent control for all emission points. Therefore, it was not considered further by the EPA.

Several of the comments on emissions averaging for magnetic tape manufacturing appear to involve concerns about compliance demonstrations, rather than a need for emissions averaging. For example, a commenter suggested that all emission sources vented to the same control device be allowed to be "averaged" so that only the common control device has to be monitored (such as the tanks in the mix room and the coating operations). It is the EPA's intent that when several sources are vented to a common control, the control device itself is monitored; each emission point does not have to be monitored separately. This point has been clarified in the final regulation.

This commenter also alluded to the problem for the primary control device of achieving 95-percent control when the coating operations are down because the other streams vented to the device have low flow rates and low concentrations. The EPA has included in the final rule an alternative standard in which the owner or operator would determine, during a period when the control device is properly operated and maintained, a concentration level for the control device when the coating operations are not operating properly.

Another commenter expressed concern that the proposed regulation would have required continuous emission monitors (CEM's) on carbon canisters, which might be used to control storage tanks far from the main control device. The EPA recognizes that the proposed rule had not adequately considered monitoring for such situations and is including alternative monitoring for nonregenerative carbon adsorbers in the final rule.

One particular problem area that was mentioned in other comments as well as in those on emissions averaging was the control of storage tanks. Commenters noted that emissions from storage tanks are small and may be cost ineffective to control in comparison with other control costs imposed by this rule. This could be true particularly for those that are sited away from the main coating operation (and the primary control device) for safety or insurance reasons. As discussed in section 2.6.2 of the background information document, based on available information, there is no basis for subcategorizing among storage tanks based on size or distance from the control device. However, the EPA agrees that storage tanks could be cost ineffective to control if far from the main control device and that the emissions are small. The estimated uncontrolled HAP emissions from all the storage tanks at a small facility total 0.01 ton/yr and at a large facility total 1.2 tons/yr.

To meet this concern, the EPA developed an alternative compliance option that would allow the owner or operator not to control certain storage tanks in return for achieving more control of the largest emissions source at magnetic tape manufacturing facilities. Under this option, in exchange for accepting a requirement of 97 percent reduction (instead of 95 percent as required by the basic standard) for all the coating operations, the owner or operator may leave uncontrolled up to 10 storage tanks with a maximum individual capacity of 20,000 gallons. There are also two additional tiers: to control all coating operations by 98 percent in lieu of controlling 15 such storage tanks; or 99 percent in lieu of controlling 20 such storage tanks. Available information indicates that this range of options is adequate to cover the range of plants.

This alternative compliance option might appear at first to be inconsistent with provisions of the HON (which is the first MACT standard that provides for emissions averaging) in that the HON does not permit a plant operator to gain averaging credit for using reference control technology (the technology assumed in the development of the standard) at a higher-than-required percentage reduction. However, there are clear factual differences which distinguish the two situations.

Emission limitations under the HON are applicable to emission points whose characteristics equal or exceed specified cut-offs and are based on the use of reference control technology. Emissions averaging under the HON responds to concern that it may be unusually expensive to apply reference controls to some of the covered emission points (such as emission points located far from a control device). The HON emissions averaging provisions allow a plant operator to avoid control of some covered emission points (a) by applying the reference control technology to exempt emission points (points whose characteristics are below the cut-offs) or (b) by applying controls that are inherently more effective than the reference control technology to other covered emission points. Except for reductions achieved by pollution prevention measures, the substituted controls must produce at least 110 percent of the emission reductions that would have been achieved at the emission points that will no longer be controlled. In addition, the permitting authority must conclude that risk or hazard is not increased by the averaging.

As stated above, the HON does not permit the plant operator to gain averaging credit for using the reference technology at a higher-than-required percentage reduction. Credits for operating a control technology better than its rated control efficiency are not allowed for two main reasons. One is the fact that in the development of the standard, the rated efficiency of the reference technology was set on a lowest-common-denominator basis. Due to the variable nature of the pollutant streams encountered among plants subject to the HON (variations from plant to plant in the mix of pollutants, operating rates, and other factors), the selection of a single percentage reduction applicable to each control technology in all circumstances required a lowest-common-denominator approach, and in many cases such equipment will achieve substantially higher percentage reductions under normal design and operating conditions. If credit were allowed for this differential, a plant operator would gain an undeserved windfall due to the manner in which the rated control efficiencies were derived.

In the case of magnetic tape manufacturing, the EPA is considering a much simpler situation than in the HON. Magnetic tape facilities have generally smaller variability in the plant-to-plant mix of pollutants, operating rates, and other factors. Rather than including any emission point as in the HON, only two types of emissions points are eligible for the alternative compliance plan for magnetic tape operations:

the coating operations and the storage tanks. Because of the simpler nature of magnetic tape processes and the magnitude of the additional emissions control, EPA concludes that the emissions from the uncontrolled storage tanks are adequately offset by additional control at the coating operations. The required two percent additional increase in control efficiency at the largest emission point at magnetic tape manufacturing plants creates additional emissions reductions of as much as 0.35 ton/yr at a small facility and 190 tons/yr at a large facility. Under the alternative compliance option, some storage tanks may remain uncontrolled. However, the emissions from these points are very small in comparison to the additional potential emission benefit accruing from the coating operations. At small plants, 0.01 ton/yr remain uncontrolled; at larger plants, 1.2 tons/yr. As in the HON, there is variability in operating conditions and pollutant streams. Thus, EPA is unable to quantify precisely how much additional emissions benefit can be attributed to the required increase in control efficiency. The EPA is confident that the emissions from the uncontrolled points are adequately offset by additional reductions.

The other reason the HON does not allow credit for operating a device greater than its reference control efficiency is a concern over enforcement problems. The variable mix of pollutants and operating conditions seen at HON sources means that the amount by which emission reductions exceed rated levels is difficult to determine reliably. The data tracking for each point and device would be extremely complex. Use of a reference control efficiency for each reference control technology allows the implementing agency inspectors to check that the equipment is in place and operating as planned. Then the implementing agency can check records to examine the calculation of debits and credits on each of the emission points in order to make a compliance determination.

The alternative compliance approach discussed above for magnetic tape manufacturing would not pose these same enforcement problems. The required control efficiency for the coating operations would be the same for all plants taking advantage of this approach. Continuous monitoring is required to determine ongoing compliance with the emission standard. For carbon adsorbers, the most common control device in the industry, CEM's are required. (Note that CEM's are not required for nonregenerative carbon adsorbers, as discussed above. Such adsorbers would not be used on coating operations.)

For incinerators and condensers, the owner or operator would be required to determine during the initial performance test a temperature that corresponds to at least 97 percent control (instead of the 95 percent control of coating operations required by the basic standard). Therefore, the additional emission reduction would be ensured.

In summary, the EPA believes that it can address the commenters' main concerns without a general emissions averaging scheme, such as in the HON. The clarifications and changes in compliance determinations discussed above and the alternative compliance option for storage tanks and coating operations are sufficient. Under these circumstances, the EPA believes that permitting credit for operating a control device better than its rated control efficiency for the alternative compliance option for the magnetic tape industry is distinguishable from the HON and justifiable.

Four parties commented on the proposed definition of the affected source, which was each emission point. One agreed with the proposed narrow definition, stating that it makes the rule easily enforceable. Three commented that a broad definition is more appropriate. Several reasons related to arguments discussed above on emissions averaging. An additional reason was the interaction with the General Provisions, 40 CFR 63 subpart A. For example, for the startup, shutdown, and malfunction plan required by subpart A, it would be burdensome to have a separate plan for each emission point, rather than the entire facility.

The EPA has changed the definition of the affected source to the entire magnetic tape manufacturing operation. It agrees that one startup, shutdown, and malfunction plan for the operation would be reasonable. Furthermore, more flexibility would be offered to the States in requesting alternative requirements under 40 CFR 63 subpart E, since that subpart requires the alternative requirements be equivalent in stringency for each affected source. The comments related to emissions averaging have been addressed above.

### G. Performance Specifications

The enhanced monitoring rule, proposed as 40 CFR part 64 (58 FR 54648, October 22, 1993), included two proposed performance specifications (PS's) for CEM's in appendix A. They were PS 101 for VOC CEM's and PS 102 for gas chromatographic CEM's. The proposed NESHAP for magnetic tape manufacturing operations included a proposed requirement for CEM's to follow PS 101 and 102.

The EPA has decided to promulgate these two performance specifications in 40 CFR part 60 with revised title numbers, rather than in part 64, at the same time as promulgating the magnetic tape NESHAP. The proposed PS 101 and 102 from part 64 are being promulgated as PS 8 and PS 9 in appendix B of part 60, respectively. Comment letters that included comments on these performance specifications are in Docket No. A-91-52, the docket for the enhanced monitoring rule. This docket is located in the Air and Radiation Docket and Information Center described in the Addresses section of this notice. Pages of the comment letters that specifically address these performance specifications have been placed in Docket No. A-91-31, which is the docket for the magnetic tape NESHAP. Summaries of these comments and EPA's responses are located in the BID (EPA-453/R-94-074b) described in the Addresses section. Comments originally addressed to the docket for PS 101 and PS 102 are hereafter discussed in terms of PS 8 and PS 9, for the sake of clarity.

Comments received on PS 8 indicated a general need to revise it to eliminate confusion between its content and that of the existing performance specifications in appendix B to 40 CFR part 60. Also, certain specifications in PS 8 were inconsistent with the previously accepted approach of judging the merit of a CEM based on a comparison with a reference test method. Therefore, PS 8 has been revised to insure consistency with the existing performance specifications in appendix B. The PS definitions, installation and measurement location specifications, test procedures, data reduction procedures, and reporting requirements are all now the same as those in PS 2, and will be familiar to those persons who have applied the existing performance specifications.

Most of the comments on PS 9 dealt with issues of clarity in terms of the wording. These comments have been addressed, and many of the sections have been rewritten for clarity. More equations have been added to make the specification easier to use. Some commenters were confused when certain sections of PS 9 referred to other appendices of the proposed enhanced monitoring rule. Any references to the other appendices of the enhanced monitoring rule have been deleted and PS 9 is now all-inclusive; portions of other appendices have been incorporated into PS 9. These changes should make PS 9 easier to use.

One commenter objected to the high temperature requirement of 150 °C for the sampling system. The purpose of the heated sampling system is to prevent moisture condensation.  The temperature requirement has been changed to a more workable 120 °C, which should still prevent condensation.  Several commenters noted that the calibration requirements for the analyzer should be clarified.  The calibration requirements have been rewritten for clarity, and an allowance for gas dilution systems has also been added.

## VI. Administrative Requirements

### A. Docket

The docket for this rulemaking is A-91-31.  The docket is an organized and complete file of all the information submitted to or otherwise considered by the EPA in the development of this rulemaking.  The principal purposes of the docket are:  (1) to allow interested parties a means to identify and locate documents so that they can effectively participate in the rulemaking process; and (2) to serve as the record in case of judicial review (except for interagency review materials) [section 307(d)(7)(A) of the Act].  The docket is available for public inspection at the EPA's Air and Radiation Docket and Information Center, the location of which is given in the ADDRESSES section of this notice.

## B. Executive Order 12866

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

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

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

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

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

It has been determined that this rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is therefore not subject to OMB review.

## C. Paperwork Reduction Act

Information collection requirements associated with this rule have been approved by OMB under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, and have been assigned OMB control number 2060-____. An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1678.02), and a copy may be obtained from Sandy Farmer, Information Policy Branch, EPA 2136, Washington, DC 20460, or by calling (202) 260-2740.

The public reporting burden for this collection of information is estimated to average 5 hours per respondent in the first year, 1,620 hours per respondent in the second year and 729 hours per respondent in the third year. This includes the time required for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, 2136, U. S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

## D. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 et seq.) requires that a Regulatory Flexibility Analysis be performed for all rules that have "significant impact on a substantial number of small entities." If a preliminary analysis indicates that a proposed regulation would have a significant economic impact on 20 percent or more of small entities, then a regulatory flexibility analysis must be prepared.

Present Regulatory Flexibility Act guidelines define an economic impact as significant if it meets one of the following criteria:

(1) Compliance increases annual production costs by more than 5 percent, assuming costs are passed on to consumers;

(2) Compliance costs as a percentage of sales for

small entities are at least 10 percent more than compliance costs as a percentage of sales for large entities;

(3) Capital costs of compliance represent a "significant" portion of capital available to small entities, considering internal cash flow plus external financial capabilities; or

(4) Regulatory requirements are likely to result in closures of small entities.

The results of the economic impact analysis (EIA) indicate that the first and fourth criteria are satisfied for one of the three small businesses in the regulated portion of the magnetic tape industry.

The EIA calculated facility and product-specific price increases based on the assumption that each facility would need to recoup fully its control costs through a price increase. The results indicated that one facility (a small business) would require a price increase of approximately 5 percent. In addition, an evaluation of postregulation facility earnings indicated that the same facility would experience a decline of approximately 36 percent in earnings if it is required to comply with the regulation.

The combination of satisfying the significant price increase criterion as well as satisfying the significant impact on postregulation earnings criterion indicate that one small entity is expected to experience a significant economic impact due to implementation of the regulation.

The small business administration's size standards were used to identify 3 facilities out of the 14 regulated facilities as being small businesses. Due to the significant impacts expected to be experienced by one of the small facilities, a regulatory flexibility analysis was conducted to assess the feasibility of providing additional flexibility to small businesses complying with the regulation.

For small businesses in general, one mechanism that was identified as potentially helpful was the HAP usage cutoff described earlier in this document. However, any small business whose HAP usage exceeds the cutoff level will have operations similar to those located at large businesses, and therefore will have the same potential to emit HAP as the large businesses. All three small businesses identified as being subject to the regulation have HAP usage levels above the cutoff level. Due to the above reasoning, there are no technical reasons for examining different requirements for small businesses as opposed to large businesses.

For the small business with significant economic impacts, monitoring is the least costly activity that would achieve the requirements of the Clean Air Act. The recommended recordkeeping and reporting requirements of the rule are also the minimum contained in the General Provisions for the NESHAP program. The facility could minimize its recordkeeping and reporting burden by continuing to stay in compliance with the regulation. More detailed reporting is necessary for deviations from compliance.

### E. Miscellaneous

In accordance with section 117 of the Act, publication of this promulgated rule was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies.

This regulation will be reviewed 8 years from the date of promulgation. This review will include an assessment of such factors as evaluation of the residual health risks, any overlap with other programs, the existence of alternative methods, enforceability, improvements in emission control technology and health data, and the recordkeeping and reporting requirements.

List of Subjects

40 CFR Part 63

Air pollution control, Hazardous substances, Incorporation by reference, Reporting and recordkeeping requirements.

Date

Administrator

6560-50

## TABLE 1. SUMMARY OF THE STANDARD

| Emission point | Standards | |
|---|---|---|
| Each solvent storage tank | § 63.703(c)(1): | Overall (i.e., capture x control device efficiency) HAP control efficiency of ≥95 percent; or |
| | § 63.703(c)(2): | For incinerators an alternate outlet HAP concentration of ≤20 ppmv; or |
| | § 63.704(c)(4): | Do not control but control coating operations at higher efficiencies specified in rule; or |
| | § 63.703(i): | Establish an alternate maximum HAP outlet concentration monitored with CEM to demonstrate compliance during periods when coaters are not operating. |
| Each piece of mix preparation equipment | § 63.703(c)(1): | Overall HAP control efficiency of ≥95 percent; or |
| | § 63.703(c)(2): | For incinerators an alternate outlet HAP concentration of ≤20 ppmv; or |
| | § 63.703(i): | Establish an alternate maximum HAP outlet concentration monitored with CEM to demonstrate compliance during periods when coaters are not operating. |
| Each coating operation | § 63.703(c)(1): | Overall HAP control efficiency of ≥95 percent; or |
| | § 63.703(c)(2): | For incinerators an outlet HAP concentration of ≤20 ppmv; or |
| | § 63.703(c)(4): | Control all coating operations at specified higher efficiencies instead of storage tanks; or |
| | § 63.703(c)(5): | Use coating with HAP content no greater than 0.18 kg/L coating solids. |
| Each waste handling device | § 63.703(c)(1): | Overall HAP control efficiency of ≥95 percent; or |
| | § 63.703(c)(2): | For incinerators an alternate outlet HAP concentration of ≤20 ppmv; or |
| | § 63.703(i): | Establish an alternate maximum HAP outlet concentration to demonstrate compliance during periods when coaters are not operating. |
| Each condenser vent in solvent recovery[a] | § 63.703(c)(1): | Overall HAP control efficiency of ≥95 percent; or |
| | § 63.703(c)(2): | For incinerators an alternate outlet HAP concentration of ≤20 ppmv; or |
| | § 63.703(i): | Establish an alternate maximum HAP outlet concentration to demonstrate compliance during periods when coaters are not operating. |
| Each particulate transfer operation | § 63.703(d)(1): | Use enclosed transfer; or |
| | § 63.703(d)(2): | Vent to baghouse/fabric filter that exhibits no visible emissions while controlling particulate HAP transfer. |
| Each wash sink for cleaning removable parts | § 63.703(e)(1)(i): | Overall HAP control efficiency of > percent; or |
| | § 63.703(e)(1)(ii): | Minimum freeboard ratio of 75 percent; or |
| | § 63.703(i): | Establish an alternate maximum HAP outlet concentration to demonstrate compliance during periods when coaters are not operating. |
| Each piece of equipment for flushing fixed lines | § 63.703(f)(1)(i): | Overall HAP control efficiency of ≥95 percent; or |
| | § 63.703(f)(i)(ii): | Use closed system; or |
| | § 63.703(i): | Establish an alternate maximum HAP outlet concentration to demonstrate compliance during periods when coaters are not operating. |
| Each wastewater treatment operation | § 63.703(g): | Treat to remove HAP by the fraction removed specified in Table 9 of 40 CFR part 63, subpart G or so that total VOHAP concentration at exit is < 50 ppmw. |

## TABLE 1. (continued)

[a] Except the vent on the condenser serving as an add-on air pollution control device.

For the reasons set out in the preamble, title 40, Chapter I of the Code of Federal Regulations is amended as set forth below.

**PART 9-[AMENDED]**

1. The authority citation for part 9 continues to read as follows:

**Authority**: 7 U.S.C. 135 _et_ _seq_., 135-136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601-2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 _et_ _seq_., 1311, 1313d, 1314, 1321, 1326, 1330, 1344, 1345(d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971-1975; Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-1, 300j-2, 300j-3, 300j-4, 300j-9, 1857 _et_ _seq_., 6901-6992k, 7401-7671q, 7542, 9601-9657, 11023, 11048.

2. Section 9.1 is amended by adding a new entry to the table under the indicated heading to read as follows:

**§ 9.1 OMB approvals under the Paperwork Reduction Act.**

* * * * *

| 40 CFR citation | OMB control No. |
|---|---|
| * * * * * * * | |
| National Emission Standards for Hazardous Air Pollutants for Source Categories: | |
| * * * * * * * | |

63.703-63.707 2060 -

* * * * * * *

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**PART 60-[AMENDED]**

1. The authority citation for part 60 continues to read as follows:

**Authority**: Sections 101, 111, 114, 116, and 301 of the Clean Air Act as amended (42 U.S.C. 7401, 7411, 7414, 7416, 7601).

2. Part 60 is amended by adding performance specifications 8 and 9 to appendix B to read as follows:

## Performance Specification 8

## Performance Specifications for Volatile Organic Compound Continuous Emission Monitoring Systems in Stationary Sources

### 1. Applicability and Principle

### 1.1 Applicability.

**1.1.1** This specification is to be used for evaluating a continuous emission monitoring system (CEMS) that measures a mixture of volatile organic compounds (VOC's) and generates a single combined response value. The VOC detection principle may be flame ionization (FI), photoionization (PI), nondispersive infrared absorption (NDIR), or any other detection principle that is appropriate for the VOC species present in the emission gases and that meets this performance specification. The performance specification includes procedures to evaluate the acceptability of the CEMS at the time of or soon after its installation and whenever specified in emission regulations or permits. This specification is not designed to evaluate the installed CEMS performance over an extended period of time, nor does it identify specific calibration techniques and other auxiliary procedures to assess the CEMS performance. However, it is the responsibility of the source owner or operator, to calibrate, maintain, and operate the CEMS properly. Under section 114 of the Act, the Administrator may require the operator to evaluate the CEMS performance by conducting CEMS performance evaluations in addition to the initial test. See section 60.13(c).

The definitions, installation and measurement location specifications, test procedures, data reduction procedures, reporting requirements, and bibliography are the same as in PS 2, sections 2, 3, 5, 6, 8, 9, and 10, and also apply to VOC CEMS's under this specification. The performance and equipment specifications and the relative accuracy (RA) test procedures for VOC CEMS do not differ from those for $SO_2$ and $NO_x$ CEMS, except as noted below.

**1.1.2** In most emission circumstances, most VOC monitors can provide only a relative measure of the total mass or volume concentration of a mixture of organic gases, rather than an accurate quantification. This problem is removed when an emission standard is based on a total VOC measurement as obtained with a particular detection principle. In those situations where a true mass or volume VOC concentration is needed, the problem can be mitigated by using the VOC CEMS as a relative indicator of total VOC concentration if statistical analysis indicates that a sufficient margin of compliance exists for this approach to be acceptable. Otherwise, consideration can be given to calibrating the CEMS with a mixture of the same VOC's in the same proportions as they actually occur in the measured source. In those circumstances where only one organic species is present in the source, or where equal incremental amounts of each of the organic species present generate equal CEMS responses, the latter choice can be more easily achieved.

**1.2 Principle** . Calibration drift and relative accuracy tests are conducted to determine the adherence of the CEMS to specifications given for those items. The performance specifications include criteria for installation and measurement location, equipment and performance, and procedures for testing and data reduction.

## 2. Performance and Equipment Specifications

**2.1 VOC CEMS Selection.** When possible, select a VOC CEMS with the detection principle of the reference method specified in the regulation or permit (usually either FI, NDIR, or PI). Otherwise, use knowledge of the source process chemistry, previous emission studies, or gas chromatographic analysis of the source gas to select an appropriate VOC CEMS. Exercise extreme caution in choosing and installing any CEMS in an area with the potential for explosive hazards.

**2.2 Data Recorder Scale .** Same as section 4.1 of PS 2.

**2.3 Calibration Drift .** The CEMS calibration must not drift by more than 2.5 percent of the span value.

**2.4 CEMS Relative Accuracy .** Unless stated otherwise in the regulation or permit, the RA of the CEMS must be no greater than 20 percent of the mean value of the reference method (RM) test data in terms of the units of the emission standard, or 10 percent of the applicable standard, whichever is greater.

## 3. Relative Accuracy Test Procedure

**3.1 Sampling Strategy for RM Tests, Correlation of RM and CEMS Data, Number of RM Tests, and Calculations .** Follow PS 2, sections 7.1, 7.2, 7.3, and 7.5, respectively.

**3.2 Reference Method .** Use the method specified in the applicable regulation or permit, or any approved alternative, as the RM.

# Performance Specification 9

## Specifications and Test Procedures for Gas Chromatographic Continuous Emission Monitoring Systems in Stationary Sources

## 1. Applicability and Principle

**1.1 Applicability.** These requirements apply to continuous emission monitoring systems (CEMS) that use gas chromatography (GC) to measure gaseous organic compound emissions. The requirements include procedures intended to evaluate the acceptability of the CEMS at the time of its installation and whenever specified in regulations or permits. Quality assurance procedures for calibrating, maintaining, and operating the CEMS properly at all times are also given in this procedure.

**1.2 Principle.** Calibration precision, calibration error, and performance audit tests are conducted to determine conformance of the CEMS with these specifications. Daily calibration and maintenance requirements are also specified.

## 2. Definitions

**2.1 Gas Chromatograph (GC).** That portion of the system that separates and detects organic analytes and generates an output proportional to the gas concentration. The GC must be temperature controlled. **Note:** The term "temperature controlled" refers to the ability to maintain a certain temperature around the column. Temperature-programmable GC is not required for this performance specification, as long as all other requirements for precision, linearity, and accuracy listed in this performance specification are met. It should be noted that temperature programming a GC will speed up peak elution, thus allowing increased sampling frequency.

**2.1.1 Column.** An analytical column capable of separating the analytes of interest.

**2.1.2 Detector.** A detection system capable of detecting and quantifying all analytes of interest.

**2.1.3 Integrator.** That portion of the system that quantifies the area under a particular sample peak generated by the GC.

**2.1.4 Data Recorder.** A strip chart recorder, computer, or digital recorder capable of recording all readings within the instrument's calibration range.

**2.2 Calibration Precision.** The error between triplicate injections of each calibration standard.

### 3. Installation and Measurement Location Specifications

Install the CEMS in a location where the measurements are representative of the source emissions. Consider other factors, such as ease of access for calibration and maintenance purposes. The location should not be close to air in-leakages. The sampling location should be at least two equivalent duct diameters downstream from the nearest control device, point of pollutant generation, or other point at which a change in the pollutant concentration or emission rate occurs. The location should be at least 0.5 diameter upstream from the exhaust or control device. To calculate equivalent duct diameter, see section 2.1 of Method 1 (40 CFR part 60, appendix A). Sampling locations not conforming to the requirements in this section may be used if necessary upon approval of the Administrator.

## 4. CEMS Performance and Equipment Specifications

**4.1 Presurvey Sample Analysis and GC Selection.** Determine the pollutants to be monitored from the applicable regulation or permit and determine the approximate concentration of each pollutant (this information can be based on past compliance test results). Select an appropriate GC configuration to measure the organic compounds. The GC components should include a heated sample injection loop (or other sample introduction systems), separatory column, temperature-controlled oven, and detector. If the source chooses dual column and/or dual detector configurations, each column/detector is considered a separate instrument for the purpose of this performance specification and thus the procedures in this performance specification shall be carried out on each system. If this method is applied in highly explosive areas, caution should be exercised in selecting the equipment and method of installation.

**4.2 Sampling System.** The sampling system shall be heat traced and maintained at a minimum of 120 °C with no cold spots. All system components shall be heated, including the probe, calibration valve, sample lines, sampling loop (or sample introduction system), GC oven, and the detector block (when appropriate for the type of detector being utilized, e.g., flame ionization detector).

**4.3 Calibration Gases.** Obtain three concentrations of calibration gases certified by the manufacturer to be accurate to within 2 percent of the value on the label. A gas dilution system may be used to prepare the calibration gases from a high concentration certified standard if the gas dilution system meets the requirements specified in Test Method 205, 40 CFR part 51, appendix M. The performance test specified in Test Method 205 shall be repeated quarterly, and the results of the Method 205 test shall be included in the report. The calibration gas concentration of each target analyte shall be as follows (measured concentration is based on the presurvey concentration determined in section 4.1). **Note:** If the low level calibration gas concentration falls at or below the limit of detection for the instrument for any target pollutant, a calibration gas with a concentration at 4 to 5 times the limit of detection for the instrument may be substituted for the low-level calibration gas listed in section 4.3.1

**4.3.1 Low-level.** 40-60 percent of measured concentration.

**4.3.2 Mid-level.** 90-110 percent of measured concentration.

**4.3.3 High-level.** 140-160 percent of measured concentration, or select highest expected concentration.

**4.4 Performance Audit Gas.** A certified EPA audit gas shall be used, when possible. A Protocol 1 gas mixture containing all the target compounds within the calibration range may be used when EPA performance audit materials are not available. The instrument relative error shall be $\leq$10 percent of the certified value of the audit gas.

**4.6 Calibration Error (CE).** The CEMS must allow the determination of CE at all three calibration levels. The average CEMS calibration response must not differ by more than 10 percent of calibration gas value at each level after each 24-hour period of the initial test.

**4.7 Calibration Precision and Linearity.** For each triplicate injection at each concentration level for each target analyte, any one injection shall not deviate more than 5 percent from the average concentration measured at that level. The linear regression curve for each organic compound at all three levels shall have an $r^2 > 0.995$ (using Equation 1).

**4.8 Measurement Frequency.** The sample to be analyzed shall flow continuously through the sampling system. The sampling system time constant (T) shall be $\leq$5 minutes or the sampling frequency specified in the applicable regulation, whichever is less. Use Equation 3 to determine T. The analytical system shall be capable of measuring the effluent stream at the frequency specified in the appropriate regulation or permit.

## 5. Performance Specification Test (PST) Periods

**5.1 Pretest Preparation Period.** Using the procedures described in Method 18 (40 CFR part 60, appendix A), perform initial tests to determine GC conditions that provide good resolution and minimum analysis time for compounds of interest. Resolution interferences that may occur can be eliminated by appropriate GC column and detector choice or by shifting the retention times through changes in the column flow rate and the use of temperature programming.

**5.2 7-Day CE Test Period.** At the beginning of each 24-hour period, set the initial instrument setpoints by conducting a multipoint calibration for each compound. The multipoint calibration shall meet the requirements in section 4.7. Throughout the 24-hour period, sample and analyze the stack gas at the sampling intervals prescribed in the regulation or permit. At the end of the 24-hour period, inject the three calibration gases for each compound in triplicate and determine the average instrument response. Determine the CE for each pollutant at each level using the equation in section 6.2. Each CE shall be $\leq$10 percent. Repeat this procedure six more times for a total of 7 consecutive days.

**5.3 Performance Audit Test Periods.** Conduct the performance audit once during the initial 7-day CE test and quarterly thereafter. Sample and analyze the EPA audit gas(es) (or the Protocol 1 gas mixture if an EPA audit gas is not available) three times. Calculate the average instrument response. Report the audit results as part of the reporting requirements in the appropriate regulation or permit (if using a Protocol 1 gas mixture, report the certified cylinder concentration of each pollutant).

## 6. Equations

**6.1 Coefficient of Determination.** Calculate $r^2$ using linear regression analysis and the average concentrations obtained at three calibration points as shown in Equation 1.

$$r^2 = \left( \frac{n\Sigma x_i y_i - (\Sigma x_i)(\Sigma y_i)}{\sqrt{(n\Sigma y_i^2 - \Sigma y_i \Sigma y_i)(n\Sigma x_i^2 - \Sigma x_i \Sigma x_i)}} \right)^2 \qquad \text{Eq. 1}$$

where:

$r^2$ = Coefficient of determination.

n = Number of measurement points.

x = CEMS response.

y = Actual value of calibration standard.

**6.2 Calibration Error Determination.** Determine the percent calibration error (CE) at each concentration for each pollutant using the following equation.

$$CE = \frac{C_m - C_a}{C_a} \times 100 \qquad \text{(Eq. 2)}$$

where:

$C_m$ = average instrument response, ppm.

$C_a$ = cylinder gas value, ppm.

**6.3 Sampling System Time Constant (T).**

$$T = \frac{F}{V} \qquad \text{Eq. (3)}$$

where:

F =

Flow rate of stack gas through sampling system, in liters/min.

V =

Sample system volume, in Liters, which is the volume inside the sample probe and tubing leading from the stack to the sampling loop.

## 7. Daily Calibration

**7.1 Initial Multipoint Calibration.** After initial startup of the GC, after routine maintenance or repair, or at least once per month, conduct a multipoint calibration of the GC for each target analyte. The multipoint calibration for each analyte shall meet the requirements in section 4.7.

**7.2 Daily Calibration.** Once every 24 hours, analyze the mid-level calibration standard for each analyte in triplicate. Calculate the average instrument response for each analyte. The average instrument response shall not vary more than 10 percent from the certified concentration value of the cylinder for each analyte. If the difference between the analyzer response and the cylinder concentration for any target compound is greater than 10 percent, immediately take corrective action on the instrument if necessary, and conduct an initial multipoint calibration as described in section 7.1.

## 8. Reporting

Follow the reporting requirements of the applicable regulation or permit. If the reporting requirements include the results of this performance specification, summarize in tabular form the results of the CE tests.

Include all data sheets, calculations, CEMS data records, performance audit results, and calibration gas concentrations and certifications.

## PART 63-[AMENDED]

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

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

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

## Subpart EE--National Emission Standards for Magnetic Tape Manufacturing Operations

### § 63.701 Applicability.

(a) Except as specified in paragraph (b) of this section, the provisions of this subpart apply to:

(1) each new and existing magnetic tape

manufacturing operation located at a major source of hazardous air pollutant (HAP) emissions; and

(2) a magnetic tape manufacturing operation for which the owner or operator chooses to use the provisions of § 63.703(b) and (h) to obtain a Federally enforceable limit on its potential to emit HAP.

EXPLANATORY NOTE: A reason the owner or operator would make the choice described in paragraph (a)(2) of this section is if the plant site, without this limit, would be a major source. The owner or operator could use this limit, which would establish the potential to emit from magnetic tape manufacturing operations, in conjunction with the potential to emit from the other HAP emission points at the stationary source, to be an area source. Note, however, that an owner or operator is not required to use the provisions in § 63.703(b) and (h) to determine the potential to emit HAP from magnetic tape manufacturing operations.

(b) This subpart does not apply to the following:

(1) research or laboratory facilities; and

(2) any coating operation that produces a quantity of magnetic tape that is 1 percent or less of total production (in terms of total square footage coated) from that coating operation in any 12-month period.

(c) The affected source subject to this standard is the magnetic tape manufacturing operation, as defined in § 63.702.

(d) An owner or operator of an existing affected source subject to the provisions of this subpart shall comply according to the following schedule:

(1) within 3 years after the effective date of the standard, if the owner or operator is required to install a new add-on air pollution control device to meet the requirements of § 63.703(c) or (g); or

(2) within 2 years after the effective date of the standard, if a new add-on air pollution control device is not needed to comply with § 63.703(c) or (g) of these standards.

(e) The compliance date for an owner or operator of a new affected source subject to the provisions of this subpart is immediately upon startup of the affected source.

(f) The provisions of this subpart apply during periods of startup and shutdown, and whenever magnetic tape manufacturing operations are taking place.

(g) Owners or operators of affected sources subject to the provisions of this subpart shall also comply with the requirements of subpart A as identified in Table 1, according to the applicability of subpart A to such sources.

(h) In any title V permit for an affected source, all research or laboratory facilities that are exempt from the requirements of this subpart shall be clearly identified.

**§ 63.702 Definitions.**

(a) All terms used in this subpart that are not defined below have the meaning given to them in the Clean Air Act and in subpart A of this part.

Add-on air pollution control device means equipment installed at the end of a process vent exhaust stack or stacks that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Examples are incinerators, condensers, carbon adsorbers, and biofiltration units. Transfer equipment and ductwork are not considered in and of themselves add-on air pollution control devices.

Bag slitter means a device for enclosed transfer of particulates. A bag of raw materials is placed in a hopper, the hopper is closed, and an internal mechanism slits the bag, releasing the particulates into either a closed conveyor that feeds the mix preparation equipment or into the mix preparation equipment itself.

Base substrate means the surface, such as plastic or paper, to which a coating is applied.

Capture efficiency means the fraction of all organic vapors or other pollutants generated by a process that are directed to an add-on air pollution control device.

Capture device means a hood, enclosed room, or other means of collecting HAP vapors or other pollutants into a duct that exhausts to an add-on air pollution control device.

Carbon adsorber vessel means one vessel in a series of vessels in a carbon adsorption system that contains carbon and is used to remove gaseous pollutants from a gaseous emission source.

Car seal means a seal that is placed on a device that is used either to open a closed valve or close an opened valve so that the position of the valve cannot be changed without breaking the seal.

Closed system for flushing fixed lines means a system in which the line to be flushed is disconnected from its original position and connected to two closed containers, one that contains cleaning solvent and one that is empty. Solvent is flushed from the container with cleaning solvent, through the line, and into the empty containers.

Coater or coating applicator means the apparatus used to apply a coating to a continuous base substrate.

Coating application means the process by which the coating mix is applied to the base substrate.

<u>Coating operation</u> means any coater, flashoff area, and drying oven located between a base substrate unwind station and a base substrate rewind station that coats a continuous base substrate.

<u>Control device efficiency</u> means the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced to the control device, expressed as a percentage.

<u>Day</u> means a 24-consecutive-hour period.

<u>Drying oven</u> means a chamber that uses heat to bake, cure, polymerize, or dry a surface coating; if the coating contains volatile solvents, the volatile portion is evaporated in the oven.

<u>Enclosed transfer method</u> means a particulate HAP transfer method that uses an enclosed system to prevent particulate HAP from entering the atmosphere as dust. Equipment used for this purpose may include vacuum injection systems or other mechanical transfer systems, bag slitters, or supersacks.

<u>Equivalent diameter</u> means four times the area of an opening divided by its perimeter.

*Flashoff area* means the portion of a coating operation between the coater and the drying oven where solvent begins to evaporate from the coated base substrate.

*Flushing of fixed lines* means the flushing of solvent through lines that are typically fixed and are not associated with the cleaning of a tank, such as the line from the mix room to the coater.

*Freeboard ratio* means the vertical distance from the surface of the liquid to the top of the sink or tank (freeboard height) divided by the smaller of the length or width of the sink or tank evaporative area.

*Magnetic coatings* means coatings applied to base substrates to make magnetic tape. Components of magnetic coatings may include: magnetic particles, binders, dispersants, conductive pigments, lubricants, solvents, and other additives.

*Magnetic particles* means particles in the coating mix that have magnetic properties. Examples of magnetic particles used in magnetic tape manufacturing are: γ-oxide, doped iron oxides, chromium dioxide, barium ferrite, and metallic particles that usually consist of elemental iron, cobalt, and/or nickel.

*Magnetic tape* means any flexible base substrate that is covered on one or both sides with a coating containing magnetic particles and that is used for audio recording, video recording, or any type of information storage.

Magnetic tape manufacturing operation means all of the emission points within a magnetic tape manufacturing facility that are specifically associated with the manufacture of magnetic tape. These include, but are not limited to:

(1) Solvent storage tanks;

(2) Mix preparation equipment;

(3) Coating operations;

(4) Waste handling devices;

(5) Particulate transfer operations;

(6) Wash sinks for cleaning removable parts;

(7) Cleaning involving the flushing of fixed lines;

(8) Wastewater treatment systems; and

(9) Condenser vents associated with distillation and stripping columns in the solvent recovery area, but not including the vent on a condenser that is used as the add-on air pollution control device.

Mill means the pressurized equipment that uses the dispersing action of beads, combined with the high shearing forces of the centrifugal mixing action, to disperse the aggregates of magnetic particles thoroughly without reducing particle size.

Mix preparation equipment means the vessels, except for mills, used to prepare the magnetic coating.

Natural draft opening means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

Nonregenerative carbon adsorber means a carbon adsorber vessel in which the spent carbon bed does not undergo carbon regeneration in the adsorption vessel.

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limitation or standard.

Overall HAP control efficiency means the total efficiency of the control system, determined by the product of the capture efficiency and the control device efficiency.

Particulate means any material, except uncombined water, that exists as liquid or solid particles such as dust, smoke, mist, or fumes at standard conditions (760 millimeters of mercury, 0 degrees celsius).

Particulate HAP transfer means the introduction of a particulate HAP into other dry ingredients or a liquid solution.

Removable parts cleaning means cleaning of parts that have been moved from their normal position to a wash tank or sink containing solvent for the purpose of cleaning.

Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development to develop new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Separator means a device in the wastewater treatment system in which immiscible solvent is physically separated from the water with which it is mixed.

Solvent storage tanks means the stationary tanks that are associated with magnetic tape operations and that store virgin solvent, spent solvent, cleaning solvent, solvent at any stage of the solvent recovery process, or any volatile compound. They do not serve a process function.

Solvent recovery area means the collection of devices used to remove HAP emissions from process air, to recover the HAP, and to purify the HAP. Typically, this area contains a control device such as a carbon adsorber or condenser, the wastewater treatment system, and the distillation columns.

Solvent recovery device means, for the purposes of this subpart, an add-on air pollution control device in which HAP is captured rather than destroyed. Examples include carbon adsorption systems and condensers.

Supersack means a container of particulate from the manufacturer or supplier with attached feed tubes and that is used to transfer particulate under the following conditions: the feed tubes are attached directly to the mix preparation equipment, the attachment interface is sealed, and all openings on the mix transfer equipment are closed to the atmosphere.

Temporary total enclosure means a total enclosure that is constructed for the sole purpose of measuring the fugitive emissions from an affected source. A temporary total enclosure must be constructed and ventilated (through stacks suitable for testing) so that it has minimal impact on the performance of the permanent capture system. A temporary total enclosure will be assumed to achieve total capture of fugitive emissions if it conforms to the requirements found in § 63.705(c)(4)(i) and if all natural draft openings are at least four duct or hood equivalent diameters away from each exhaust duct or hood. Alternatively, the owner or operator may apply to the Administrator for approval of a temporary enclosure on a case-by-case basis.

Total enclosure means a structure that is constructed around a gaseous emission source so that all gaseous pollutants emitted from the source are collected and ducted through a control device, such that 100 percent capture efficiency is achieved. There are no fugitive emissions from a total enclosure. The only openings in a total enclosure are forced makeup air and exhaust ducts and any natural draft openings such as those that allow raw materials to enter and exit the enclosure for processing. All access doors or windows are closed during routine operation of the enclosed source. Brief, occasional openings of such doors or windows to accommodate process equipment adjustments are acceptable, but if such openings are routine or if an access door remains open during the entire operation, the access door must be considered a natural draft opening. The average inward face velocity across the natural draft openings of the enclosure must be calculated including the area of such access doors. The drying oven itself may be part of the total enclosure. A permanent enclosure that meets the requirements found in § 63.705(c)(4)(i) is a total enclosure.

Utilize means the use of HAP that is delivered to mix preparation equipment for the purpose of formulating coatings, the use of any other HAP (e.g., dilution solvent) that is added at any point in the manufacturing process, and the use of any HAP for cleaning activities. Alternatively, annual HAP utilization can be determined as net usage; that is, the HAP inventory at the beginning of a 12-month period, plus the amount of HAP purchased during the 12-month period, minus the amount of HAP in inventory at the end of a 12-month period.

Vacuum injection system means a system in which a vacuum draws particulate from a storage container into a closed system that transfers particulates into the mix preparation equipment.

Volatile organic compound (VOC) means any organic compound that participates in atmospheric photochemical reactions or that is measured by EPA Test Methods 18, 24, or 25A in appendix A of part 60 or an alternative test method as defined in § 63.2.

Volatile organic hazardous air pollutant (VOHAP) concentration means the concentration of an individually-speciated organic HAP in a wastewater discharge that is measured by Method 305 of appendix A to 40 CFR part 63.

Waste handling means processing or treatment of waste (liquid or solid) that is generated as a by-product of either the magnetic tape production process or cleaning operations.

Waste handling device means equipment that is used to separate solvent from solid waste (e.g., filter dryers) or liquid waste (e.g., pot stills and thin film evaporators). The solvents are recovered by heating, condensing, and collection.

Wastewater discharge means the water phase that is discharged from the separator in a wastewater treatment system.

Wastewater treatment system means the assortment of devices in which the solvent/water mixture, generated when the carbon bed in the carbon adsorber is desorbed by steam, is treated to remove residual organics in the water.

(b) The nomenclature used in this subpart is defined when presented or has the meaning given below:

(1) $A_k$ = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) $C_{aj}$ = the concentration of HAP or VOC in each gas stream (j) exiting the emission control device, in parts per million by volume.

(3) $C_{bi}$ = the concentration of HAP or VOC in each gas stream (i) entering the emission control device, in parts per million by volume.

(4) $C_{di}$ = the concentration of HAP or VOC in each gas stream (i) entering the emission control device from the affected source, in parts per million by volume.

(5) $C_{fk}$ = the concentration of HAP or VOC in each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(6) $C_{gv}$ = the concentration of HAP or VOC in each uncontrolled gas stream entering each individual carbon adsorber vessel (v), in parts per million by volume. For the purposes of calculating the efficiency of the individual carbon adsorber vessel, $C_{gv}$ may be measured in the carbon adsorption system's common inlet duct prior to the branching of individual inlet ducts to the individual carbon adsorber vessels.

(7) $C_{hv}$ = the concentration of HAP or VOC in the gas stream exiting each individual carbon adsorber vessel (v), in parts per million by volume.

(8) E = the control device efficiency achieved for the duration of the emission test (expressed as a fraction).

(9) F = the HAP or VOC emission capture efficiency of the HAP or VOC capture system achieved for the duration of the emission test (expressed as a fraction).

(10) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(11) G = the calculated mass of HAP per volume of coating solids (in kilograms per liter) contained in a batch of coating.

(12) $H_v$ = the individual carbon adsorber vessel (v) efficiency achieved for the duration of the emission test (expressed as a fraction).

(13) $H_{sys}$ = the efficiency of the carbon adsorption system calculated when each carbon adsorber vessel has an individual exhaust stack (expressed as a fraction).

(14) $L_{si}$ = the volume fraction of solids in each batch of coating (i) applied as determined from the formulation records at the affected source.

(15) $M_{ci}$ = the total mass in kilograms of each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7-day period, as appropriate, as determined from records at the affected source. This quantity shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the mass of the coating has been determined, appropriate adjustments shall be made to account for them.

(16) $M_r$ = the total mass in kilograms of HAP or VOC recovered for a 7-day period.

(17) $Q_{aj}$ = the volumetric flow rate of each gas stream (j) exiting the emission control device in either dry standard cubic meters per hour when EPA Method 18 in appendix A of part 60 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(18) $Q_{bi}$ = the volumetric flow rate of each gas stream (i) entering the emission control device, in dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used

to measure HAP or VOC concentration.

(19) $Q_{di}$ = the volumetric flow rate of each gas stream (i) entering the emission control device from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(20) $Q_{fk}$ = the volumetric flow rate of each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(21) $Q_{gv}$ = the volumetric flow rate of each gas stream entering each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration. For purposes of calculating the efficiency of the individual carbon adsorber vessel, the value of $Q_{gv}$ can be assumed to equal the value of $Q_{hv}$

measured for that carbon adsorber vessel.

(22) $Q_{hv}$ = the volumetric flow rate of each gas stream exiting each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(23) $Q_{in\ i}$ = the volumetric flow rate of each gas stream (i) entering the total enclosure through a forced makeup air duct in standard cubic meters per hour (wet basis).

(24) $Q_{out\ j}$ = the volumetric flow rate of each gas stream (j) exiting the total enclosure through an exhaust duct or hood in standard cubic meters per hour (wet basis).

(25) R = the overall HAP or VOC emission reduction achieved for the duration of the emission test (expressed as a percentage).

(26) $RS_i$ = the total mass in kilograms of HAP or VOC retained in the coated substrate after oven drying for a given magnetic tape product.

(27) $V_{ci}$ = the total volume in liters of each batch of coating (i) applied as determined from records at the

affected source.

(28) $W_{oi}$ = the weight fraction of HAP or VOC in each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7-day period, as appropriate, as determined by EPA Method 24 or formulation data. This value shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the weight fraction of HAP or VOC in the coating has been determined, appropriate adjustments shall be made to account for them.

## § 63.703 Standards.

(a) Each owner or operator of any affected source that is subject to the requirements of this subpart shall comply with the requirements of this subpart on and after the compliance dates specified in § 63.701.

(b)(1) The owner or operator subject to § 63.701(a)(2) shall determine limits on the amount of HAP utilized (see definition) in the magnetic tape manufacturing operation as the values for the potential to emit HAP from the magnetic tape manufacturing operation.

(2) The limits on the amount of HAP utilized in the

magnetic tape manufacturing operations shall be determined in the following manner.

(i) The potential to emit each HAP from each emission point at the stationary source, other than those from magnetic tape manufacturing operations, shall be calculated and converted to the units of Mg/yr (or tons/yr).

(ii) The limits on the HAP utilized in the magnetic tape manufacturing operation shall be determined as the values that, when summed with the values in paragraph (b)(2)(i) of this section, are less than 9.1 Mg/yr (10 tons/yr) for each individual HAP and 22.7 Mg/yr (25 tons/yr) for the combination of HAP.

(3) The limits on the HAP utilized determined in paragraph (b)(2) of this section shall be in terms of Mg/yr (or tons/yr), calculated monthly on a rolling 12-month average. The owner or operator shall not exceed these limits.

(4) An owner or operator subject to paragraph (b) of this section shall meet the requirements in paragraph (h) of this section.

(5) A magnetic tape manufacturing operation that is subject to paragraph (b) of this section and is located at an area source is not subject to paragraphs (c)

through (g) of this section.

(c) Except as provided by § 63.703(b), each owner or operator of an affected source subject to this subpart shall limit gaseous HAP emitted from each solvent storage tank, piece of mix preparation equipment, coating operation, waste handling device, and condenser vent in solvent recovery as specified in paragraphs (c)(1) through (c)(5) of this section:

(1) Except as otherwise allowed in paragraphs (c)(2), (3), (4), and (5) of this section, each owner or operator shall limit gaseous HAP emitted from each solvent storage tank, piece of mix preparation equipment, coating operation, waste handling device, and condenser vent in solvent recovery by an overall HAP control efficiency of at least 95 percent.

(2) An owner or operator that uses an incinerator to control emission points listed in paragraph (c)(1) of this section may choose to meet the overall HAP control efficiency requirement of paragraph (c)(1) of this section, or may operate the incinerator such that an outlet 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.

(3) An owner or operator may choose to meet the requirements of paragraph (c)(1) or (2) of this section by venting the room, building, or enclosure in which the HAP emission point is located to an add-on air pollution control device, as long as the required overall HAP control efficiency of this method is sufficient to meet the requirements of paragraph (c)(1) or (2) of this section.

(4) In lieu of controlling HAP emissions from each solvent storage tank to the level required by paragraph (c)(1) of this section, an owner or operator of an affected source may:

(i) control HAP emissions from all coating operations by an overall HAP control efficiency of at least 97 percent in lieu of controlling 10 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(ii) control HAP emissions from all coating operations by an overall HAP control efficiency of at least 98 percent in lieu of controlling 15 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity; or

(iii) control HAP emissions from all coating operations by an overall HAP control efficiency of at least 99 percent in lieu of controlling 20 HAP solvent storage tanks that do not exceed 20,000 gallons each in capacity.

(iv) Owners or operators choosing to meet the requirements of paragraphs (c)(4)(i), (ii), or (iii) of this section are also subject to the reporting requirement of § 63.707(k).

(5) In lieu of controlling HAP emissions from a coating operation to the level required by paragraph (c)(1) of this section, owners or operators may use magnetic coatings that contain no greater than 0.18 kilograms of HAP per liter of coating solids for that coating operation. For the requirements of this paragraph, §§ 63.6(e)(3), 63.6(f)(1) and (2), 63.8(b)(2) and (3), 63.8(c), 63.8(d), 63.8(e), 63.8(g), 63.9(e) and (g), 63.10(c), 63.10(d)(2), (3), and (5), 63.10(e)(1) and (2), and 63.11 of subpart A do not apply.

(d) Particulate transfer operations. Except as stipulated by § 63.703(b), each owner or operator of an affected source subject to this subpart shall:

(1) use an enclosed transfer method to perform particulate HAP transfer; or

(2) direct emissions from particulate HAP transfer through a hood or enclosure to a baghouse or fabric

filter that exhibits no visible emissions while controlling HAP emissions from particulate HAP transfer.

(e) Wash sinks for cleaning removable parts.

(1) Except as stipulated by § 63.703(b), each owner or operator of an affected source subject to this subpart shall limit gaseous HAP emissions from each wash sink containing HAP:

(i) so that the overall HAP control efficiency is no less than 88 percent; or

(ii) by maintaining a minimum freeboard ratio of 75 percent in the wash sink at all times when the sink contains HAP.

(2) Owners or operators may meet the requirements of paragraph (e)(1)(i) of this section by venting the room, building, or enclosure in which the sink is located, as long as the overall HAP control efficiency of this method is demonstrated to be at least 88 percent using the test methods in § 63.705(e).

(3) Wash sinks subject to the control provisions of subpart T of this part are not subject to paragraph (e)(1) or (e)(2) of this section.

(f) <u>Equipment for flushing fixed lines</u>.

(1) Except as stipulated by § 63.703(b), each owner or operator of an affected source subject to this subpart shall limit gaseous HAP emissions from each affected set of equipment for flushing fixed lines:

(i) so that the overall HAP control efficiency is at least 95 percent; or

(ii) by using a closed system for flushing fixed lines.

(2) Owners or operators may meet the requirements of paragraph (f)(1)(i) of this section by venting the room, building, or enclosure in which the fixed lines are located, as long as the overall HAP control efficiency of this method is demonstrated to be at least 95 percent using the test methods in § 63.705(f).

(g) <u>Wastewater treatment systems</u>.

(1) Except as stipulated by § 63.703(b), each owner or operator of an affected source subject to this subpart shall:

(i) treat the wastewater discharge to remove each HAP from magnetic tape manufacturing operations that is present in the wastewater discharge by at least the fraction removed ($F_R$) specified in Table 9 of 40 CFR part 63, subpart G; or

(ii) treat (other than by dilution) the HAP from magnetic tape manufacturing operations that are present in the wastewater discharge such that the exit concentration is less than 50 ppmw of total VOHAP.

(2) The treatment method used to meet the requirements of paragraph (g)(1) of this section shall not transfer emissions from the water to the atmosphere in an uncontrolled manner.

(h)(1) Magnetic tape manufacturing operations that are subject to § 63.703(b) and are not at major sources are not subject to §§ 63.6(e), 63.6(f), 63.6(g), 63.6(i)(4), 63.7, 63.8, 63.9(c) through (h), 63.10(b)(2), 63.10(c), 63.10(d)(2) through (5), 63.10(e), and 63.11 of subpart A.

(2) Magnetic tape manufacturing operations subject to § 63.703(b) shall fulfill the recordkeeping requirements of § 63.706(e) and the reporting requirements of § 63.707(b), (c), and (j).

(3) An owner or operator of a magnetic tape manufacturing operation subject to § 63.703(b) who chooses to no longer be subject to § 63.703(b) shall notify the Administrator or delegated State of such change. If by no longer being subject to § 63.703(b), the source at which the magnetic tape manufacturing

operation is located would become a major source, the owner or operator shall meet the following requirements, starting from the date of such notification:

(i) comply with paragraphs (c) through (g) of this section, and other provisions of this subpart within the timeframe specified in § 63.6(c)(5); and

(ii) comply with the HAP utilization limits in § 63.703(b) until the requirements of paragraph (h)(3)(i) of this section are met.

(i) For any solvent storage tank, piece of mix preparation equipment, waste handling device, condenser vent in solvent recovery, wash sink for cleaning removable parts, and set of equipment for flushing of fixed lines, the owner or operator may, instead of meeting the requirements of paragraphs (c)(1), (e)(1)(i), or (f)(1)(i) of this section, vent the gaseous HAP emissions to an add-on air pollution control device other than an incinerator that, in conjunction with capture equipment or ductwork, is designed to achieve an overall HAP control efficiency of at least 95 percent for the emissions from the coating operation, and achieve an alternate outlet concentration limit when coating operations are not occurring, as determined in § 63.704(b)(11)(ii).

(j) The requirements of this subpart do not preclude the use of pressure relief valves and vacuum relief valves for safety purposes.

**§ 63.704 Compliance and monitoring requirements.**

(a) For owners or operators of an affected source that are using add-on air pollution control equipment or a steam stripper to comply with § 63.703, paragraph (b) of this section identifies the operating parameter to be monitored to demonstrate continuous compliance. For all owners or operators subject to § 63.703, except § 63.703(b) and (h), regardless of the type of control technique used, paragraph (c) of this section identifies the procedures that must be followed to demonstrate continuous compliance with § 63.703.

(b) Establishing a limit under § 63.703(i) and operating parameter values. The owner or operator of an affected source subject to § 63.703 except § 63.703(b) and (h), shall establish the operating parameter value to be monitored for compliance as required by paragraph (c) of this section, in accordance with paragraphs (b)(1) through (b)(11) of this section. An owner or operator subject to § 63.703(i) shall establish a limit as required in paragraph (b)(11)(ii) of this section.

(1) Except as allowed by paragraphs (b)(2), (3),

(4), (5), or (9) of this section, for each add-on air pollution control device used to control solvent HAP emissions, the owner or operator shall fulfill the requirements of paragraph (b)(1)(i) or (ii) of this section.

(i) The owner or operator shall establish as a site-specific operating parameter the outlet total HAP or VOC concentration that demonstrates compliance with § 63.703(c)(1), (c)(2), (c)(4), (e)(1)(i), (f)(1)(i), or (i) as appropriate; or

(ii) The owner or operator shall establish as the site-specific operating parameter the control device efficiency that demonstrates compliance with § 63.703(c)(1), (c)(4), (e)(1)(i), and (f)(1)(i).

(iii) When a nonregenerative carbon adsorber is used to comply with § 63.703(c)(1), the site-specific operating parameter value may be established as part of the design evaluation used to demonstrate initial compliance (§ 63.705(c)(6)). Otherwise, the site-specific operating parameter value shall be established during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), (3), or (4).

(2) For each condenser used as the add-on air pollution control device to comply with § 63.703(c),

(e)(1)(i), (f)(1)(i) or (i), in lieu of meeting the requirements of § 63.704(b)(1), during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), or (4), the owner or operator may establish as a site-specific operating parameter the maximum temperature of the condenser vapor exhaust stream and shall set the operating parameter value that demonstrates compliance with § 63.703(c), (e)(1)(i), (f)(1)(i) or (i) as appropriate;

(3) For each thermal incinerator, in lieu of meeting the requirements of § 63.704(b)(1), during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), or (4), the owner or operator may establish as a site-specific operating parameter the minimum combustion temperature and set the operating parameter value that demonstrates compliance with § 63.703(c), (e)(1)(i), or (f)(1)(i), as appropriate.

(4) For each catalytic incinerator, in lieu of meeting the requirements of § 63.704(b)(1), during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), or (4), the owner or operator may establish as site-specific operating parameters the minimum gas temperature upstream of the

catalyst bed and the minimum gas temperature difference across the catalyst bed, and set the operating parameter values that demonstrate compliance with § 63.703(c), (e)(1)(i), or (f)(1)(i), as appropriate.

(5) For each nonregenerative carbon adsorber, in lieu of meeting the requirements of § 63.704(b)(1), the owner or operator may establish as the site-specific operating parameter the carbon replacement time interval, as determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system. The carbon replacement time interval shall be established either as part of the design evaluation to demonstrate initial compliance (§ 63.705(c)(6)), or during the initial performance test conducted according to the procedures of § 63.705(c)(1), (2), (3), or (4).

(6) Each owner or operator venting solvent HAP emissions from a source through a room, enclosure, or hood, to a control device to comply with § 63.703(c), (e)(1)(i), (f)(1)(i), or (i) shall:

(i) Submit to the Administrator with the compliance status report required by § 63.9(h) of the General Provisions a plan that:

(A) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained;

(B) Discusses why this parameter is appropriate for demonstrating ongoing compliance; and

(C) Identifies the specific monitoring procedures;

(ii) Set the operating parameter value, or range of values, that demonstrate compliance with § 63.703(c), (e)(1)(i), (f)(1)(i), or (i), as appropriate; and

(iii) Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(7) For each baghouse or fabric filter used to control particulate HAP emissions in accordance with § 63.703(d)(2), the owner or operator shall establish as the site-specific operating parameter the minimum ventilation air flow rate through the inlet duct to the baghouse or fabric filter that ensures that particulate HAP are being captured and delivered to the control device. The minimum ventilation air flow rate is to be supported by the engineering calculations that are considered part of the initial performance test, as required by § 63.705(g)(2).

(8) Owners or operators subject to § 63.704(b)(1),

(2), (3), (4), (5), (6), or (7) shall calculate the site-specific operating parameter value, or range of values, as the arithmetic average of the maximum and/or minimum operating parameter values, as appropriate, that demonstrate compliance with § 63.703(c), (d), (e), (f) or (i) during the multiple test runs required by § 63.705(b)(2) and (b)(1), or during the multiple runs of other tests conducted as allowed by paragraph § 63.704(b)(11).

(9) For each solvent recovery device used to comply with § 63.703(c), in lieu of meeting the requirements of paragraph (b)(1) of this section, the results of the material balance calculation conducted in accordance with § 63.705(c)(1) may serve as the site-specific operating parameter that demonstrates compliance with § 63.703(c).

(10) Owners or operators complying with the provisions of § 63.703(g) shall establish the site-specific operating parameter according to paragraph (b)(10)(i) or (ii) of this section.

(i) Owners or operators using a steam stripper shall establish the steam-to-feed ratio as the site-specific operating parameter, except as allowed in paragraph (b)(10)(ii) of this section, according to the following criteria:

(A) The minimum operating parameter value shall correspond to at least the fraction removed specified in § 63.703(g)(1)(i) and be submitted to the permitting authority for approval with the design specifications required by § 63.705(h)(1); or

(B) The minimum operating parameter value shall be that value that corresponds to a total VOHAP outlet concentration in the wastewater of less than 50 ppmw as determined through tests conducted in accordance with § 63.705(b)(9) and (h)(2); or

(C) The minimum operating parameter value shall be the value that corresponds to at least the fraction removed specified in § 63.705(g)(1)(i), as demonstrated through tests conducted in accordance with § 63.705(b)(9) and (h)(3).

(ii) Owners or operators complying with § 63.703(g) through the use of a steam stripper or any other control technique may establish as a site-specific operating parameter the outlet total VOHAP concentration according to the following criteria:

(A) The minimum operating parameter value shall correspond to at least the fraction removed specified in § 63.703(g)(1)(i) and be submitted to the permitting authority for approval with the design specifications required by § 63.705(h)(1); or

(B) The minimum operating parameter value shall be a total VOHAP outlet concentration in the wastewater of less than 50 ppmw, as required by § 63.703(g)(1)(ii), and as determined through tests conducted in accordance with § 63.705(b)(9) and (h)(2); or

(C) The minimum operating parameter value shall be the value that corresponds to at least the fraction removed specified in § 63.705(g)(1)(i), as demonstrated through tests conducted in accordance with § 63.705(b)(9) and (h)(3).

(11) Compliance provisions for nonrepresentative operating conditions.

(i) The owner or operator of an affected source may conduct multiple performance tests to establish the operating parameter value, or range of values, that demonstrates compliance with the standards in § 63.703 during various operating conditions.

(ii) To establish an alternate outlet concentration limit as provided in § 63.703(i), the owner or operator, when the coating operation is not occurring, shall conduct a performance test using the methods in § 63.705 for determining initial compliance with § 63.703(c)(1), (e)(1)(i) or (f)(1)(i), or shall collect data from continuous emission monitors used to determine continuous compliance as specified in § 63.704(b) and (c). During the period in which this limit is being established, the control device shall be operated in accordance with good air pollution control practices and in the same manner as it was operated to achieve the emission limitation for coating operations. Owners or operators choosing to establish such an alternative shall also comply with paragraphs (b)(11)(ii)(A) and (B) of this section.

(A) The owner or operator shall submit the alternate outlet HAP concentration limit within 180 days after the compliance demonstration required by § 63.7 of subpart A, to the Administrator, as required by § 63.707(k)(1).

(B) The Administrator will approve or disapprove the limit proposed in accordance with paragraph (b)(11)(ii)(A) of this section within 60 days of receipt of the report required by § 63.707(k)(1), and any other supplemental information requested by the Administrator to support the alternate limit.

(c) Continuous compliance monitoring. Following the date on which the initial compliance demonstration is completed, continuous compliance with the standards shall be demonstrated as outlined in paragraphs (c), (d), (e), or (f) of this section.

(1)(i) Each owner or operator of an affected source subject to § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) of this subpart shall monitor the applicable parameters specified in paragraphs (c)(3), (4), (5), (6), (7), or (9) of this section depending on the type of control technique used, and shall monitor the parameters specified in paragraph (c)(10) of this section.

(ii) Each owner or operator of an affected source subject to § 63.703(c)(5) of this subpart shall demonstrate continuous compliance as required by paragraph (c)(8) of this section.

(iii) Each owner or operator of an affected source subject to § 63.703(d)(2) of this subpart shall demonstrate continuous compliance as required by paragraph (e) of this section.

(iv) Each owner or operator of an affected source subject to § 63.703(g) of this subpart shall demonstrate continuous compliance as required by paragraph (d) of this section.

(2) Compliance monitoring shall be subject to the following provisions.

(i) Except as allowed by paragraph (c)(3)(i)(C) of this section, all continuous emission monitors shall comply with performance specification (PS) 8 or 9 in 40 CFR part 60, appendix B, as appropriate depending on whether volatile organic compound (VOC) or HAP concentration is being measured. The requirements in appendix F of 40 CFR part 60 shall also be followed. In conducting the quarterly audits required by appendix F, owners or operators must challenge the monitors with compounds representative of the gaseous emission stream being controlled.

(ii) All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. The thermocouple calibration shall be verified or replaced every 3 months. The replacement shall be done either if the owner or operator chooses not to calibrate the thermocouple, or if the thermocouple cannot be properly calibrated.

(iii) If the effluent from multiple emission points are combined prior to being channeled to a common control device, the owner or operator is required only to monitor the common control device, not each emission point.

(3) Owners or operators complying with § 63.703(c), (e)(1)(i), (f)(1)(i), or (i) through the use of a control device and establishing a site-specific operating

parameter in accordance with § 63.704(b)(1) shall fulfill the requirements of paragraphs (c)(3)(i) of this section and paragraph (c)(3)(ii), (iii), (iv), or (v) of this section, as appropriate.

(i) The owner or operator shall install, calibrate, operate, and maintain a continuous emission monitor.

(A) The continuous emission monitor shall be used to measure continuously the total HAP or VOC concentration at both the inlet and the outlet whenever HAP from magnetic tape manufacturing operations are vented to the control device, if continuous compliance is demonstrated through a percent efficiency calculation [§ 63.704(b)(1)(ii)]; or

(B) The continuous emission monitor shall be used to measure continuously the total outlet HAP or VOC concentration whenever HAP from magnetic tape manufacturing operations are vented to the control device, if the provisions of § 63.704(b)(1)(i) are being used to determine continuous compliance.

(C) For owners or operators using a nonregenerative carbon adsorber, in lieu of using continuous emission monitors as specified in paragraph (c)(3)(i)(A) or (B) of this section, the owner or operator may use a portable monitoring device to monitor total HAP or VOC concentration at the inlet and outlet, or outlet of the carbon adsorber, as appropriate.

(1) The monitoring device shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications.

(2) The monitoring device shall meet the requirements of part 60, appendix A, method 21, sections 2, 3, 4.1, 4.2, and 4.4. For the purposes of paragraph (c)(3)(i)(C) of this section, the words "leak definition" in method 21 shall be the outlet concentration determined in accordance with § 63.704(b)(1). The calibration gas shall either be representative of the compounds to be measured or shall be methane, and shall be at a concentration associated with 125 percent of the expected organic compound concentration level for the carbon adsorber outlet vent.

(3) The probe inlet of the monitoring device shall be placed at approximately the center of the carbon adsorber outlet vent. The probe shall be held there for at least 5 minutes during which flow into the carbon adsorber is expected to occur. The maximum reading during that period shall be used as the measurement.

(ii) If complying with § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) through the use of a carbon adsorption system with a common exhaust stack for all of the carbon vessels, the owner or operator shall not operate the control device at an average control efficiency less than that required by § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i) or at an average outlet concentration exceeding the site-specific operating parameter value or that required by § 63.703(i), for three consecutive adsorption cycles. Operation in this manner shall constitute a violation of § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i).

(iii) If complying with § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) through the use of a carbon adsorption system with individual exhaust stacks for each of the multiple carbon adsorber vessels, the owner or operator shall not operate any carbon adsorber vessel at an average control efficiency less than that required by § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i), or at an average outlet concentration exceeding the site-specific operating parameter value or that required by § 63.703(i), as calculated daily using a 3-day rolling average. Operation in this manner shall constitute a violation of § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i).

(iv) If complying with § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) through the use of any control device other than a carbon adsorber, the owner or operator shall not operate the control device at an average control efficiency less than that required by § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i), or at an average outlet concentration exceeding the site-specific operating parameter value or that required by § 63.703(c)(2) or (i), as calculated for any 3-hour period. Operation in this manner shall constitute a violation of § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i).

(v) If complying with § 63.703(c)(1) through the use of a nonregenerative carbon adsorber, in lieu of the requirements of paragraphs (c)(3)(ii) or (iii) of this section, the owner or operator may:

(A) monitor the VOC or HAP concentration of the adsorber exhaust daily or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater; operation of the control device at a HAP or VOC concentration greater than that determined in accordance with § 63.704(b)(1)(iii) shall constitute a violation of § 63.703(c)(1), (e)(1)(i), or (f)(1)(i); or

(B) replace the carbon in the carbon adsorber system with fresh carbon at a regular predetermined time interval as determined in accordance with § 63.704(b)(5); failure to replace the carbon at this predetermined time interval shall constitute a violation of § 63.703(c)(1), (e)(1)(i), or (f)(1)(i).

(4) Owners or operators complying with § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) through the use of a condenser as the add-on air pollution control device, and demonstrating compliance in accordance with § 63.704(b)(2), shall install, calibrate, operate, and maintain a thermocouple to measure continuously the temperature of the condenser vapor exhaust stream whenever HAP from magnetic tape manufacturing operations are vented to the control device. Operation of the control device at an average vapor exhaust temperature greater than the site-specific operating parameter value or values established in accordance with § 63.704(b)(2) for any 3-hour period shall constitute a violation of § 63.703(c)(1), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i) or (i).

(5) Owners or operators complying with § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i) through the use of a thermal incinerator and demonstrating compliance in accordance with

§ 63.704(b)(3) shall install, calibrate, operate, and maintain a thermocouple to measure continuously the combustion temperature whenever HAP from magnetic tape manufacturing operations are vented to the control device. Operation of the control device at an average combustion temperature less than the operating parameter value or values established in accordance with § 63.704(b)(3) for any 3-hour period shall constitute a violation of § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i).

(6) Owners or operators complying with § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i) through the use of a catalytic incinerator and demonstrating compliance in accordance with § 63.704(b)(4) shall install, calibrate, operate, and maintain a thermocouple to measure continuously the gas temperature both upstream and downstream of the catalyst bed whenever HAP from magnetic tape manufacturing operations are vented to the control device. Operation of the control device at an average upstream gas temperature, or at an average gas temperature difference across the catalyst bed, less than the operating parameter values established in accordance with § 63.704(b)(4) for any 3-hour period shall constitute a

violation of § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), or (f)(1)(i).

(7) Owners or operators complying with § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) by capturing emissions through a room, enclosure, or hood shall install, calibrate, operate, and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with § 63.704(b)(6) whenever HAP from magnetic tape manufacturing operations are vented through the capture device. Operation of the capture device at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.704(b)(6) for any 3-hour period shall constitute a violation of § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i).

(8) The owner or operator of an affected source complying with § 63.703(c)(5) shall demonstrate continuous compliance by using a coating that has a HAP content of no greater than 0.18 kilograms of HAP per liter of coating solids, as measured in accordance with § 63.705(c)(5), and by maintaining and reporting the records required by §§ 63.706(f) and 63.707(e) and

(i)(2).

(9) For owners or operators complying with § 63.703(c)(1), (c)(3), or (c)(4) through the use of a solvent recovery device and demonstrating initial compliance in accordance with the provisions of § 63.705(c)(1), continuous compliance shall be demonstrated using procedures in § 63.705(c)(1) and through the recordkeeping and reporting requirements of §§ 63.706(d), 63.707(d), and 63.707(i)(5). The provisions of § 63.8(b)(2) and (3), (c), (d), (e), (f), and (g)(1), and (2) of subpart A do not apply.

(10) The owner or operator of an affected emission point using a vent system that contains bypass lines (not including equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes) that could potentially divert a vent stream away from the control device used to comply with § 63.703(c)(1), (c)(2), (c)(3), (c)(4), (e)(1)(i), (f)(1)(i), or (i) shall:

(i) Install, calibrate, maintain, and operate a flow indicator that provides a record of vent stream flow at least once every 15 minutes; records shall be generated as specified in § 63.706(c)(1); and the flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

(ii) Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration; a visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line; or

(iii) Ensure that any bypass line valve is in the closed position through continuous monitoring of valve position; the monitoring system shall be inspected at least once every month to ensure that it is functioning properly; or

(iv) Use an automatic shutdown system in which any HAP-emitting operations are ceased when flow from these operations is diverted away from the control device to any bypass line; the automatic system shall be inspected at least once every month to ensure that it is functioning properly.

(d) Owners or operators complying with § 63.703(g) shall demonstrate continuous compliance in accordance with paragraph (d)(1) or (d)(2) of this section.

(1) An owner or operator that established the steam-to-feed ratio as the site-specific operating parameter in accordance with § 63.704(b)(10)(i) shall continuously measure the steam-to-feed ratio whenever HAP-containing wastewater from magnetic tape manufacturing operations is being fed to the steam stripper. Operation of the steam stripper at a steam-to-feed ratio less than the operating parameter value or values established in accordance with § 63.704(b)(10)(i) for any 3-hour period shall constitute a violation of § 63.703(g).

(2) An owner or operator that established the total outlet VOHAP concentration of the wastewater discharge as the site-specific operating parameter in accordance with § 63.704(b)(10)(ii) shall measure the total VOHAP concentration of the wastewater discharge once per month. Operation of the control device at an outlet VOHAP concentration greater than the operating parameter value or values established in accordance with § 63.704(b)(10)(ii) for any month shall constitute a violation of § 63.703(g).

(e) Owners or operators complying with § 63.703(d)(2) of this subpart through the use of a baghouse or fabric filter shall perform visible emission testing each day that particulate HAP transfer occurs, using the procedures in § 63.705(b)(10). Owners or operators shall also install, calibrate, and operate the instrumentation necessary to continuously monitor the ventilation air flow rate in the inlet duct to the baghouse or fabric filter whenever particulate HAP transfer occurs. The occurrence of visible emissions shall constitute a violation of § 63.703(d)(2), and the operation of the baghouse or fabric filter at a flow rate less than the value or values established in accordance with § 63.704(b)(7) for any 3-hour period shall constitute a violation of § 63.703(d)(2).

(f) An owner or operator who uses an air pollution control device not listed in § 63.704 to comply with § 63.703(c), (e)(1)(i), (f)(1)(i), or (i), or a device other than a steam stripper to comply with § 63.703(g) shall submit to the Administrator a description of the device, test data verifying the performance of the device, and appropriate site-specific operating parameters that will be monitored to demonstrate continuous compliance with the standard. The monitoring plan submitted by an owner or operator in accordance with this paragraph is subject to approval by the Administrator.

### § 63.705 Performance test methods and procedures to determine initial compliance.

(a) Except as specified in § 63.705(a)(1) through (3), to determine initial compliance with the emission limits under § 63.703(c), (d)(2), (e)(1), (f)(1), and (g), the owner or operator shall conduct an initial performance demonstration as required under § 63.7 using the procedures and test methods listed in § 63.7 and § 63.705. If multiple emission points are vented to one common control device to meet the requirements of § 63.703(c), (d)(2), (e)(1), and (f)(1), only one performance test is required to demonstrate initial compliance for that group of emission points. This section also contains initial compliance demonstration procedures (other than testing) for owners or operators subject to § 63.703(c), (d)(1), (e)(1)(ii), (f)(1)(ii), and (g).

(1) A control device (not enclosure) used to comply with § 63.703(c), (e), or (f) does not need to be tested if each of the following criteria are met:

(i) it is used to control gaseous HAP emissions from an existing affected source;

(ii) it is operating prior to March 11, 1994;

(iii) it is equipped with continuous emission monitors for determining inlet and outlet total HAP or VOC concentration, such that a percent efficiency can be calculated; and

(iv) the continuous emission monitors are used to demonstrate continuous compliance in accordance with § 63.704(c)(3)(i).

(2) The owner or operator is not required to conduct an initial performance test if the requirements of § 63.7(e)(2)(iv) or § 63.7(h) are met.

(3) An owner or operator is not required to conduct an initial performance test for a capture device when:

(i) the room, enclosure, or vent was previously tested to demonstrate compliance with subpart SSS of part 60; and

(ii) sufficient data were gathered during the test to establish operating parameter values in accordance with § 63.704(b)(6)(i), (ii), and (iii).

(b) When an initial compliance demonstration is required by this subpart, the procedures in paragraphs (b)(1) through (b)(10) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) EPA Method 24 of appendix A of part 60 is used to determine the VOC content in coatings. If it is

demonstrated to the satisfaction of the Administrator that plant coating formulation data are equivalent to EPA Method 24 results, formulation data may be used. In the event of any inconsistency between an EPA Method 24 test and an affected source's formulation data, the EPA Method 24 test will govern. For EPA Method 24, the coating sample must be a 1-liter sample taken into a 1-liter container at a location and time such that the sample will be representative of the coating applied to the base substrate (i.e., the sample shall include any dilution solvent or other VOC added during the manufacturing process). The container must be tightly sealed immediately after the sample is taken. Any solvent or other VOC added after the sample is taken must be measured and accounted for in the calculations that use EPA Method 24 results.

(2) Formulation data is used to determine the HAP content of coatings.

(3) Either EPA Method 18 or EPA Method 25A of appendix A of part 60, as appropriate to the conditions at the site, shall be used to determine HAP or VOC concentration of air exhaust streams as required by § 63.705(c). The owner or operator shall submit notice of the intended test method to the Administrator for

approval along with the notification of the performance test required under § 63.7(b). Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in paragraphs (b)(3)(i) and (ii) of this section, the test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(i) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to § 63.705(c)(2) or (4), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(ii) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.705(c)(3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(4) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(5) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(6) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(7) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(8) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(9) Wastewater analysis shall be conducted in accordance with paragraph (b)(9)(i) or (b)(9)(ii) of this section.

(i) Use Method 305 of 40 CFR part 63, appendix A and the equations in paragraphs (b)(9)(i)(A) and (B) of this section to determine the total VOHAP concentration of a wastewater stream.

(A) The following equation shall be used to calculate the VOHAP concentration of an individually speciated HAP.

$$C_i = \left( C_C * \frac{MW}{24.055} * \frac{P_i}{760} * \frac{293}{T_i} * t * L * 10^3 \right) / M_S$$

where:

$C_i$ =

VOHAP concentration of the individually-speciated organic HAP in the wastewater, parts per million by weight.

$C_C$ =

Concentration of the organic HAP (i) in the gas stream, as measured by Method 305 of appendix A of this part, parts per million by volume on a dry basis.

$M_S$ =

Mass of sample, from Method 305 of appendix A of this part, milligrams.

MW =

Molecular weight of the organic HAP (i), grams per gram-mole.

24.055 =

Ideal gas molar volume at 293 ° Kelvin and 760 millimeters of mercury, liters per gram-mole.

$P_i$ =

Barometric pressure at the time of sample analysis, millimeters mercury absolute.

760 =

Reference or standard pressure, millimeters mercury absolute.

293 =

Reference or standard temperature, °Kelvin.

$T_i$ =

Sample gas temperature at the time of sample analysis, °Kelvin.

t =

Actual purge time, from Method 305 of appendix A of this part, minutes.

L =

Actual purge rate, from Method 305 of appendix A of this part, liters per minute.

$10^3$ =

Conversion factor, milligrams per gram.

(B) Total VOHAP concentration (stream) can be determined by summing the VOHAP concentrations of all individually speciated organic HAP in the wastewater.

$$C_{stream} = \sum_{i=1}^{n} C_i$$

where:

$C_{stream}$ =

Total VOHAP concentration of wastewater stream.

n =

Number of individual organic HAP (i) in the wastewater stream.

$C_i$ =

VOHAP concentration of individual organic HAP (i) calculated according to the procedures in paragraph (b)(9)(i)(A) of this section.

(ii) Use a test method or results from a test method that measures organic HAP concentrations in the wastewater, and that has been validated according to section 5.1 or 5.3 of Method 301 of appendix A of this part. The specific requirement of Method 305 of appendix A of this part to collect the sample into polyethylene glycol would not be applicable.

(A) If measuring the total VOHAP concentration of the exit stream in accordance with §§ 63.703(g)(1)(ii) and 63.705(h)(2), the concentrations of the individual organic HAP measured in the water shall be corrected to their concentrations had they been measured by Method 305 of appendix A of this part. This is done by multiplying each concentration by the compound-specific fraction measured factor ($F_M$) listed in table 34 of 40 CFR part 63, subpart G.

(B) If measuring the total HAP concentration of an inlet and outlet wastewater stream to demonstrate compliance with § 63.703(g)(1)(i) and following the procedures of § 63.705(h)(3), the concentrations of the individual organic HAP measured in the water do not need to be corrected.

(10) EPA Method 22 of appendix A of part 60 is used to determine visible emissions. Visible emissions testing shall be conducted for a minimum of 6 minutes during a time when particulate HAP transfer, as defined in this subpart, is occurring.

(c) Initial compliance demonstrations. Except as stipulated in § 63.705(a), each owner or operator subject to the requirements of § 63.703(c) must demonstrate initial compliance with the requirements of this subpart by following the procedures of paragraphs (c)(1), (2), (3), (4), (5), or (6) and paragraph (d) of this section, as applicable. Each owner or operator subject to § 63.703(d), (e), (f), and (g) must demonstrate initial compliance with the requirements of this subpart by following the procedures of paragraphs (e), (f), (g), and (h) of this section, as appropriate.

(1) To demonstrate initial and continuous

compliance with § 63.703(c)(1), (c)(3), or (c)(4) when emissions from only the affected coating operations are controlled by a dedicated solvent recovery device, each owner or operator of the affected coating operation may perform a liquid-liquid HAP or VOC material balance over rolling 7-day periods in lieu of demonstrating compliance through the methods in paragraphs (c)(2), (c)(3), or (c)(4) of this section. Results of the material balances calculation performed to demonstrate initial compliance shall be submitted to the Administrator with the notification of compliance status required by § 63.9(h) and § 63.707(d). When demonstrating compliance by this procedure, § 63.7(e)(3) of subpart A does not apply. The amount of liquid HAP or VOC applied and recovered shall be determined as discussed in paragraph (c)(1)(iii) of this section. The overall HAP or VOC emission reduction (R) is calculated using equation 1:

$$R = \frac{M_r}{\sum_{i=1}^{n} [W_{oi}\, M_{ci} - RS_i]} \times 100 \qquad \text{(Eq. 1)}$$

(i) The value of $RS_i$ is zero unless the owner or operator submits the following information to the Administrator for approval of a measured $RS_i$ value that is greater than zero:

(A) measurement techniques; and

(B) documentation that the measured value of $RS_i$ exceeds zero.

(ii) The measurement techniques of paragraph (c)(1)(i)(A) of this section shall be submitted to the Administrator for approval with the notification of performance test required under § 63.7(b).

(iii) Each owner or operator demonstrating compliance by the test method described in paragraph (c)(1) of this section shall:

(A) measure the amount of coating applied at the coater;

(B) determine the VOC or HAP content of all coating applied using the test method specified in § 63.705(b)(1) or (2);

(C) install, calibrate, maintain, and operate, according to the manufacturer's specifications, a device that indicates the amount of HAP or VOC recovered by the solvent recovery device over rolling 7-day periods; the device shall be certified by the manufacturer to be accurate to within ± 2.0 percent, and this certification shall be kept on record;

(D) measure the amount of HAP or VOC recovered; and

(E) calculate the overall HAP or VOC emission reduction (R) for rolling 7-day periods using Equation 1.

(iv) Compliance is demonstrated if the value of R is equal to or greater than the overall HAP control efficiency required by § 63.703(c)(1), (c)(3), or (c)(4).

(2) To demonstrate initial compliance with § 63.703(c)(1), (c)(2), (c)(3), or (c)(4) when affected HAP emission points are controlled by an emission control device other than a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel, each owner or operator of an affected source shall perform a gaseous emission test using the following procedures.

(i) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP or VOC emissions can be accurately determined by the applicable test methods and procedures specified in § 63.705(b)(3) through (8).

(ii) Determine capture efficiency from the HAP emission points by capturing, venting, and measuring all HAP emissions from the HAP emission points. During a performance test, the owner or operator of affected HAP emission points located in an area with other gaseous emission sources not affected by this subpart shall isolate the affected HAP emission points from all other gaseous emission points by one of the following methods:

(A) build a temporary total enclosure (see § 63.702) around the affected HAP emission point(s); or

(B) shut down all gaseous emission points not affected by this subpart and continue to exhaust fugitive emissions from the affected HAP emission points through any building ventilation system and other room exhausts such as drying ovens. All ventilation air must be vented through stacks suitable for testing.

(iii) Operate the emission control device with all affected HAP emission points connected and operating.

(iv) Determine the efficiency (E) of the control device using equation 2:

$$E = \frac{\sum_{i=1}^{n} Q_{bi}\, C_{bi} - \sum_{j=1}^{P} Q_{aj}\, C_{aj}}{\sum_{i=1}^{n} Q_{bi}\, C_{bi}} \qquad \text{(Eq. 2)}$$

(v) Determine the efficiency (F) of the capture system using equation 3:

$$F = \frac{\sum_{i=1}^{n} Q_{di}\, C_{di}}{\sum_{i=1}^{n} Q_{di}\, C_{di} + \sum_{k=1}^{P} Q_{fk}\, C_{fk}} \qquad \text{(Eq. 3)}$$

(vi) For each HAP emission point subject to

§ 63.703, compliance is demonstrated if either of the following conditions are met:

(A) the product of (E)x(F) is equal to or greater than the overall HAP control efficiency required by § 63.703(c)(1), (c)(3), or (c)(4); or

(B) when the owner or operator is subject to § 63.703(c)(2), the value of F is equal to 1 and the value of $C_{aj}$ at the outlet of the incinerator is demonstrated to be no greater than 20 ppmv by compound, on a dry basis.

(3) To demonstrate compliance with § 63.703(c)(1), (c)(3), or (c)(4) when affected HAP emission points are controlled by a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel, each owner or operator of an affected source shall perform a gaseous emission test using the following procedures:

(i) Construct the overall HAP emission reduction system so that each volumetric flow rate and the total HAP emissions can be accurately determined by the applicable test methods and procedures specified in § 63.705(b)(3) through (8);

(ii) Assure that all HAP emissions from the affected HAP emission point(s) are segregated from gaseous emission points not affected by this subpart and that the emissions can be captured for measurement, as described in § 63.705(c)(2)(ii)(A) and (B);

(iii) Operate the emission control device with all affected HAP emission points connected and operating;

(iv) Determine the efficiency ($H_v$) of each

$$H_v = \frac{Q_{gv}\,C_{gv} - Q_{hv}\,C_{hv}}{Q_{gv}\,C_{gv}} \qquad \text{(Eq. 4)}$$

individual carbon adsorber vessel (v) using equation 4:

(v) Determine the efficiency of the carbon adsorption system ($H_{sys}$) by computing the average efficiency of the individual carbon adsorber vessels as weighted by the volumetric flow rate ($Q_{hv}$) of each individual carbon adsorber vessel (v) using equation 5:

$$H_{sys} = \frac{\sum_{v-1}^{q} H_v\,Q_{hv}}{\sum_{v-1}^{q} Q_{hv}} \qquad \text{(Eq. 5)}$$

(vi) Determine the efficiency (F) of the capture system using equation (3).

(vii) For each HAP emission point subject to § 63.703(c), compliance is demonstrated if the product of ($H_{sys}$) x (F) is equal to or greater than the overall HAP control efficiency required by § 63.703(c)(1), (c)(3), or (c)(4).

(4) An alternative method of demonstrating compliance with § 63.703(c)(1) through (c)(4) is the installation of a total enclosure around the affected HAP emission point(s) and the ventilation of all HAP emissions from the total enclosure to a control device with the efficiency or outlet concentration specified in paragraph (c)(4)(iii) of this section. If this method is selected, the compliance test methods described in paragraphs (c)(1), (c)(2), and (c)(3) of this section are not required. Instead, each owner or operator of an affected source shall:

(i) Demonstrate that a total enclosure is installed. An enclosure that meets the requirements in paragraphs (c)(4)(i)(A) through (D) of this section shall be considered a total enclosure. The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected HAP emission point(s) are contained and vented to the control device.

The requirements for automatic approval are as follows:

(A) total area of all natural draft openings shall not exceed 5 percent of the total surface area of the total enclosure's walls, floor, and ceiling;

(B) all sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(C) average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(1) all forced makeup air ducts and all exhaust ducts are constructed so that the volumetric flow rate in each can be accurately determined by the test methods and procedures specified in § 63.705(b)(4) and (5); volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and

(2) determine FV by equation 6:

$$FV = \frac{\sum_{j=1}^{n} Q_{out\ j} - \sum_{i=1}^{p} Q_{in\ i}}{\sum_{k=1}^{q} A_k} \qquad \text{(Eq. 6)}$$

(D) the air passing through all natural draft openings shall flow into the enclosure continuously. If FV is less than or equal to 9,000 meters per hour, the continuous inward flow of air shall be verified by continuous observation using smoke tubes, streamers, tracer gases, or other means approved by the Administrator over the period that the volumetric flow rate tests required to determine FV are carried out. If FV is greater than 9,000 meters per hour, the direction of airflow through the natural draft openings shall be presumed to be inward at all times without verification.

(ii) Determine the control device efficiency using equation (2) or equations (4) and (5), as applicable, and the test methods and procedures specified in § 63.705(b)(3) through (8).

(iii) Be in compliance if either of the following criteria are met:

(A) the installation of a total enclosure is demonstrated and the value of E determined from equation (2) (or the value of $H_{sys}$ determined from equations (4) and (5), as applicable) is equal to or greater than the overall HAP control efficiency required by § 63.703(c)(1), (c)(3), or (c)(4); or

(B) when the owner or operator is subject to § 63.703(c)(2), the installation of a total enclosure is demonstrated and the value of $C_{aj}$ at the outlet of the incinerator is demonstrated to be no greater than 20 ppmv by compound, on a dry basis.

(5) To demonstrate initial and continuous compliance with § 63.703(c)(5), each owner or operator of an affected source shall determine the mass of HAP contained in the coating per volume of coating solids applied for each batch of coating applied, according to the procedures of paragraphs (c)(5)(i) through (iii) of this section. If a batch of coating is identical to a previous batch of coating applied, the original calculations can be used to demonstrate the compliance of subsequent identical batches. The calculation of the HAP content of the coating used to demonstrate initial compliance with § 63.703(c)(5) shall be submitted to the Administrator with the notification of compliance status required by § 63.9(h) and § 63.707(e). When demonstrating compliance by this procedure, § 63.7(e)(3) of subpart A does not apply.

(i) Determine the weight fraction of HAP in each coating applied using formulation data as specified in § 63.705(b)(2);

(ii) Determine the volume of coating solids in each coating applied from the facility records; and

(iii) Compute the mass of HAP per volume of coating solids by equation 7:

$$G = \frac{W_{oi}M_{ci}}{L_{si}V_{ci}} \qquad \text{(Eq. 7)}$$

(iv) The owner or operator of an affected source is in compliance with § 63.703(c)(5) if the value of G is less than or equal to 0.18 kilograms of HAP per liter of coating solids applied.

(6) When nonregenerative carbon adsorbers are used to comply with § 63.703(c)(1), the owner or operator may conduct a design evaluation to demonstrate initial compliance in lieu of following the compliance test procedures of paragraphs (c)(1), (2), (3), or (4) of this section. The design evaluation shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature, and shall establish the design exhaust vent stream organic compound concentration level, capacity of the carbon bed, type and working capacity of activated carbon used for the carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and the emission point operating schedule.

(d)(1) To demonstrate initial compliance with § 63.703(c) when hard piping or ductwork is used to direct HAP emissions from a HAP source to the control device, each owner or operator shall demonstrate upon inspection that the criteria of paragraph (d)(1)(i) and paragraph (d)(1)(ii) or (iii) are met.

(i) The equipment must be vented to a control device.

(ii) The control device efficiency (E or $H_{sys}$, as applicable) determined using equation (2) or equations (4) and (5), respectively, and the test methods and procedures specified in § 63.705(b)(3) through (8), must be equal to or greater than the overall HAP control efficiency required by § 63.703(c)(1), (c)(3), or (c)(4), or the outlet concentration must be no greater than 20 ppmv by compound, on a dry basis, as required by § 63.703(c)(2).

(iii) When a nonregenerative carbon adsorber is used, the ductwork from the affected emission point(s) must be vented to the control device and the carbon adsorber must be demonstrated, through the procedures of § 63.705(c)(1), (2), (3), (4), or (6) to meet the requirements of § 63.703(c)(1).

(2) To demonstrate initial compliance with provisions for mix preparation equipment, owners or operators shall, in addition to paragraph (d)(1) of this section, ensure that covers are closed at all times except when adding ingredients, withdrawing samples,

transferring the contents, or making visual inspection when such activities cannot be carried out with the cover in place. Such activities shall be carried out through ports of the minimum practical size.

(e) To demonstrate initial compliance with § 63.703(e), the owner or operator of a wash sink subject to the provisions of this standard shall:

(1) If complying with § 63.703(e)(1)(ii), maintain at least the required minimum freeboard ratio at all times; or

(2) If complying with § 63.703(e)(1)(i), the owner or operator of an existing wash sink that vents emissions from the wash sink to a control device prior to March 11, 1994 must demonstrate that the control device is at least 95-percent efficient in accordance with § 63.705(c)(2), (3), (4), or (6); or

(3) If complying with § 63.703(e)(1)(i), each owner or operator that vents emissions from the wash sink, through a capture device, and to a control device starting on or after March 11, 1994, must demonstrate that the overall HAP control efficiency is at least 88 percent using the test methods and procedures in § 63.705(c)(2), (3), (4), or (6).

(f) To demonstrate initial compliance with

§ 63.703(f), the owner or operator shall:

(1) If complying with § 63.703(f)(1)(ii), install and use a closed system for flushing fixed lines; or

(2) If complying with § 63.703(f)(1)(i), each owner or operator that vents emissions from the flushing operation, through a capture device, and to a control device must demonstrate that the overall HAP control efficiency is at least 95 percent using the test methods and procedures in § 63.705(c)(2), (3), (4), or (6).

(g) To demonstrate initial compliance with § 63.703(d), the owner or operator shall:

(1) If complying with § 63.703(d)(1), install an enclosed transfer device for conveying particulate HAP, and use this device, following manufacturer's specifications or other written procedures developed for the device; or

(2) If complying with § 63.703(d)(2):

(i) test the baghouse or fabric filter to demonstrate that there are no visible emissions using the test method in § 63.705(b)(10); and

(ii) provide engineering calculations in accordance with § 63.707(h) of this subpart with the performance test results required by § 63.7(g)(1) and § 63.9(h) of subpart A, to demonstrate that the ventilation rate from the particulate transfer activity to the control device is sufficient for capturing the particulate HAP.

(h) To demonstrate initial compliance with § 63.703(g), the owner or operator of an affected source shall follow the compliance procedures of either paragraph (h)(1), paragraph (h)(2), or paragraph (h)(3) of this section.

(1) The owner or operator shall submit to the permitting authority with the notification of compliance status required by § 63.9(h) and § 63.707(f) the design specifications demonstrating that the control technique meets the required efficiency for each HAP compound. For steam strippers, these specifications shall include at a minimum: feed rate, steam rate, number of theoretical trays, number of actual trays, feed composition, bottoms composition, overheads composition, and inlet feed temperature.

(2) The owner or operator shall demonstrate the compliance of a treatment process with the parts per million by weight (ppmw) wastewater stream concentration limits specified in § 63.703(g)(1)(ii) by measuring the concentration of total VOHAP at the outlet of the treatment process using the method specified in § 63.705(b)(9)(i) or (ii). A minimum of three

representative samples of the wastewater stream exiting the treatment process, which are representative of normal flow and concentration conditions, shall be collected and analyzed. Wastewater samples shall be collected using the sampling procedures specified in Method 25D of appendix A of part 60. Where feasible, samples shall be taken from an enclosed pipe prior to the wastewater being exposed to the atmosphere. When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner that minimizes exposure of the sample to the atmosphere and loss of organic HAP prior to analysis.

(3) The owner or operator shall demonstrate the compliance of a treatment process with the HAP fraction removed requirement specified in § 63.703(g)(1)(i) by measuring the concentration of each HAP at the inlet and outlet of the treatment process using the method specified in § 63.705(b)(9)(i) or (ii) and the procedures of paragraphs (h)(3)(i) through (iii) of this section.

(i) The same test method shall be used to analyze the wastewater samples from both the inlet and outlet of the treatment process.

(ii) The HAP mass flow rate of each individually speciated HAP compound entering the treatment process

($E_b$) and exiting the treatment process ($E_a$) shall be determined by computing the product of the flow rate of the wastewater stream entering or exiting the treatment process, and the HAP concentration of each individual HAP compound of the entering or exiting wastewater streams, respectively.

(A) The flow rate of the entering and exiting wastewater streams shall be determined using inlet and outlet flow meters, respectively.

(B) The average HAP concentration of each individual HAP of the entering and exiting wastewater streams shall be determined according to the procedures specified in either paragraph (b)(9)(i)(A) or (b)(9)(ii)(B) of this section. If measuring the VOHAP concentration of an individual HAP in accordance with § 63.705(b)(9)(i)(A), the concentrations of the individual organic VOHAP measured in the water shall be corrected to a HAP concentration by dividing each VOHAP concentration by the compound-specific fraction measured factor ($F_M$) listed in table 34 of 40 CFR part 63, subpart G.

(C) Three grab samples of the entering wastewater stream shall be taken at equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of three runs.

(D) Three grab samples of the exiting wastewater stream shall be taken at equally spaced time intervals over a 1-hour period. Each 1-hour period constitutes a run, and the performance test shall consist of a minimum of three runs conducted over the same 3-hour period at which the total HAP mass flow rate entering the treatment process is determined.

(E) The HAP mass flow rates of each individual HAP compound entering and exiting the treatment process are calculated as follows:

$$E_b = \frac{K}{n \times 10^6} \left( \sum_{p-1}^{n} V_{bp} C_{bp} \right)$$

$$E_a = \frac{K}{n \times 10^6} \left( \sum_{p-1}^{n} V_{ap} C_{ap} \right)$$

where:

$E_b$ =

HAP mass flow rate of an individually speciated HAP compound entering the treatment process, kilograms per hour.

$E_a$ =

HAP mass flow rate of an individually speciated HAP compound exiting the treatment process, kilograms per hour.

$K$ =

Density of the wastewater stream, kilograms per cubic meter.

$V_{bp}$ =

Average volumetric flow rate of wastewater entering the treatment process during each run p, cubic meters per hour.

$V_{ap}$ =

Average volumetric flow rate of wastewater exiting the treatment process during each run p, cubic meters per hour.

$C_{bp}$ =

Average HAP concentration of an individually speciated HAP in the wastewater stream entering the treatment process during each run p, parts per million by weight.

$C_{ap}$ =

Average HAP concentration of an individually speciated HAP in the wastewater stream exiting the treatment process during each run p, parts per million by weight.

$n$ =

Number of runs.

(iii) The fraction removed across the treatment process for each individually speciated HAP compound shall be calculated as follows:

$$F_R = \frac{E_b - E_a}{E_b}$$

where:

$F_R$ =

Fraction removed for an individually speciated HAP compound of the treatment process.

$E_b$ =

HAP mass flow rate of an individually speciated HAP compound entering the treatment process, kilograms per hour.

$E_a$ =

HAP mass flow rate of an individually speciated HAP compound exiting the treatment process, kilograms per hour.

(i) Startups and shutdowns are normal operation for this source category. Emissions from these activities are to be included when determining if the standards specified in § 63.703 are being attained.

(j) An owner or operator who uses compliance techniques other than those specified in this subpart shall submit a description of those compliance procedures, subject to the Administrator's approval, in accordance with § 63.7(f) of subpart A.

### § 63.706 Recordkeeping requirements.

(a) Except as stipulated in § 63.703(b), (c)(5), and (h), the owner or operator of a magnetic tape manufacturing operation subject to this subpart shall fulfill all applicable recordkeeping requirements in § 63.10 of subpart A, as outlined in Table 1.

(b) The owner or operator of an affected source subject to this subpart that is also subject to the requirements of § 63.703(e)(1)(ii) (a minimum freeboard ratio of 75 percent), shall record whether or not the minimum freeboard ratio has been achieved every time that HAP solvent is added to the wash sink. A measurement of the actual ratio is not necessary for each record as long as the owner or operator has a reliable method for making the required determination. For example, the record may be made by comparing the HAP solvent level to a permanent mark on the sink that corresponds to a 75 percent freeboard ratio. A HAP solvent level in the sink higher than the mark would indicate the minimum ratio has not been achieved.

(c) The owner or operator of an affected source subject to this subpart that is subject to the requirements of § 63.704(c)(10) shall:

(1) If complying with § 63.704(c)(10)(i), maintain hourly records of whether the flow indicator was operating and whether flow was detected at any time during the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the monitor is not operating;

(2) If complying with § 63.704(c)(10)(ii), (iii), or (iv), maintain a record of monthly inspections, and the records of the times and durations of all periods when:

(i) flow was diverted through any bypass line such that the seal mechanism was broken;

(ii) the key for a lock-and-key type lock had been checked out;

(iii) the valve position on any bypass line changed to the open position; or

(iv) the diversion of flow through any bypass line caused a shutdown of HAP-emitting operations.

(d) The owner or operator of an affected source that is complying with § 63.703(c) by performing a material balance in accordance with § 63.705(c)(1) shall:

(1) Maintain a record of each 7-day rolling average calculation; and

(2) Maintain a record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered.

(e) The owner or operator of a magnetic tape manufacturing operation subject to the provisions of § 63.703(b) and (h) shall maintain records of the calculations used to determine the limits on the amount of HAP utilized as specified in § 63.703(b)(2), and of the HAP utilized in each month and the sum over each 12-month period.

(f) The owner or operator of an affected source subject to the provisions of § 63.703(c)(5) shall keep records of the HAP content of each batch of coating applied as calculated according to § 63.705(c)(5), and records of the formulation data that support the calculations. When a batch of coating applied is identical to a previous batch applied, only one set of records is required to be kept.

(g) The owner or operator of an affected source that is complying with § 63.703(c)(1) through the use of a nonregenerative carbon adsorber and demonstrating initial compliance in accordance with § 63.705(c)(6) shall maintain records to support the outlet VOC or HAP concentration value or the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.

(h) In accordance with § 63.10(b)(1) of subpart A, the owner or operator of an affected source subject to the provisions of this subpart shall retain all records required by this subpart and subpart A for at least 5 years following their collection.

### § 63.707 Reporting requirements.

(a) Except as stipulated in § 63.703(b), (c)(5), and (h), the owner or operator of a magnetic tape manufacturing operation subject to this subpart shall fulfill all applicable reporting requirements in § 63.7 through § 63.10, as outlined in Table 1. These reports shall be submitted to the Administrator or delegated State.

(b) The owner or operator of an existing magnetic tape manufacturing operation subject to § 63.703(b) and (h) shall include the values of the limits on the amount of HAP utilized as determined in § 63.703(b)(2), along with supporting calculations, in the initial notification report required by § 63.9(b).

(c) The owner or operator of a new magnetic tape manufacturing operation subject to § 63.703(h) shall include the values of the limits on the amount of HAP utilized as determined in § 63.703(b)(2), along with supporting calculations, and the amount of HAP expected to be utilized during the first consecutive 12-month period of operation in the initial notification report required by § 63.9(b).

(d) The owner or operator subject to § 63.703(c) and following the compliance provisions of § 63.705(c)(1) (material balance calculation) shall include with the notification of compliance status required by § 63.9(h) the results of the initial material balance calculation.

(e) The owner or operator subject to § 63.703(c)(5) and following the compliance provisions of § 63.705(c)(5) (low-HAP coating) shall include with the notification of compliance status required by § 63.9(h) the results of the initial low-HAP coating demonstration.

(f) The owner or operator subject to the provisions of § 63.703(g) and demonstrating compliance in accordance with § 63.705(h)(1) shall submit to the permitting authority with the notification of compliance status required by § 63.9(h) the design specifications demonstrating that the control technique meets the required efficiency. For steam strippers, these specifications shall include at a minimum: feed rate, steam rate, number of theoretical trays, number of actual trays, feed composition, bottoms composition, overheads composition, and inlet feed temperature.

(g) The owner or operator of an affected source that is complying with § 63.703(c)(1) through the use of a nonregenerative carbon adsorber and demonstrating initial compliance in accordance with § 63.705(c)(6) shall submit to the permitting authority with the notification of compliance status required by § 63.9(h) the design evaluation.

(h) The owner or operator of an affected source that is complying with § 63.703(d) through the use of a baghouse or fabric filter and demonstrating initial compliance in accordance with § 63.705(g)(2) shall submit to the permitting authority with the notification of compliance status required by § 63.9(h) the engineering calculations that support the minimum ventilation rate needed to capture HAP particulates for delivery to the control device.

(i) Excess emissions and continuous monitoring system performance report and summary reports shall be submitted as required by § 63.10(e).

(1) The owner or operator of an affected source subject to § 63.704 shall include deviations of monitored values from the operating parameter values required by § 63.704(c) in the reports. In the case of exceedances, the report must also contain a description and timing of the steps taken to address the cause of the exceedance.

(2) The owner or operator of an affected source subject to § 63.703(c)(5) shall report the HAP content of each batch of coating applied as the monitored operating parameter value in the reports.

(3) The owner or operator of an affected source subject to § 63.703(e)(1)(ii) and maintaining a minimum freeboard ratio of 75 percent shall report violations of the standard (freeboard ratio is less than 75 percent) in the reports.

(4) The owner or operator of an affected source subject to § 63.704(c)(10) of this subpart shall include records of any time period and duration of time that flow was diverted from the control device, as well as the results of monthly inspections required by § 63.704(c)(10)(ii), (iii), and (iv) in the reports.

(5) The owner or operator of an affected source complying with § 63.703(c) by performing a material balance calculation in accordance with § 63.705(c)(1)

shall report any exceedances of the standard, as demonstrated through the calculation, in the reports.

(j) The owner or operator of a magnetic tape manufacturing operation subject to the provisions of § 63.703(h) shall report the amount of HAP utilized in each 12-month period in an annual report to the Administrator according to the following schedule:

(1) For existing sources, the first report shall cover the 12-month period prior to the source's compliance date and shall be submitted to the Administrator no later than 30 days after the compliance date; and

(2) For new sources, the first report shall include the quantity of HAP that is expected to be utilized during the first 12 months of operation and shall be submitted to the Administrator no later than 30 days after the compliance date;

(3) Annual reports shall be submitted to the Administrator no later than 30 days after the last 12-month period included in the report; and

(4) A report shall also be submitted no later than 30 days after monthly records required to be maintained by § 63.706(e) indicate that any limit on the amount of HAP utilized has been exceeded. The report shall

indicate the amount by which the limit has been exceeded.

(k) The owner or operator establishing an alternate HAP outlet concentration limit in accordance with §§ 63.703(i) and 63.704(b)(11)(ii) shall:

(1) to support the proposed limit, submit the following within 180 days following completion of the performance test required by § 63.7:

(i) the performance test or CEM data collected to establish the limit;

(ii) records of when coating operations were down;

(iii) the rationale for the alternate proposed limit; and

(iv) a statement signed by a responsible official of the company that the control device was operated in accordance with good air pollution control practices and in the same manner it was operated to achieve compliance with the emission limitation for coating operations; and

(2) in the excess emissions and continuous monitoring system performance report and summary report required by § 63.10(e)(3), include parameter or CEM data to demonstrate compliance or noncompliance with the alternate outlet HAP concentration established in accordance with §§ 63.703(i) and 63.704(b)(11)(ii) once the limit is approved.

## § 63.708 Delegation of authority .

(a) In delegating implementation and enforcement authority to a State under § 111(b) of the Clean Air Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: no restrictions.

## TABLE 1. APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EE

| Reference | Applies to Subpart EE | Comment |
|---|---|---|
| 63.1(a)(1) | Yes | Additional terms defined in § 63.702(a); when overlap between subparts A and EE occurs, subpart EE takes precedence. |
| 63.1(a)(2)-(14) | Yes | |
| 63.1(b)(1)-(3) | Yes | |
| 63.1(c)(1) | Yes | Subpart EE specifies the applicability of each paragraph in subpart A to sources subject to subpart EE. |
| 63.1(c)(2) | No | The applicability of §§ 63.701(a)(2) and 63.703(b) and (h) to a source does not in and of itself make a source subject to part 70. |
| 63.1(c)(4)-(5) | Yes | |
| 63.1(e) | Yes | |
| 63.2 | Yes | Additional terms defined in 63.702(a); when overlap between subparts A and EE occurs, subpart EE takes precedence. |
| 63.3 | Yes | Units specific to subpart EE are defined in subpart EE. |
| 63.4(a)(1)-(3) | Yes | |
| 63.4(a)(5) | Yes | |
| 63.4(b) | Yes | |
| 63.4(c) | Yes | |
| 63.5(a) | Yes | |
| 63.5(b)(1) | Yes | |
| 63.5(b)(3)-(6) | Yes | |
| 63.5(d) | Yes | |
| 63.5(e) | Yes | |
| 63.5(f) | Yes | |
| 63.6(a) | Yes | |
| 63.6(b)(1)-(5) | Yes | |
| 63.6(b)(7) | Yes | |
| 63.6(c)(1)-(2) | Yes | |
| 63.6(c)(5) | Yes | |
| 63.6(e)(1)-(2) | Yes | |
| 63.6(e)(3) | Yes | Owners or operators of affected sources subject to subpart EE do not need to address startups and shutdowns because the emission limitations apply during these times. |
| 63.6(f)(1) | No | § 63.701(f) of subpart EE specifies when the standards apply. |
| 63.6(f)(2) (i)-(ii) | Yes | |
| 63.6(f)(2) (iii) | Yes | § 63.705(a)(3) of subpart EE includes additional circumstances under which previous capture device demonstrations are acceptable to show compliance. |
| 63.6(f)(2) (iv)-(v) | Yes | |
| 63.6(f)(3) | Yes | |

TABLE 1. (continued)

| Reference | Applies to Subpart EE | Comment |
|---|---|---|
| 63.6(g) | Yes | |
| 63.6(h)(1) | No | § 63.701(f) of subpart EE specifies when the standards apply. |
| 63.6(h)(2)(i) | Yes | |
| 63.6(h)(2)(iii) | Yes | |
| 63.6(h)(4) | Yes | This requirement applies only for the visible emission test required under § 63.705(g)(2). |
| 63.6(h)(5)(i)-(iii) | Yes | |
| 63.6(h)(5)(v) | No | |
| 63.6(h)(6) | Yes | |
| 63.6(h)(7) | No | |
| 63.6(h)(8) | Yes | |
| 63.6(h)(9) | No | |
| 63.6(i)(1)-(14) | Yes | § 63.703(c)(4) of subpart EE shall not be considered emissions averaging for the purposes of § 63.6(i)(4)(i)(B). |
| 63.6(i)(16) | Yes | |
| 63.6(j) | Yes | |
| 63.7(a)(1) | Yes | |
| 63.7(a)(2) (i)-(vi) | Yes | |
| 63.7(a)(2) (ix) | Yes | |
| 63.7(a)(3) | Yes | |
| 63.7(b) | Yes | |
| 63.7(c) | Yes | |
| 63.7(d) | Yes | |
| 63.7(e) | Yes | 63.7(e) establishes the minimum performance test requirements. This section does not preclude owners or operators from conducting multiple test runs under alternate operating conditions to establish an appropriate range of compliance operating parameter values in accordance with § 63.704(b)(11)(i) of subpart EE. Also as required in § 63.701(f) of subpart EE, the emissions standards apply during startup and shutdown. |
| 63.7(f) | Yes | |
| 63.7(g)(1) | Yes | |
| 63.7(g)(3) | Yes | |
| 63.7(h) | Yes | |
| 63.8(a)(1)-(2) | Yes | |
| 63.8(a)(4) | Yes | |
| 63.8(b)(1) | Yes | |
| 63.8(b)(2) | No | § 63.704 of subpart EE specifies monitoring locations; when multiple emission points are tied to one central control device, the monitors are located at the central control device. |

TABLE 1. (continued)

| Reference | Applies to Subpart EE | Comment |
|---|---|---|
| 63.8(b)(3) | Yes | |
| 63.8(c)(1)-(3) | Yes | |
| 63.8(c)(4) | Yes | Provisions related to COMS, however, do not apply. |
| 63.8(c)(5) | No | |
| 63.8(c)(6)-(8) | Yes | |
| 63.8(d) | Yes | |
| 63.8(e) | Yes | |
| 63.8(f)(1)-(6) | Yes | |
| 63.8(g)(1)-(5) | Yes | |
| 63.9(a) | Yes | |
| 63.9(b) | Yes | |
| 63.9(c) | Yes | |
| 63.9(d) | Yes | |
| 63.9(e) | Yes | |
| 63.9(f) | Yes | |
| 63.9(g)(1) | Yes | |
| 63.9(g)(2) | No | |
| 63.9(g)(3) | Yes | |
| 63.9(h)(1)-(3) | Yes | |
| 63.9(h)(5)-(6) | Yes | |
| 63.9(i) | Yes | |
| 63.9(j) | Yes | |
| 63.10(a) | Yes | |
| 63.10(b)(1) | Yes | |
| 63.10(b)(2) | Yes | Except information on startup and shutdown periods is not necessary because the standards apply during these time periods. |
| 63.10(b)(3) | Yes | |
| 63.10(c)(1) | Yes | |
| 63.10(c)(5)-(8) | Yes | Except information on startup and shutdown periods is not necessary because the standards apply during these times. |
| 63.10(c)(10)-(15) | Yes | Except information on startup and shutdown periods is not necessary because the standards apply during these times. |
| 63.10(d)(1)-(2) | Yes | |
| 63.10(d)(3) | Yes | This requirement applies only for the visible emissions test required under § 63.705(g)(2). The results of visible emissions tests under § 63.704(e) shall be reported as required in § 63.10(e)(3). |
| 63.10(d)(4) | Yes | |
| 63.10(d)(5) | Yes | Except information on startup and shutdown periods is not necessary because the standards apply during these times. |
| 63.(10)(e)(1) | Yes | |

TABLE 1. (continued)

| Reference | Applies to Subpart EE | Comment |
|---|---|---|
| 63.10(e)(2)(i) | Yes | |
| 63.10(e)(2)(ii) | No | |
| 63.10(e)(3)(i)-(v) | Yes | |
| 63.10(e)(3)(vi)-(viii) | Yes | Except emissions/CMS performance during startup and shutdown do not need to be specified because the standards apply during startup and shutdown. |
| 63.10(e)(4) | No | |
| 63.10(f) | Yes | |
| 63.11-63.15 | Yes | |