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National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2008–0334; FRL–8972–6]

RIN 2060–AM19

National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is issuing national emission standards for the control of hazardous air pollutants for nine area source categories in the chemical manufacturing sector: Agricultural Chemicals and Pesticides Manufacturing, Cyclic Crude and Intermediate Production, Industrial Inorganic Chemical Manufacturing, Industrial Organic Chemical Manufacturing, Inorganic Pigments Manufacturing, Miscellaneous Organic Chemical Manufacturing, Plastic Materials and Resins Manufacturing, Pharmaceutical Production, and Synthetic Rubber Manufacturing. The standards and associated requirements for the nine area source categories are combined in one subpart. This final rule establishes emission standards in the form of management practices for each chemical manufacturing process unit as well as emission limits for certain subcategories of process vents and storage tanks. The rule also establishes management practices and other emission reduction requirements for subcategories of wastewater systems and heat exchange systems.

DATES: This final rule is effective on October 29, 2009.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2008–0334. All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.,* confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the EPA Docket Center, Public Reading Room, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Mr. Randy McDonald, Coatings and Chemicals Group (E143–01), Sector Policies and Programs Division, Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number: (919) 541–5402; fax number: (919) 541–0246; e-mail address: *mcdonald.randy@epa.gov.*

SUPPLEMENTARY INFORMATION: *Outline.* The information in this preamble is organized as follows:

I. General Information

A. Does this action apply to me?

The regulated categories and entities potentially affected by this action are shown in the table below. This final rule applies to each chemical manufacturing process unit (CMPU) that uses as feedstocks,[1] generates as byproducts, or produces as products any of the following 15 hazardous air pollutants (HAP): 1,3-butadiene; 1,3-dichloropropene; acetaldehyde; chloroform; ethylene dichloride; methylene chloride; hexachlorobenzene; hydrazine; quinoline (*i.e.,* ''chemical manufacturing organic urban HAP'' or ''Table 1[2] organic HAP''); or compounds of arsenic, cadmium, chromium, lead, manganese, or nickel (*i.e.,* ''chemical manufacturing metal urban HAP'' or ''Table 1 metal HAP''). Consistent with the proposed rule, the standards do not apply to hydrogen halide and halogen HAP (*i.e.,* hydrogen chloride, chlorine, and hydrogen fluoride) at affected sources, except when these HAP are generated in combustion-based emission control devices that are used to meet the proposed standards for organic HAP on Table 1.[3] The affected source for this rule is the facility-wide collection of CMPUs that use, generate, or produce one or more of the Table 1 HAP and the wastewater systems and heat exchange systems associated with the CMPUs that use Table 1 HAP. A CMPU includes all process equipment and activities involved in the production of a material described by North American Industry Classification System (NAICS) Code 325.[4] If a CMPU uses, generates, or

[1] Feedstocks are reactants, solvents, or any other additives to the process.

[2] ''Table 1'' refers to Table 1 in the final rule.

[3] Collectively, the Table 1 organic and metal HAP are referred to as the ''chemical manufacturing urban HAP'' or ''Table 1 HAP.''

[4] The CMPU is defined by a facility's production of materials described by NAICS code 325. A facility producing such a material (or family of materials) may use more than one train or series of equipment to make it. All equipment (*i.e.,* unit operation) used to produce a specific product (as well as all the vents and activities associated with making this product) are considered to be part of a single CMPU for purposes of this rule. For example, facility X makes a pharmaceutical product that requires the use of methylene chloride as a solvent. The product is produced in any of three different size reactors, depending on the quantity needed or equipment availability. All of the reactors; other process equipment (*e.g.,* for

produces one of the chemical manufacturing organic urban HAP listed above, then the standards apply to all listed Clean Air Act (CAA) section 112(b) organic HAP emitted from that CMPU. Similarly, if a CMPU uses, generates, or produces one of the chemical manufacturing metal urban HAP listed above, then the standards apply to all listed CAA section 112(b) metal HAP emitted from that CMPU.

The regulated categories and entities potentially affected by this action include:

Industry category	NAICS code[1]	Examples of regulated entities
Chemical Manufacturing	325	Chemical manufacturing area sources that use as feedstock, generate as byproduct, or produce as product, any of the HAP subject to this subpart except for: (1) Processes classified in NAICS Code 325222, 325314, or 325413; (2) processes subject to standards for other listed area source categories[2] in NAICS 325; (3) certain fabricating operations; (4) manufacture of photographic film, paper, and plate where material is coated or contains chemicals (but the manufacture of the photographic chemicals is regulated); and (5) manufacture of radioactive elements or isotopes, radium chloride, radium luminous compounds, strontium, and uranium.

[1] North American Industry Classification System.

[2] The source categories in NAICS 325 for which other area source standards apply are: Acrylic Fibers/Modacrylic Fibers Production, Chemical Preparation, Carbon Black, Chemical Manufacturing: Chromium Compounds, Polyvinyl Chloride and Copolymers Production, Paint and Allied Coatings, and Mercury Cell Chlor-Alkali Manufacturing.

Area sources in NAICS 325 not specifically identified in the chart above may also be affected by this action. To determine whether your chemical manufacturing area source is regulated by this action, you should examine the applicability criteria in 40 CFR 63.11494 of subpart VVVVVV (National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources). For additional information about applicability provisions, see sections III.A, IV.A, and V.A of this preamble. If you have any questions regarding the applicability of this action to a particular entity, consult either the air permit authority for the entity or your EPA regional representative as listed in 40 CFR 63.13 of subpart A (General Provisions).

B. Where can I get a copy of this document?

In addition to being available in the docket, an electronic copy of this final action will also be available on the Worldwide Web (WWW) through the Technology Transfer Network (TTN). Following signature, a copy of this final action will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/oarpg/*. The TTN provides information and technology exchange in various areas of air pollution control.

C. Judicial Review

Under section 307(b)(1) of the CAA, judicial review of this final rule is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by December 28, 2009. Under section 307(b)(2) of the CAA, the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Section 307(d)(7)(B) of the CAA further provides that ''[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review.'' This section also provides a mechanism for EPA to convene a proceeding for reconsideration, ''[i]f the person raising an objection can demonstrate to EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of this rule.'' Any person seeking to make such a demonstration to us should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to both the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

II. Background Information for This Final Rule

Section 112(d) of the CAA requires EPA to establish national emission standards for hazardous air pollutants (NESHAP) for both major and area sources of HAP that are listed for regulation under CAA section 112(c). A major source is any stationary source that emits or has the potential to emit 10 tons per year (tpy) or more of any single HAP or 25 tpy or more of any combination of HAP. An area source is a stationary source that is not a major source.

Section 112(k)(3)(B) of the CAA calls for EPA to identify at least 30 HAP which, as the result of emissions from area sources, pose the greatest threat to public health in the largest number of urban areas. EPA implemented this provision in 1999 in the Integrated Urban Air Toxics Strategy, (64 FR 38715, July 19, 1999) (Strategy). Specifically, in the Strategy, EPA identified 30 HAP that pose the greatest potential health threat in urban areas, and these HAP are referred to as the ''30 urban HAP.'' Section 112(c)(3) of the CAA requires EPA to list sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the emissions of the 30 urban HAP are subject to regulation. We selected the nine chemical manufacturing area source categories based on these requirements. A primary goal of the Strategy is to achieve a 75 percent reduction in cancer incidence attributable to HAP emitted from stationary sources.

Under CAA section 112(d)(5), EPA may elect to promulgate standards or requirements for area sources ''which provide for the use of generally available control technologies or management practices (GACT) by such sources to reduce emissions of hazardous air pollutants.'' Additional information on GACT is found in the Senate report on the legislation (Senate Report Number 101–228, December 20, 1989), which describes GACT as:

separation, drying, *etc.*); connecting piping and related pumps, valves, *etc.;* storage tanks; transfer operations; surge control vessels; bottoms receivers; and other activities (*e.g.,* routine cleaning) are part of a single CMPU.

* * * methods, practices, and techniques which are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain the emissions control systems.

Consistent with the legislative history, we can consider costs and economic impacts in determining GACT, which is particularly important when developing regulations for source categories that have many small businesses.

Determining what constitutes GACT involves considering the control technologies and management practices that are generally available to the area sources in the source category. We also consider the standards applicable to major sources in the same industrial sector to determine if the control technologies and management practices are transferable and generally available to area sources. In appropriate circumstances, we may also consider technologies and practices at area and major sources in similar categories to determine whether such technologies and practices could be considered generally available for the area source category at issue. Finally, as we have already noted, in determining GACT for a particular area source category, we consider the costs and economic impacts of available control technologies and management practices on that category.

We are issuing these national emission standards in response to a court-ordered deadline that requires EPA to issue standards for nine source categories listed pursuant to CAA section 112(c)(3) and (k)(3)(B) by October 16, 2009 (*Sierra Club* v. *Johnson,* no. 01–1537, D.D.C., March 2006).

III. Summary of Major Changes Since Proposal

A. Applicability

In the proposed rule, we proposed that the affected source include the entire facility if the facility emitted any of the chemical manufacturing urban HAP. Specifically, under the proposal, all process vents, storage tanks, transfer operations, wastewater systems, and cooling towers at the facility would be subject to the standards if any emissions source at the facility emitted one of the chemical manufacturing urban HAP. In response to comments, we narrowed the scope of applicability of this final rule, and we made several changes to clarify the applicability provisions. The most significant change is that only CMPU that emit one or more of the 15 chemical manufacturing urban HAP and the wastewater systems and heat exchange systems associated with those CMPUs are subject to the rule. A CMPU includes all process equipment and activities involved in the production of a material (or family of materials) described by NAICS code 325. Additionally, a CMPU includes each surge control vessel, bottoms receiver, pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, storage tank, transfer rack, and instrumentation system associated with the production of a subject NAICS 325 material. The final rule provides that a CMPU consists of one or more processing steps used in the production of the subject NAICS 325 material.

The final rule further specifies that each CMPU within an affected source that emits one of the chemical manufacturing urban HAP is subject only to requirements that apply to the same type of HAP that triggered applicability, not requirements for all types of HAP. For example, a CMPU that uses only chemical manufacturing organic urban HAP is required to control all CAA section 112(b) organic HAP. Similarly, a CMPU that uses only chemical manufacturing metal urban HAP is required to control all CAA section 112(b) metal HAP. For the purposes of this provision, hydrazine is considered to be an organic HAP.

In response to comments, we are clarifying that the rule does not extend to structural items (*e.g.,* piping) and items that exist as ''articles'' as defined in 40 CFR 372.3, and are used under normal conditions, because these items do not emit any HAP, including the chemical manufacturing urban HAP.[5]

B. Emission Standards

1. Management Practices

EPA proposed management practices for a number of emission points, including for process vents (batch, continuous, and metal HAP); storage tanks; transfer operations; and equipment leaks. The proposed management practices for process vents included covering all process tanks and mixing vessels during operation; maintaining covers in the closed position on all openings and access points in other process vessels; conducting quarterly inspections to check for leaks from the process vessels and determining the integrity of the process vessels and ensuring covers are being used; and repairing leaks within 15 days. EPA proposed these management practice requirements for all affected sources. For storage tanks, EPA proposed GACT as management practices consisting of quarterly inspections for leaks, minimizing and promptly cleaning up spills, and ensuring all openings and access points are closed for all storage tanks. For transfer operations, EPA proposed to minimize emissions using management practices, such as minimizing spills, cleaning up spills promptly, covering open containers when not in use, and minimizing discharges to open waste collection systems.

In the final rule, the separate proposed management practices for process vents, storage tanks, transfer operations, and equipment leaks were consolidated and simplified into one comprehensive set of management practices that are applicable to each CMPU. The comprehensive management practices in the final rule include requirements to equip each process vessel with a cover or lid that must be in place at all times when the vessel contains HAP, except for material addition and sampling. The management practices also include sensory-based inspections of process vessels and equipment in each CMPU. Changes to management practices specific to small heat exchange systems are described in section III.B.2.f of this preamble.

2. Emission Limits and Emission Control Requirements

a. Continuous Process Vents and Batch Process Vents

For continuous process vents with a total resource effectiveness (TRE) index of 1 or less, EPA proposed management practices and 95 percent emission reduction of organic HAP emissions. After consideration of the public comments, we are finalizing management practices and the 95 percent emission reduction requirement for organic HAP emissions from continuous process vents. Based on public comments, the final rule includes a definition of continuous process vent that is based on the process vent definition in 40 CFR part 63, subpart F of the Hazardous Organics NESHAP (HON). In addition, the final rule includes a mass emission threshold of 0.1 pound per hour (lb/hr) or less, below which the TRE index calculation is not required.

For facilities with batch process vents, EPA proposed management practices and a 90 percent organic HAP emission

[5] ''Article'' means a manufactured item: ''(1) Which is formed to a specific shape or design during manufacture; (2) which has end use functions dependent in whole or in part upon its shape or design during end use; and (3) which does not release a toxic chemical under normal conditions of processing or use of that item at the facility or establishment.'' 40 CFR 372.3.

reduction if the collective uncontrolled total organic HAP emissions from the sum of all batch process vents within the affected facility was 19,000 pounds per year (lbs/yr) or greater. The final rule requires management practices and 85 percent control (90 percent for new sources) if the total organic uncontrolled HAP emissions from batch process vents within a CMPU are 10,000 lbs/yr or greater. We established the control efficiency of 85 percent as GACT for existing area sources based on additional information provided by commenters. Under the final rule, emissions from any batch process vents may be estimated based on process knowledge, engineering assessment, and/or test data. The proposed requirement to use the calculation methodology in 40 CFR 63.1257(d)(2)(i) for certain types of emission episodes is not required, but it is authorized under the final rule. The final rule also includes an expanded definition of batch process vent that includes examples of batch process vents and lists types of equipment and gas streams that are not batch process vents.

b. Metal HAP Process Vents

EPA proposed management practices and 95 percent metal HAP emission reduction if the collective uncontrolled total metal HAP emissions from the sum of all metal HAP process vents was greater than 400 lbs/yr on a facility-wide basis. In addition to the 400 lbs/yr level, EPA co-proposed a metal HAP threshold level of 100 lbs/yr on a facility-wide basis, and asked for public comment on the appropriate threshold to use for purposes of subcategorizing metal HAP process vents based on the factors discussed in the proposed rule. For metal HAP process vents with total uncontrolled metal HAP emissions less than the threshold, management practices would be required to reduce HAP emissions. After considering public comments, the final rule requires management practices and 95 percent reduction in metal HAP emissions from each CMPU with uncontrolled metal HAP process vent emissions of 400 lbs/yr or greater.

c. Storage Tanks

The proposed rule cross-referenced the thresholds for control, as well as the standards and compliance procedures in 40 CFR part 60, subpart Kb. The final rule replaces the references to subpart Kb with references to the standards and compliance procedures in 40 CFR part 63, subparts SS and WW and by directly specifying the applicable thresholds for control in Table 5 to the final rule. The capacity and maximum true vapor pressure thresholds for control in the final rule are the same as at proposal, but the final rule specifies that the maximum true vapor pressure (MTVP) threshold is to be based on the organic HAP content of the stored liquid, not the volatile organic liquid (VOL) content as specified in subpart Kb. As in other NESHAP, we intended to require MTVP determinations based on the organic HAP content in the stored liquid, but we inadvertently neglected to override the reference to VOL in the MTVP definition in subpart Kb. The standards and compliance procedures are essentially the same as at proposal, but the final rule references standards and compliance procedures in 40 CFR part 63 (Subparts SS and WW, and the General Provisions, Subpart A). The final rule also includes a vapor balancing compliance alternative that provides at least equivalent levels of HAP emission reductions as the GACT requirements that we are finalizing. Based on public comments, we have determined that GACT for storage tanks that vent to a control device includes alternative procedures during periods of planned routine maintenance of the control device. Therefore, the final rule specifies that no material may be added to the storage tank during periods of planned routine maintenance, and periods of planned routine maintenance may not exceed 240 hours per year (hrs/yr).

Surge control vessels and bottoms receivers were included in the proposed definition of storage tank because we proposed that these types of vessels would be subject to the same standards as storage tanks. Surge control vessels and bottoms receivers remain subject to the storage tank standards in the final rule. However, based on public comments, we removed surge control vessels and bottoms receivers from the definition of storage tank, and instead explicitly specify in section 63.11496(h) of the final rule that the storage tank standards apply to surge control vessels and bottoms receivers that meet the applicability criteria for storage tanks set forth in Table 5 of the final rule. All storage tanks that store liquid containing organic HAP and are part of a CMPU subject to the final rule are subject to the management practice requirements. In addition, the definition of storage tank in the final rule is changed to make the definition consistent with definitions in other NESHAP such as the Miscellaneous Organic NESHAP (MON), HON, and Pharmaceutical maximum achievable control technology (MACT) standards by excluding wastewater storage tanks and tanks storing liquid containing organic HAP only as impurities.

d. Wastewater

EPA proposed to subcategorize wastewater streams based on the size of the wastewater stream and determined that large wastewater streams were those with partially soluble HAP (PSHAP) concentrations of 10,000 parts per million by weight (ppmw) or greater. For wastewater streams with PSHAP concentrations of less than 10,000 ppmw discharge, we proposed as GACT to send the wastewater stream to an onsite or offsite wastewater treatment process, and, for wastewater streams containing PSHAP concentrations of 10,000 ppmw or greater, we proposed as GACT use of gravity separation or other techniques to separate organic and water layers and to send the water layer to a wastewater treatment process. We proposed that the organic layer must be recovered and reused in a process, used as a fuel, or disposed of as hazardous waste.

Based on comments, we are revising our subcategorization determination to account for wastewater streams with PSHAP concentrations of 10,000 ppmw or greater that do not have a separate organic layer. The separation techniques that we established as GACT for larger wastewater streams will not work for wastewater streams that contain only a water phase. For this reason, we are also now considering the type of stream in our subcategorization determination to account for the wastewater streams that do not separate at PSHAP concentrations of 10,000 ppmw. In the final rule, the larger wastewater stream subcategory is defined as those wastewater streams with PSHAP concentrations of 10,000 ppmw or greater that also have a separate organic layer.

As stated above, the proposed GACT requirement for a wastewater stream that contains PSHAP concentrations of 10,000 ppmw or greater was to separate the stream into the organic and aqueous phase and treat them according to the requirements in the proposed standards. The final rule retains these provisions for the newly defined large wastewater systems subcategory and also provides an alternative compliance option to hard-pipe the total stream to a combustion unit or other onsite hazardous waste treatment facility (or to a tank from which it is collected and shipped offsite). This alternative provides at least equivalent levels of HAP emission reductions as the emission control requirements contained in this proposed rule. We are also finalizing the proposed requirement

for single phase wastewater streams and the aqueous phase for two phase streams that requires the wastewater streams be sent to a wastewater treatment process.

Based on public comments, we also revised the definition of wastewater stream to be consistent with MON and HON wastewater stream definitions.

e. Transfer Operations

EPA proposed that management practices to minimize evaporation losses and use of submerged loading were GACT for transfer operations. After considering public comments on the transfer operations requirements, we have replaced in some cases and revised in others the management practices for transfer operations and are promulgating a comprehensive management practice requirement (see discussion in section III.B.1 of this preamble), which includes inspection of transfer operations. In addition to the management practices, we have determined that GACT for most material transfers is the use of submerged loading or bottom loading. In response to public comments, we have added an alternative compliance option to route emissions to a fuel gas system or process in accordance with 40 CFR part 63, subpart SS. This alternative provides at least equivalent levels of HAP emission reductions as the GACT requirements that we are finalizing.

Based on public comments, we have also determined that submerged or bottom loading is neither general industry practice nor GACT for the transfer of reactive and resinous materials because sources do not currently employ submerged or bottom loading for these materials due to operational issues. Therefore, the final rule defines reactive and resinous materials and requires sources to include in the initial Notifications of Compliance Status a list of any materials that meet these definitions. Source must also keep records of the use of these materials and report in the semiannual compliance report the use of any additional resinous or reactive materials occurring during the reporting period. Reactive materials are defined in the final rule as energetics, organic peroxides, and other unstable chemicals such as chemicals that react violently with water and chemicals that vigorously polymerize, decompose, condense, or become self-reactive under conditions of pressure or temperature. Resinous materials are defined in the final rule as viscous, high-boiling point material resembling pitch or tar that sticks to or hardens in the fill pipe under normal transfer conditions.

f. Heat Exchange Systems

The proposed rule used the term ''cooling tower'' systems; however, we intended to regulate ''heat exchange'' systems as is consistent with the HON. We also intended to include ''once-through'' systems as part of the affected source. Therefore, the final rule uses the term ''heat exchange system'' in place of the proposed term ''cooling tower system.'' The final rule also includes a definition of ''heat exchange system'' that is consistent with the definition in 40 CFR 63.101 of the HON and clearly specifies that once-through systems are included.

After considering public comments, we have retained the proposed inspection and leak repair requirements for small heat exchange systems and monitoring and leak repair requirements for large heat exchange systems as the GACT requirements in the final rule. The proposed rule also required compliance with 40 CFR 63.104(a), and several commenters did not understand what that requirement meant. To address the confusion caused by the proposed rule, we clarified in the final rule that heat exchange systems meeting the conditions set forth in 40 CFR 63.104(a) are not subject to the inspection or monitoring requirements contained in the final rule, as that is what we intended when we proposed the rule.

As a compliance alternative to the requirement to perform repairs after an inspection of a small heat exchange system reveals indications of a potential leak into cooling water, the final rule also allows the owner or operator to demonstrate that the HAP concentration in the cooling water does not constitute a leak, as defined in 40 CFR 63.104(b)(6). For both large and small heat exchange systems, the final rule also allows compliance with the HON heat exchange system requirements in 40 CFR 63.104(b) or (c). For equipment that meets Current Good Manufacturing Practice (CGMP) requirements in 21 CFR part 211, the physical integrity of the reactor may be used as the surrogate indicator of heat exchange system leaks under 40 CFR 63.104(c). These compliance alternatives provide at least equivalent levels of HAP emission reductions as the emission control requirements contained in this final rule.

g. Equipment Leaks

As discussed in section III.B.1 of this preamble, the proposed equipment leak requirements have been incorporated as part of the management practice requirements that apply to each CMPU subject to the final rule. However, following review of public comments, we added an alternative for equipment leaks in the final rule that allows an owner or operator to use Method 21 in lieu of sensory-based leak detection. Method 21 is at least equivalent to the leak inspection requirements we are finalizing in this rule.

h. Overlapping Rules

The final rule specifies that when equipment at an affected source is subject to both this rule and the provisions of another rule, compliance with the requirements of the other rule constitutes compliance with this final rule for the subject equipment if the owner or operator determines that the other emission control, monitoring, recordkeeping, and/or reporting requirements provide at least equivalent levels of HAP emission reductions and compliance assurance as the requirements in the final rule. For example, if the control requirements in the other rule are at least as stringent as those provided in this rule, but the monitoring, recordkeeping, or reporting requirement in the other rule are not as stringent or comprehensive, the source may comply with the control requirements from the other rule, but must comply with the more stringent monitoring, recordkeeping, and reporting requirements in this rule. The final rule requires a source that is subject to overlapping standards to identify in its Notification of Compliance Status all of the alternative requirements with which the source will be complying and provide an explanation of why the selected requirement is more stringent than this rule. The final rule also states that sources are responsible for making accurate determinations concerning the more stringent standard and noncompliance with this rule is not excused if it is later determined that the source was in error in its initial notification of compliance and, as a result, is violating this rule. Compliance with this rule is the responsibility of the affected source regardless of any notification of compliance.

C. Initial Compliance

For some control devices, the proposed rule allowed initial compliance to be demonstrated using either design evaluations or performance tests, but performance tests were required for certain other control devices. In response to comments, the final rule allows design evaluations as an alternative to performance tests for all control devices.

To clarify the initial compliance requirements for batch process vents and continuous process vents, some of the language from 40 CFR part 63, subpart FFFF that was referenced in Table 2 to the proposed rule has been written directly into 40 CFR 63.11496(g) of the final rule.

D. Monitoring, Recordkeeping, and Reporting

The proposed rule referenced parts of the General Provisions as well as subparts SS, FFFF, and NNNNNN in 40 CFR part 63 for all control device monitoring requirements. With two exceptions, these monitoring requirements are retained in the final rule. One change in the final rule is that pH may be measured once per day rather than continuously for any halogen scrubber. The second change from proposal is that Table 9 to the final rule specifies that 40 CFR 63.8(a)(2) does not apply to affected sources under this rule. We made this change so that EPA Performance Specification 17 (PS–17) and EPA Quality Assurance Procedure 4, when finalized, will not apply to affected sources under this rule.

In addition to monitoring requirements, the proposed rule referenced recordkeeping requirements in several other rules. To clarify these requirements, 40 CFR 63.11501(c) of the final rule lists all of the recordkeeping requirements and references the specific section in each rule that requires it. The notification and reporting requirements have also been revised in the final rule. For example, additional notification requirements have been incorporated into the final rule for certain transfer operations and overlapping rules as discussed above.

E. Startup, Shutdown, and Malfunction (SSM)

During the comment period of the proposed rule, the United States Court of Appeals for the District of Columbia Circuit vacated two provisions in EPA's CAA Section 112 regulations governing the emissions of HAP during periods of startup, shutdown, and malfunction (SSM). *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008). Specifically, the Court vacated 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), that are part of a regulation, commonly referred to as the ''General Provisions Rule,'' that EPA promulgated under section 112 of the CAA. When incorporated into CAA Section 112(d) regulations for specific source categories, these two provisions exempt sources from the requirement to comply with the otherwise applicable CAA section 112(d) emission standard during periods of SSM.

Industry intervenors appealed the December 2008 *Sierra Club* decision by filing petitions for rehearing. On July 30, 2009, the District of Columbia Circuit denied these petitions. On August 5, 2009, EPA filed a motion seeking a 60-day stay of the mandate. On August 6, 2009, industry intervenors filed a motion to stay the mandate pending their appeal of the decision to the United States Supreme Court. The Court recently denied industry intervenors' motion to stay the mandate and granted EPA's motion, directing the Clerk of the Court not to issue the mandate prior to October 6, 2009. Until the District of Columbia Circuit issues the mandate effectuating the vacatur, 40 CFR 63.6(f)(1) and (h)(1) remain in effect.

The proposed rule included a reference to 40 CFR 63.6(f)(1) and (h)(1). In light of *Sierra Club* v. *EPA,* we revised Table 9, which addresses the applicability of the Part 63 General Provisions to the source categories at issue in this rule, to state that 40 CFR 63.6(f)(1) and (h)(1) do not apply. As such, the final emission standards summarized in section IV of this preamble apply at all times. As noted in section IV of this preamble, we are setting a separate emission standard for the nine source categories at issue here that applies to continuous process vents during periods of startup and shutdown, and that standard is 85 percent control, instead of the 95 percent control required at all other times. We are establishing a separate emission standard for these periods because they are characterized by activities such as the filling, emptying, and inerting of vessels, which generally result in significantly different emissions than normal operations. As for batch processes, startup and shutdown are part of their normal operations and, therefore, are already addressed by the standards. In addition, storage tanks, heat exchange systems, and transfer operations do not include startup and shutdown activities.

We have also added language making clear that, to the extent this rule incorporates by reference emission standards from other CAA section 112(d) rules, and those rules contain an exemption from the applicable emission standard during periods of SSM, that exemption does not apply for purposes of this rule.

F. Title V

Pursuant to section 502(a) of the CAA, the Administrator may ''in the Administrator's discretion and consistent with the applicable provisions of [the Act], promulgate regulations to exempt one or more [non-major] source categories (in whole or in part) from the requirements of [title V] if the Administrator finds that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome on such categories. * * *'' We proposed to exempt the sources in the chemical manufacturing area source categories subject to this rule from compliance with the requirements of title V. Since proposal, we have reconsidered the proposed exemption and determined that it is not appropriate to finalize the exemption for certain synthetic area sources. Specifically, in proposing the exemption for these categories, we did not consider the large number of synthetic area sources that reduced their HAP emissions to below the major source thresholds by installing air pollution control devices. The oversight occurred because most sources subject to the other area source rules that exempted facilities from title V permitting have very low emissions before control (and most emit metal HAP). Conversely, for the chemical manufacturing area source category, we estimate 75 facilities are synthetic area sources for HAP and at least 10 percent of these facilities have uncontrolled HAP emissions over 100 tpy. Therefore, in the final rule, title V permits are required for area sources in the nine chemical manufacturing source categories that are synthetic area sources by virtue of the fact that they have reduced their HAP emissions to below the major source thresholds by installing air pollution control devices. We are, however, finalizing the exemption from the requirements of title V for those synthetic area sources that limited their HAP emissions to below the major source thresholds solely by complying with operational limits (*e.g.,* limiting the hours the facility can operate) and for natural area sources, which are sources that neither installed controls nor took operational limits to become an area source. The analysis in the proposed rule finding that compliance with title V is unnecessarily burdensome on these source categories remains accurate for the sources we are exempting.

Based on our additional review of the source categories since proposal, we conclude that exemption for the synthetic area sources that installed controls is not appropriate given the facts associated with these sources as set forth below, and we do not believe title V is unnecessarily burdensome on these area sources. Unlike many other area

source categories that we have exempted from title V while implementing the requirements of CAA sections 112(c)(3) and 112(k)(3)(B), the nine chemical manufacturing area source categories include a large number of synthetic area sources that installed air pollution controls to become area sources. We evaluated other area source categories and determined that most sources subject to the other area source rules that exempted facilities from title V permitting have very low emissions before control. For the chemical manufacturing area source categories, we estimate that at least seven of the 47 facilities that are synthetic area sources for HAP by virtue of installing controls would have uncontrolled HAP emissions over 100 tons per year. Synthetic area sources that installed controls represent more than 10 percent of the total number of sources that will be subject to the final rule. In fact, these sources are much more like the major sources of HAP subject to the HON and the MON. In addition, many of these sources are located in cities, and often in close proximity to residential and commercial centers where large numbers of people live and work. The record also indicates that many of these synthetic area sources have significantly higher emissions potential when uncontrolled than the other sources in the nine chemical manufacturing area source categories. For example, we have identified seven facilities that have uncontrolled emissions that exceed 100 tpy.

For these reasons, we believe that the additional public participation and compliance benefits of additional informational, monitoring, reporting, certification, and enforcement requirements that exist in title V should be the same for a major source that installed a control device after 1990 to become an area source as for a source that is major and installed a control device to comply with an applicable major source NESHAP, and thereby reduced emissions below major source levels (10 tpy of a single HAP or 25 tpy of total HAP). Many of the synthetic area sources that became area sources by virtue of installing add-on controls are large facilities with comprehensive compliance programs in place because their uncontrolled emissions would far exceed the major source threshold. We maintain that requiring additional public involvement and compliance assurance requirements through title V is important to ensure that these sources are maintaining their emissions at the area source level and, while there is some burden on the affected facilities, we think that the burden is not significant because these facilities are generally larger and more sophisticated than the natural area sources and sources that took operational limits to become area sources.

For these reasons above, we have decided not to finalize the title V exemption for these facilities. The final rule requires title V permits for major sources of HAP emissions that installed controls after 1990 to become area sources of HAP emissions. We estimate that approximately 150 sources that will be subject to this rule are required to have title V permits because of criteria pollutants and the final rule will require an additional 47 affected area sources to obtain title V permits.

We are not requiring title V permits for sources that reduced their emissions to area source levels by taking operational restrictions, such as restricting hours of operation or production, or for natural area sources. We conclude that our analysis in the proposed rule that title V is unnecessarily burdensome for sources in the Chemical Manufacturing source categories remains accurate for the sources we are exempting.

IV. Summary of Final Rule

A. Applicability

The final NESHAP applies to each CMPU that is located at an area source of HAP emissions that uses as feedstocks, generates as byproducts, or produces as products any of the Table 1 HAP, where the Table 1 HAP are present in the feedstocks or are generated and present in the process fluid at concentrations greater than 0.1 percent for carcinogens, as defined by the Occupational Safety and Health Administration, and greater than 1.0 percent for noncarcinogens. A CMPU includes all process equipment, vents, and activities involved in the production of a material described by NAICS code 325, and it consists of one or more unit operations and all associated recovery devices. A CMPU also includes each surge control vessel, bottoms receiver, pump, compressor, agitator, pressure relief device or valve, sampling connection system, open-ended valve or line, valve, connector, storage tank, transfer rack, and instrumentation system associated with the production of NAICS code 325 materials. An affected source is the facility-wide collection of all CMPUs that use, generate, or produce one or more Table 1 HAP. An affected source also includes each heat exchange system and wastewater system that is associated with any CMPU that uses, generates, or produces one or more Table 1 HAP.

The nine chemical manufacturing area source categories include production of most of the materials classified under NAICS 325. The final rule specifies applicability based on CMPUs that are used to produce chemicals classified under NAICS 325, except for production of materials in NAICS 325 that are subject to other area source standards, as specified in the rule, see 40 CFR 63.11494(c)(1), and specific operations that are not considered to be chemical manufacturing, such as photographic paper (NAICS 325992), as described in 40 CFR 63.11494(c)(2) of the final rule.

To be subject to the rule, the CMPU must use as feedstocks, generate as byproducts, or produce as products any of the 15 chemical manufacturing urban HAP. If the CMPU is subject to the final rule, the standards apply to all CAA section 112(b) organic HAP emitted from the CMPU and all CAA section 112(b) metal HAP emitted from the CMPU, depending on the type of HAP that triggers applicability under the rule. Specifically, a CMPU using only Table 1 organic HAP is required to control all CAA section 112(b) organic HAP from the CMPU, a CMPU using only Table 1 metal HAP is required to control all CAA section 112(b) metal HAP from the CMPU, and a CMPU using both metal and organic Table 1 HAP is required to control all CAA section 112(b) metal and organic HAP

B. Compliance Dates

All existing area source facilities with operations subject to this final rule must comply with the final rule requirements for their existing operations no later than October 29, 2012. A new area source must comply with the final rule requirements by October 29, 2009 or upon startup, whichever is later. For the purposes of determining compliance with the rule, a new source is a source that commenced construction or reconstruction after October 6, 2008.

C. Standards

For each CMPU that is part of an affected source, the final rule requires you to implement management practices that apply to all process equipment and other equipment (*e.g.,* pumps, valves, and connectors) in the CMPU. In addition to the management practices, the final rule requires compliance with numerical emission limits and additional emission control requirements for certain process vents, storage tanks, surge control vessels, bottoms receivers, wastewater systems,

and heat exchange systems that meet specified conditions. Management practice requirements and all numerical emission limits and other emission control requirements, except the emission limit for batch process vents, are the same at existing and new sources.

1. Management Practices

Owners and operators of CMPUs subject to this rule are required to comply with the following management practice requirements. All process vessels must be equipped with a cover or lid that is in place at all times when the vessel contains HAP, except for material addition and sampling. Transfer of liquids containing chemical manufacturing organic urban HAP to tank trucks or railcars must be conducted using submerged loading or bottom loading, except for reactive or resinous materials. You must identify each reactive or resinous material in your Notification of Compliance Status or the semiannual compliance report that covers the period when the material is first transferred. You must also conduct inspections of equipment within the CMPU quarterly to demonstrate compliance with the above management practices and confirm that all CMPU are sound and free of leaks. Any leaks must be repaired within 15 days of finding the leak or you must document the reason for the delay. In addition, you must keep records of the inspection dates, inspection results, and the dates of equipment repairs.

Owners or operators of small heat exchange systems that are part of a CMPU subject to this subpart with a cooling water flow rate of less than 8,000 gallons per minute (gal/min) and that do not meet the criteria in 40 CFR 63.104(a) are required to develop a heat exchange system inspection plan that describes the inspections that will be performed to identify hydrocarbons in the cooling water. The inspections must be conducted quarterly and may include a number of sensory inspection options for determining indications of a leak, such as visible floating hydrocarbon, hydrocarbon odor, discolored water, or chemical addition rates. You must either perform repairs to eliminate indications of a leak or take samples and determine there is no leak (as defined in 40 CFR 63.104(b)(6)). Repairs must be completed within 45 days after the inspection during which you observe indications of a leak, or you must document the reason for the delay. In addition, you must keep records of the heat exchange system inspection dates, inspection results, and the dates of leak repairs.

As an alternative to the management practice requirements for small heat exchange systems, the final rule allows compliance with the requirements for large heat exchange systems with flow rates of 8,000 gal/min or greater (*i.e.,* the HON heat exchange system requirements in 40 CFR 63.104(b) or (c)).

2. Standards for Batch Process Vents

Owners and operators of a CMPU with collective uncontrolled organic HAP emissions greater than or equal to 10,000 lbs/yr from all batch process vents associated with an affected CMPU must meet emission limits for the organic HAP emissions. Examples of batch process vents include, but are not limited to, vents on reactors, filters, centrifuges, condensers used for product recovery, and process tanks. These vents include intermittent emissions from continuous operations as well as emissions from batch operations.

For an existing source, one control option is to reduce the collective uncontrolled organic HAP emissions from the CMPU by at least 85 percent by venting emissions from a sufficient number of vents through one or more closed vent system to any combination of control devices (excluding a flare). Alternatively, you may route uncontrolled organic HAP emissions from one or more batch process vents within the CMPU through one or more closed vent systems and meet an outlet concentration limit of 20 parts per million by volume (ppmv) (as total organic carbon or total organic HAP) or through a closed vent system to a flare, and comply with the 85 percent reduction for the remaining vents in the CMPU. For a new source, the requirements are the same as for an existing source, except the required reduction is 90 percent instead of 85 percent.

When halogenated organic HAP compounds from batch process vents are controlled by combustion, you must also reduce the hydrogen halide and halogen HAP generated in the combustion device by at least 95 percent, to no more than 0.45 kilograms per hour (kg/hr), or to no more than 20 ppmv. As an alternative to post-combustion halogen control, you may instead reduce the halogen atom mass emissions prior to the combustion device to no more than 0.45 kg/hr or 20 ppmv.

3. Standards for Continuous Process Vents

We are finalizing the proposed GACT requirements for organic HAP emissions from each continuous process vent with a TRE index value less than or equal to 1.0. Specifically, organic HAP emissions from each continuous process vent with a TRE index value less than or equal to 1.0 must meet any one of several emission control alternatives. One option is to reduce the organic HAP emissions by at least 95 percent by routing through a closed vent system to one or more control devices. Alternatively, you may route the emissions to a flare, or you may meet the concentration option described above for batch process vents. Because a continuous process vent is determined after the last recovery device, another option is to use a recovery device from which the vent stream is determined to have a TRE greater than 1.0. In addition, we are establishing a requirement to reduce the organic HAP emissions from continuous process vents with a TRE less than 1.0 by at least 85 percent during periods of startup and shutdown. Halogenated organic emissions from continuous process vents are subject to the same requirements described above for halogenated organic HAP emissions from batch process vents.

4. Standards for Metal HAP Process Vents

Owners and operators are required to reduce metal HAP emissions by at least 95 percent from each CMPU with uncontrolled metal HAP emissions of 400 lbs/yr or more. The metal HAP process vent emissions must be routed through a closed-vent system to a control device.

5. Standards for Storage Tanks, Surge Control Vessels, and Bottoms Receivers

We are finalizing the proposed emission controls for emissions from storage tanks, surge control vessels, and bottoms receivers that have (1) a capacity of 40,000 gallons or greater with vapor pressure of total organic HAP of 5.2 kilopascals (kPa) or greater and less than 76.6 kPa or (2) a capacity of 20,000 gallons or greater and less than 40,000 gallons with vapor pressure of total organic HAP of 27.6 kPa or greater and less than 76.6 kPa. Control options in the final rule include: (1) Use of an internal or external floating roof; (2) venting through a closed vent system to a control device that reduces organic HAP emissions by at least 95 percent; (3) vapor balancing to the tank truck or railcar from which the tank is filled; (4) routing to a flare; or (5) routing to a fuel gas system or process. Storage tanks, surge control vessels, and bottoms receivers with capacity of 20,000 gallons or greater with vapor pressure of total organic HAP of 76.6 kPa or greater must be controlled using any of the above

options except a floating roof. Storage tanks, surge control vessels, or bottoms receivers with a vent stream that contains halogenated compounds and that is controlled by combustion must also meet the same requirements described above for halogenated batch process vents.

6. Standards for Wastewater Systems

All wastewater discarded from a CMPU subject to the rule must be treated. In addition, each process wastewater stream and each maintenance wastewater stream in which the total PSHAP concentration is 10,000 ppmw or greater, and which contains both an organic and an aqueous phase, must be decanted or separated by other techniques. Alternatively, wastewater streams that meet these conditions may be hard piped to onsite treatment as hazardous waste or hard piped to a collection tank or other vessel and shipped offsite for any of the same types of treatment. If the wastewater is separated into organic and aqueous layers, the organic material must be recycled to a process, used as fuel, or disposed of as hazardous waste. The separated aqueous phase, like other process wastewater and maintenance wastewater that does not separate into an organic and an aqueous phase, must receive some type of treatment, either onsite or offsite, as described above.

7. Standards for Heat Exchange Systems

Owners or operators of heat exchange systems with cooling water flow rate of 8,000 gal/min or greater must develop and operate in accordance with a monitoring plan that documents the procedures to be used to detect leaks of process fluids into cooling water. The plan must require monitoring of one or more surrogate indicators or monitoring of one or more process parameters or other conditions that indicate a leak. You must conduct the monitoring at least quarterly. Leaks must be repaired within 45 calendar days after detection unless specified conditions for delay of repair are met. You must keep records of leaks detected by methods described in your monitoring plan or by other methods, and you must keep records of the dates of repairs. A compliance alternative has been incorporated into the final rule that allows compliance with the HON heat exchange system requirements in 40 CFR 63.104(b). This alternative provides at least equivalent levels of HAP emission reductions as the standards that we are finalizing today.

D. Initial Compliance Requirements

To demonstrate initial compliance with the management practices in the final rule, owners and operators of affected new and existing sources must certify that they have implemented all required management practices by the compliance date. To demonstrate initial compliance with the emissions control requirements, by the compliance date, the source must install and have operational, any required add on control equipment and/or have implemented any design requirements necessary to comply with the applicable standard.

For batch process vents and metal HAP process vents, owners and operators must either calculate uncontrolled emissions or demonstrate that organic HAP usage is below 10,000 lb/yr or metal HAP usage is below 400 lb/yr. The final rule specifies that HAP emissions or usage may be determined based on process knowledge, engineering assessments, or test data. For continuous process vents with an organic HAP emission rate greater than 0.1 lb/hr, owners and operators must determine the TRE index value. For wastewater streams, owners and operators must determine if the PSHAP concentration exceeds 10,000 ppmw and contains separate aqueous and organic layers. All wastewater stream characterization determinations may be based on process knowledge, engineering assessments, or test data.

To demonstrate initial compliance with a percent reduction or outlet concentration emission limit in this final rule, owners and operators must conduct either a performance test or design evaluation. Limits for operating parameters that will be monitored to demonstrate ongoing compliance must be established during the performance test or design evaluation.

E. Continuous Compliance Requirements

Quarterly inspections are required to demonstrate compliance with the management practice requirements and the standards for large heat exchange systems. Storage tanks equipped with floating roofs are also subject to periodic inspections and, for external floating roofs, seal gap measurements. Control device operating parameters must be continuously monitored to demonstrate ongoing compliance with percent reduction or outlet concentration emission limits, and the continuous presence of a pilot flame must be verified in flares. Closed vent systems that convey emissions to a control device must be monitored using Method 21 or by audible, visual, or olfactory (AVO) techniques, depending on the construction material and the source of the emissions.

F. Notification, Recordkeeping, and Reporting Requirements

The owner or operator of a new or existing affected source is required to comply with certain requirements of the General Provisions to part 63 (40 CFR part 63, subpart A), which are identified in Table 9 of the final rule. Each facility is required to submit an Initial Notification and a Notification of Compliance Status according to the requirements in 40 CFR 63.9 of the General Provisions and 40 CFR 63.11501 of the final rule. Among other things, the owner or operator must submit a compliance report for each semiannual reporting period during which a deviation occurred, a leak was not repaired within the specified time period, or a process change occurred that affected a previous compliance determination or resulted in a new compliance determination, including changes in the method of compliance.

V. Summary of Comments and Responses

We received a total of 35 comments on the proposed rule from industry representatives, trade associations, State and Federal agencies, industry consultants, one environmental group, and the general public during the public comment period. In addition, two speakers provided testimony at a public hearing. Sections V.A through V.H of this preamble summarize the significant comments and explain our response. Other comments addressed minor clarifications to this rule or other issues that we did not consider to be significant; these comments and our responses to them are provided in the Response to Comments Document.

A. Applicability

Comment: Several commenters requested that EPA establish one or more *de minimis* applicability thresholds below which area sources that process or emit small amounts of urban HAP would be exempt from the rule. For example, some commenters requested a more comprehensive version of the proposed concentration thresholds of 0.1 and 1.0 percent urban HAP in feedstocks and products that would also apply to fuels, by-products, co-products, intermediates, HAP generated in the process, and/or catalysts. Other commenters requested a mass-based HAP usage or processing threshold (*e.g.,* 2 megagrams per year or 25,000 lbs/yr), actual or uncontrolled HAP emissions thresholds between 50

lbs/yr and 6.25 tpy, a threshold based on the quantity of HAP stored onsite (consistent with the criteria that are used to determine Superfund Amendments and Reauthorization Act 311/312 Tier 2 reporting thresholds), or a combination of thresholds.

Two commenters argued that EPA has legal authority to set *de minimis* applicability thresholds. One commenter noted that the courts have determined that EPA has the authority to establish *de minimis* thresholds where the application of the statutory requirements would be of trivial or no value environmentally (see *Alabama Power Co.* v. *Costle,* 636 F 2d 323.360–61; D.C. Cir. 1979). Another commenter noted that none of the provisions in the CAA related to EPA's obligation to regulate area sources expressly prohibits EPA from using thresholds to define the applicability of GACT standards, and they do not implicitly mandate that EPA must regulate every HAP emission from an area source.

Furthermore, one commenter noted that the proposed rule already includes *de minimis* thresholds (the 0.1 percent and 1.0 percent urban HAP concentrations in feedstocks and products), and previous rules have included *de minimis* thresholds.

Response: Regulation of the nine chemical manufacturing area source categories is necessary for the Agency to meet the requirements of CAA sections 112(c)(3) and 112(k)(3)(B) to regulate area source categories representing 90 percent of the emissions of the 30 urban HAP. We listed the nine chemical manufacturing area source categories because they emit urban HAP and these categories were necessary to satisfy our requirement to regulate area sources representing 90 percent of the area source emissions of 15 of the 30 urban HAP. Area sources are, by definition, smaller sources and we recognize that the nine area source categories at issue are comprised of a large number of relatively small facilities. But we note that, although area sources individually may emit relatively low amounts of HAP, collectively, the level of emissions is significant.

As discussed above and in the preamble to the proposed rule, the Agency determined that it was necessary to regulate these nine area source categories to fulfill the mandate of CAA sections 112(c)(3) and 112(k)(3)(B) to regulate area sources accounting for 90 percent of the emissions of the urban HAP. In listing the nine chemical manufacturing area source categories at issue, the Agency did not condition the listing of any of the categories based on a *de minimis* level of emissions of the 15 chemical manufacturing urban HAP, beyond the feedstock and product limitations discussed below and in the proposed rule. We are, therefore, appropriately issuing emission standards that regulate the emissions of the 15 chemical manufacturing urban HAP.

One commenter noted that EPA has included *de minimis* concentrations of urban HAP in feedstocks and products for purposes of determining applicability. In the proposed rule, feedstocks and products were defined as materials that contain the Table 1 HAP in concentrations greater than 0.1 percent for carcinogens or greater than 1.0 percent for noncarcinogens. As we have pointed out in several other area source rulemakings, the CAA section 112(k) inventory was primarily based on the 1990 Toxics Release Inventory (TRI), and that is the case for the chemical manufacturing area source categories as well. The reporting requirements for the TRI do not include *de minimis* concentrations of toxic chemicals in mixtures, as reflected in the above concentration levels; therefore, the CAA section 112(k) inventory would not have included emissions from operations involving chemicals below these concentration levels. See 40 CFR 372.38, Toxic Chemical Release Reporting: Community Right-To-Know (Reporting Requirements). Accordingly, the percentages noted above define the scope of the listed source category; they are not exemptions. We received no adverse comment on this issue, and we are finalizing the Table 1 HAP thresholds for feedstocks and products in this rule.

We have reviewed the listing decision for the nine chemical manufacturing area source categories and have not identified any information suggesting that small sources were not included in our listing decision. As such, we do not believe we can satisfy our requirement to regulate sources representing 90 percent of the emissions of the chemical manufacturing urban HAP unless we subject all sources that emit those HAP to regulation in this rule.

Comment: Many commenters stated that applicability of the affected source should be limited to individual emission points, individual process units, or the group of process units that involve urban HAP, not all chemical manufacturing operations, as was proposed. According to the commenters, this change is needed in order to alleviate burden and establish a cost-effective rule, particularly for specialty batch manufacturers that may operate processes that use an urban HAP infrequently. Commenters stated that EPA is not required to regulate HAP other than the 15 chemical manufacturing urban HAP needed to meet the 90 percent threshold. One commenter disagreed with EPA's basis for establishing the two batch process vent subcategories where EPA concluded that emissions > 19,000 lbs/yr represents solvent based, high production volume processes with concentrated emission streams. The commenter stated that this is only valid when applied to individual processes, but invalid when applied to entire sites. Another commenter stated that specialty chemical manufacturers would be disproportionately impacted by the proposed rule because of frequent variations and changes in product lines along with the unique aspects of batch processing. This commenter stated that specialty chemical producers will have to use thermal oxidizers with halogen controls, not condensers as EPA assumed, if all chemical manufacturing operations are covered. Commenters noted that costs to characterize wastewater streams that contain no urban HAP would be significant if all chemical manufacturing operations are covered. One commenter also expressed concern that a facility-wide grouping of operations is subject to various interpretations, which could lead to inconsistent implementation among the nine industry sectors covered by the rule. On the other hand, several commenters suggested that applicability be based on the familiar concept of ''chemical manufacturing process units'' as in other rules. Also, several commenters noted that a primary concern is that the proposed rule would require compliance facility-wide upon startup of any individual process that involves an urban HAP and that their concerns would be minimized, if not eliminated, if the affected source were based on process units that involve urban HAP rather than all chemical manufacturing operations.

Response: In the preamble to the proposed rule we explained the Agency's authority to regulate all HAP, not only urban HAP, for those area source categories needed to achieve the 90 percent requirement in CAA section 112(c)(3). See 73 FR 58358. In the proposal, we explained that we were applying the standards to the entire facility and all HAP because the management practice requirements are equally effective for all HAP and there is little, if any, additional cost for implementing the management practices for all emission sources. In addition, where add-on controls are required, demonstrating compliance for total HAP

is less burdensome than demonstrating compliance for speciated HAP and that the controls are equally effective at reducing non-urban HAP emissions. We also explained that it was our understanding that process vents could be ducted together easily so that the cost for controlling HAP emissions from all process vents would not greatly increase if the rule so applied. We also assumed when proposing the rule that facilities in these categories generally have only one or two processes and that the processes are in close proximity to one another and that facilities are not changing products or processes on a regular basis.

Commenters contend that many of our assumptions were in error and that if we based rule applicability on a CMPU basis instead of a facility wide basis the cost of compliance with the rule and many of their concerns would be addressed. As discussed below, based on the commenters' suggestion and an evaluation of the industry and costs associated with the proposed rule, we have in the final rule defined the affected source as the CMPUs that emit the Table 1 HAP and the heat exchange systems and wastewater systems associated with those CMPUs instead of requiring compliance for the entire facility if one process contains Table 1 HAP. As discussed in more detail below, we believe that most of our assumptions at proposal remain accurate because of this change.

In addition, as we stated in the proposal, we continue to believe that we have the authority to address all CAA section 112(b) organic and metal HAP for those CMPUs subject to this final rule. Commenters argue that EPA is not legally required to address all HAP, but they do not state that the Agency has exceeded its discretion in doing so. For the reasons set forth in the proposal, we appropriately exercised our discretion to regulate the HAP at issue in this final rule. Moreover, the commenter does not refute that the management practices and emission limits are equally effective at removing non-urban metal and organic HAP, and that demonstrating compliance for total HAP is less burdensome than demonstrating compliance for speciated HAP for those sources required to install add-on controls. For these reasons, the final rule requires area sources to control all 112(b) organic HAP from a CMPU that emits a Table 1 organic HAP and control all 112(b) metal HAP from a CMPU that emits Table 1 metal HAP, as well as the heat exchange systems and wastewater systems associated with those CMPUs.

At proposal we estimated four facilities would have uncontrolled batch process vent emissions greater than 19,000 lbs/yr, we assumed condensers could be used to control the emissions, and we estimated the total annual control cost would be $0.1 million/yr. We did not consider costs for facilities that are currently controlled to levels less than the proposed 90 percent level. After reevaluating the data, we estimate that 19 facilities have uncontrolled emissions greater than 19,000 lbs/yr, including the four uncontrolled facilities from the proposed analysis and another four facilities with control levels greater than 90 percent. If we had accounted for facilities with low current control levels, assumed centralized thermal oxidizers would be needed, and assumed considerably more duct work and related manifolding equipment was needed to connect numerous vents from several processes rather than only one or two processes, then the costs would be at least $2.1 million/yr, and the cost-effectiveness would be at least $17,000/ton of HAP controlled.

Because of our misunderstanding of the sources' configuration, we significantly underestimated the costs of compliance with the proposed rule when we defined the affected source as the entire facility if Table 1 HAP was emitted from any process. As stated above, we are revising the rule to require compliance only by CMPUs that emit one of the Table 1 HAP and heat exchange systems and wastewater systems associated with those CMPUs. Under the new construct, the cost and technological assumptions we made in the proposal are correct because the process vents of a CMPU are most likely to be located in the same building or otherwise in close proximity. In addition, estimating HAP in process vents and wastewater on a process basis is more consistent with normal operating practices for batch processes, and the owner or operator can estimate annual emissions by tracking the number of batches.

With this change, we are addressing the concern raised by some commenters that for complex facilities (according to a commenter the number of processes can exceed 100) costs may be significant for ducting all batch vents to a central control device. The change will also limit applicability such that the commenters' concern that the proposed rule would require compliance facility-wide upon startup of any individual process that involves an urban HAP will be eliminated. The Agency was mindful of the concern that requiring facility-wide compliance for each new process using a Table 1 HAP could affect a source's willingness to experiment with new products containing a Table 1 HAP. In addition, the costs to comply with such a rule would be significant and sources would not know whether new product lines would be profitable before being developed or whether the attempts to develop new products would be successful. Under the final rule, facilities using, producing, or generating a Table 1 HAP in a CMPU will only have to comply with the rule for that specific CMPU.

The change in scope of the affected source in the final rule from the entire facility to the CMPUs that emit Table 1 HAP is necessary because of our incorrect assumptions at proposal, as explained above. The actual costs and environmental benefits for the final rule will be similar to what was projected in the proposed rule. The rule will regulate the same number of facilities, the rule will require add-on controls for approximately the same number of units that we estimated at the time of proposal, and the rule will achieve comparable reductions of HAP and particulate matter (PM) emissions.

Although commenters agreed that EPA has the authority to regulate non-urban HAP, they suggest that the Agency only regulate the Table 1 HAP to reduce the burden and costs of compliance for some area sources. We believe we have addressed these concerns by redefining the affected source to be on a CMPU basis. If the CMPU uses, generates, or produces one of the chemical manufacturing organic urban HAP, then the standards apply to all CAA section 112(b) organic HAP in the affected CMPU. Similarly, if the CMPU uses, generates, or produces one of the chemical manufacturing metal urban HAP, then the standards apply to all CAA section 112(b) metal HAP in the process units and the associated vents. We continue to believe that the costs of controlling all organic or metal HAP, as applicable, are reasonable. We find here, as we explained at proposal, that the management practices and control requirements in this rule that reduce urban organic HAP and urban metal HAP from the affected sources are equally affective at reducing all CAA section 112(b) organic HAP or metal HAP, respectively.

Comment: Several commenters suggested exempting biological products (NAICS 325414), tall oil recovery systems, and carbon monoxide so that the area source rule is consistent with the MON. One commenter requested that the rule explicitly state whether or not it applies to ethanol production facilities.

Response: We have not exempted the cited processes, including industrial ethanol production, because they are

included in the scope of the nine listed area source categories (NAICS 325). However, the rule does not apply to beverage alcohol production, which is in NAICS 312.

Comment: Several commenters requested that facilities not be required to consider the presence of urban metal HAP in catalysts when determining applicability of the rule because the catalysts remain unchanged in the process equipment for significant periods of time, and their use results in little, if any, emissions. One commenter observed that, for catalysts, the potential for emissions is only from their production and recycling, not their use in fixed beds.

Other commenters requested exemptions for other forms of metals (*e.g.,* in nutrients for biological processes and metals in piping).

Response: We are concerned only with metal HAP emissions. Metal HAP in structures and metal HAP existing as articles (as defined in 40 CFR 372.3), where no metal HAP is released to the atmosphere, are not covered by this rule. However, if the use of catalysts in the processes results in Table 1 metal HAP emissions from the CMPU, then the CMPU is subject to the applicable standards for the affected CMPU. If the commenters' assessment of the level of emissions is accurate, management practices would likely apply in these cases because the sources would likely not fall within the subcategory for which add-on emission controls are required.

B. Compliance Dates

Comment: Several commenters requested adequate compliance time for existing sources that do not become subject to the rule until a change introduces urban HAP for the first time after promulgation of the final rule or the initial compliance date. The commenters indicated that such a situation would occur if a facility (1) adds a new process, with or without new equipment, that introduces an urban HAP, or (2) makes a process change that introduces an urban HAP (perhaps unexpectedly as an impurity in a feedstock or generated as a byproduct). Several commenters also requested adequate compliance time for new sources.

Response: The rule has a compliance period of 3 years for existing sources as authorized in the Part 63 General Provisions and section 112(i)(3) of the CAA. New processes at an existing source, whether for a new process unit or to expand an existing process unit, would become part of the existing source. If an existing source starts using a Table 1 HAP after the compliance date for existing sources has passed, the affected CMPU must comply with the standards at the time the new process begins. New sources must be in compliance upon startup or the date of publication of the final rule in the **Federal Register**, whichever is later.

C. Standards

1. General Issues

Comment: One commenter stated that, while the CAA gives the Agency the authority to issue GACT standards under section 112(d)(5) for area sources, EPA's decision to issue GACT standards instead of MACT standards is only valid if the Agency provides a rational explanation to support the decision. The commenter further stated that EPA provided no explanation for its decision to issue GACT standards instead of MACT standards and that this alone makes the Agency's decision arbitrary and capricious. The commenter also maintains that the Agency evaluated proposed GACT measures by considering only cost-effectiveness. The commenter states that the Agency rejected on cost-effectiveness grounds the control options for the following emission sources: continuous process vents with a TRE greater than 1; batch process vents for facilities emitting less than 19,000 lbs/yr of organic HAP emissions; metal HAP process vents for facilities emitting less than 100 lbs/yr; cooling tower systems with cooling water flow rates less than 8,000 gal/min; equipment leaks; and transfer operations. The commenter maintains that the statute does not direct EPA to set standards based on cost-effectiveness, and that the Agency cannot and does not argue that the control measures that were rejected are not appropriate for application by chemical manufacturing plants. The commenter also argues that the Agency does not claim that the economic impacts are too great, explain how profitable the plants are, or how economically significant the controls would be on the sources if required in this rule. The commenter maintains that EPA based its decision only on the Agency's views on cost-effectiveness and that EPA's views on this issue are not relevant under CAA section 112(d)(5) and, therefore, the standards are unlawful.

Response: As the commenter recognizes, in CAA section 112(d)(5), Congress gave EPA explicit authority to issue alternative emission standards for area sources. Specifically, CAA section 112(d)(5), which is entitled ''Alternative standard for area sources,'' provides:

> With respect *only* to categories and subcategories of area sources listed pursuant to subsection (c) of this section, the Administrator *may, in lieu of* the authorities provided in paragraph (2) and subsection (f) of this section, elect to promulgate standards or requirements applicable to sources in such categories or subcategories which provide for the use of generally available control technologies or management practices by such sources to reduce emissions of hazardous air pollutants.

See CAA section 112(d)(5) (*Emphasis added*).

There are two critical aspects to CAA section 112(d)(5). First, CAA section 112(d)(5) applies only to those categories and subcategories of area sources listed pursuant to CAA section 112(c). The commenter does not dispute that EPA listed the nine area source categories noted above pursuant to CAA section 112(c)(3). Second, CAA section 112(d)(5) provides that, for area sources listed pursuant to CAA section 112(c), EPA ''*may, in lieu of*'' the authorities provided in CAA section 112(d)(2) and 112(f), elect to promulgate standards pursuant to CAA section 112(d)(5). CAA Section 112(d)(2) provides that emission standards established under that provision ''require the maximum degree of reduction in emissions'' of HAP (also known as MACT). CAA section 112(d)(3), in turn, defines what constitutes the ''maximum degree of reduction in emissions'' for new and existing sources. See CAA section 112(d)(3).[6] Webster's dictionary defines the phrase ''in lieu of'' to mean ''in the place of'' or ''instead of.'' See Webster's II New Riverside University (1994). Thus, CAA section 112(d)(5) authorizes EPA to promulgate standards under CAA section 112(d)(5) that provide for the use of GACT, *instead of* issuing MACT standards pursuant to CAA section 112(d)(2) and (d)(3). The statute does not set any condition precedent for issuing standards under CAA section 112(d)(5) other than that the area source category or subcategory at issue must be

[6] Specifically, CAA section 112(d)(3) sets the minimum degree of emission reduction that MACT standards must achieve, which is known as the MACT floor. For new sources, the degree of emission reduction shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, and for existing sources, the degree of emission reduction shall not be less stringent than the average emission limitation achieved by the best performing 12 percent of the existing sources for which the Administrator has emissions information. CAA Section 112(d)(2) directs EPA to consider whether more stringent emission reductions (so called beyond-the-floor limits) are technologically achievable considering, among other things, the cost of achieving the emission reduction.

one that EPA listed pursuant to CAA section 112(c), which is the case here.[7]

The commenter argues that EPA must provide a rationale for issuing GACT standards under CAA section 112(d)(5), instead of MACT standards. The commenter is incorrect, however. Had Congress intended that EPA first conduct a MACT analysis for each area source category, and only if cost or some other reason made applying the MACT standard inappropriate for the category, would EPA be able to issue a standard under CAA section 112(d)(5), Congress would have stated so expressly in CAA section 112(d)(5). Congress did not require EPA to conduct any MACT analysis, floor analysis, or beyond-the-floor analysis, before the Agency could issue a CAA section 112(d)(5) standard. Rather, Congress authorized EPA to issue GACT standards for area source categories listed under CAA section 112(c), and that is precisely what EPA has done in this rulemaking.

Although EPA has no obligation to justify why it is issuing a GACT standard for an area source category as opposed to a MACT standard, we did explain at proposal that being able to consider costs and economic impacts is important when establishing standards for categories like these with many small sources. Furthermore, EPA must set a GACT standard that is consistent with the requirements of CAA section 112(d)(5) and have a reasoned basis for its GACT determination. As explained in the proposed rule and below, in determining what constitutes GACT for a particular area source category, EPA evaluates the control technologies and management practices that reduce HAP emissions that are generally available for the area source category. See 73 FR 58354. The legislative history supporting CAA section 112(d)(5) provides that EPA may consider costs in determining what constitutes GACT for the area source category.[8] EPA cannot consider cost in setting MACT floors, pursuant to CAA section 112(d)(3). Congress plainly recognized that area sources differ from major sources, which is why Congress permitted EPA to consider costs in setting GACT standards for area sources under CAA section 112(d)(5), but did not permit that consideration in setting MACT floors for major sources. This important dichotomy between CAA section 112(d)(3) and CAA section 112(d)(5) provides further evidence that Congress sought to do precisely what the title of CAA section 112(d)(5) states—provide EPA the authority to issue ''[a]lternative standards for area sources.''

Notwithstanding the commenter's claim, EPA properly issued standards for the area source categories at issue here under CAA section 112(d)(5), and cost-effectiveness was not the only consideration in setting the standards. As stated in the preamble to the proposed rule:

> Determining what constitutes GACT involves considering the control technologies and management practices that are generally available to the area sources in the source category. We also consider the standards applicable to major sources in the same industrial sector to determine if the control technologies and management practices are transferable and generally available to area sources. In appropriate circumstances, we may also consider technologies and practices at area and major sources in similar categories to determine whether such technologies and practices could be considered generally available for the area source category at issue. Finally, as noted above, in determining GACT for a particular area source category, we consider the costs and economic impacts of available control technologies and management practices on that category.

73 FR 58354, October 6, 2008.

As the commenter noted, EPA proposed emission standards for eight identified emission sources at chemical manufacturing area sources: Continuous process vents; batch process vents; metal HAP process vents; storage tanks; cooling tower systems; equipment leaks; transfer operations; and wastewater systems. We also proposed to subcategorize continuous process vents, batch process vents, metal HAP process vents, storage tanks, cooling tower systems, and wastewater systems based on variations of the size and type of the facility or the affected operation. We reviewed the GACT applied at area sources in the chemical manufacturing source categories at issue for each of the emission sources covered in the proposed rule. In determining what was generally available, we first considered what was generally available for each category or subcategory of emission source based on what was being applied at facilities or for emissions sources of a similar size and/or type of facility or emission source. For example, for continuous process vents, we considered what controls and management practices were in place for units with a TRE greater than 1 and what controls and management practices were in place for units with a TRE less than 1. For batch process vents, we considered what controls and management practices were in place at facilities that emitted more than 19,000 lbs/yr of organic HAP emissions and what controls and management practices were in place at facilities that emitted less than 19,000 lbs/yr of organic HAP emissions. We also considered the control technologies and management practices employed by chemical manufacturing area sources already subject to standards, by facilities in other areas source categories, and by chemical manufacturing major sources. 73 FR 58366.

After determining what controls and management practices were generally available to the emission sources in the nine source categories at issue, we considered the costs and economic impacts associated with requiring the various controls and management practices before determining what constituted GACT for each emission source. The Agency specifically considered the cost-effectiveness of the different control technologies and management practices on the categories and subcategories of emission sources as a means of evaluating the costs of those emission standards. EPA evaluated the controls and management practices that were generally available and, in certain circumstances, determined that GACT was not add-on controls because the cost-effectiveness of such controls would not have been reasonable if applied to all facilities or emission sources in a given category or subcategory.

Contrary to the commenter's assertions, the Agency's consideration of cost-effectiveness in establishing GACT and the Agency's views on what is a cost-effective requirement under CAA section 112(d)(5) are relevant. The United States Court of Appeals for the District of Columbia Circuit has stated that cost-effectiveness is a reasonable measure of cost as long as the statute does not mandate a specific method of determining cost. See *Husqvarna AB* v. *EPA,* 349 U.S. App. D.C. 118, 254 F.3d 195, 201 (D.C. Cir. 2001) (Finding EPA's decision to consider costs on a per ton of emissions removed basis reasonable because CAA section 213 did not mandate a specific method of cost analysis). CAA section 112(d)(5) does

[7] CAA Section 112(d)(5) also references CAA section 112(f). See CAA section 112(f)(5) (entitled ''Area Sources'' and providing that EPA is not required to conduct a review or promulgate standards under CAA section 112(f) for any area source category or subcategory listed pursuant to CAA section 112(c)(3), and for which an emission standard is issued pursuant to CAA section 112(d)(5)).

[8] Additional information on the definition of ''generally available control technology or management practices'' (GACT) is found in the Senate report on the 1990 amendments to the CAA (S. Rep. No. 101–228, 101st Cong. 1st session. 171–172). That report states that GACT is to encompass:

> * * * methods, practices and techniques which are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain the emissions control systems.

not mandate a specific method for considering cost when setting GACT standards.

The commenter has provided no information to support the argument that add-on control requirements for process vents, storage tanks, and heat exchange systems are generally available for all such emission sources in each of the subcategories. The commenter also failed to provide any information indicating that our cost-effectiveness determinations were unreasonable and, likewise, failed to provide any information concerning the economic impacts associated with requiring the standards that the commenter suggests represent GACT. The commenter appears to take issue with the manner in which the Agency establishes GACT but provides no alternative approach, instead only attacking the Agency's consideration of cost (*i.e.,* cost-effectiveness) as a consideration in the establishment of GACT. The Agency proposed GACT standards for the nine chemical manufacturing area source categories and subcategories that were established consistent with the requirements of CAA section 112(d)(5).

Comment: To avoid duplicative and conflicting requirements and to minimize burden, several commenters requested clarification of requirements when parts of an affected source under the area source NESHAP are also subject to requirements under other rules. Collectively, the commenters requested that the final rule address overlap with Part 60 NSPS in subparts Kb, VV, VVa, DDD, III, NNN, RRR, and the proposed YYY; Part 61 NESHAP in subparts V (as referenced from subparts F and J), L, Y, BB, and FF; subparts AA, BB, and CC in parts 264 and 265; State and local leak detection and repair (LDAR) requirements; other area source rules; and permit requirements that incorporate MACT standards. The commenters made three types of suggestions: (1) Specify that compliance with provisions in the other rule demonstrates compliance with the requirements in 40 CFR part 63, subpart VVVVVV, (2) allow compliance with whichever rule is the most stringent, or (3) exempt sources from the requirements in the area source rule when another rule applies. For example, one commenter requested that compliance with any existing Federal, State, local, or permitted LDAR requirements be allowed to demonstrate compliance with the subpart VVVVVV equipment leak standards, provided the current requirements are at least as stringent as the final subpart VVVVVV standards. This commenter also requested exclusions from the wastewater standards for any wastewater stream that is subject to 40 CFR part 61, subpart FF, whether or not treatment is required under subpart FF, and for any wastewater streams that become subject to 40 CFR part 60, subpart YYY after the compliance date of subpart YYY. Another commenter stated that when more than one area source rule applies, sources should be allowed to opt for compliance with the more stringent requirements.

Response: Provisions regarding overlap between 40 CFR part 63, subpart VVVVVV and other rules are included in the final rule. Compliance with provisions in overlapping rules as a means of demonstrating compliance with this final rule is allowed to the extent that requirements in the overlapping rule are at least as stringent as the requirements in subpart VVVVVV. For example, if the emission limits, monitoring requirements, and associated recordkeeping and reporting requirements in the overlapping rule are all at least as stringent as the requirements in subpart VVVVVV, then compliance with the overlapping rule demonstrates compliance with subpart VVVVVV. Conversely, if all of the provisions in subpart VVVVVV are more stringent than the corresponding requirements in the overlapping rule, then the final rule requires compliance with all of the provisions in subpart VVVVVV. In all other situations where some provisions in the overlapping rule are more stringent and others are less stringent than those in this final rule, an owner or operator may demonstrate compliance with the final rule by complying with all of the most stringent requirements, whichever rule they are from. Specifically, to comply with any requirement (emission limit, monitoring requirement, recordkeeping requirement, and/or reporting requirement) in an overlapping rule as an alternative to the requirement in subpart VVVVVV, an owner or operator must first determine that the requirement in the overlapping rule is at least as stringent as the corresponding requirement in subpart VVVVVV. This determination also must be documented in the notification of compliance status or, for processes added in the future, in the semiannual compliance report that covers the period when the process starts up. The final rule also states that sources are responsible for making accurate determinations concerning the more stringent standard and noncompliance with this rule is not excused if it is later determined that the source was in error in its initial notification of compliance and, as a result, is violating this rule. Compliance with this rule is the responsibility of the affected source regardless of any notification of compliance or semiannual compliance report.

Although the final rule includes these provisions for minimizing the compliance burden associated with overlapping rules, we did not include all of the commenters' other suggestions, for the reasons discussed below.

We disagree with one commenter's suggestion that a wastewater stream subject to 40 CFR part 61, subpart FF, but exempt from treatment under subpart FF should also be exempt from treatment requirements under 40 CFR part 63, subpart VVVVVV. The subpart FF requirements apply to the benzene content of the stream (or the total benzene in all waste). The benzene content has no relationship to the urban HAP (or other PSHAP) content of the stream. Therefore, treatment in accordance with subpart FF satisfies the treatment requirement under the final rule, but a stream that contains PSHAP and is exempt from treatment under subpart FF must receive treatment under this final rule.

40 CFR part 63, Subpart VVVVVV and another area source rule should never apply at the same time because the affected sources do not overlap. However, equipment could be subject to subpart VVVVVV and either the chemical preparations or paint and allied products area source rules at different times depending on what is being produced. In these situations, sources should comply with each rule, whenever it is applicable. Alternatively, the owner or operator may determine the most stringent requirements in the applicable rules and comply with that combination of requirements at all times.

Coke by-product recovery plants are not part of the chemical manufacturing area source category (*i.e.,* they are described by NAICS 324199, All Other Petroleum and Coal Products Manufacturing); therefore, 40 CFR part 61, subpart L does not overlap with 40 CFR part 63, subpart VVVVVV.

Comment: Several commenters stated that the proposed management practice requirements for process vents and storage tanks should not be finalized. Each of these commenters objected to the management practice requirements for one or more of the following reasons: (1) The proposed requirements are not GACT because they are not industry practice, are not required in other rules, achieve little or no emission reduction, and cost more than EPA has estimated;

(2) some equipment is not designed to operate with covers or enclosed, often because to do so would jeopardize the physical integrity of the unit (*i.e.,* pressure/vacuum vents on storage tanks); and/or (3) the requirements duplicate and/or potentially conflict with the proposed requirements for equipment leaks.

Several commenters made additional points. Two commenters stated that operating under vacuum should be exempted from or allowed as an alternative to having all closure mechanisms in the closed position. One commenter stated that equipment integrity verification procedures that are part of CGMP required by the U.S. Food and Drug Administration for pharmaceutical production processes should be recognized as an acceptable alternative to the management practices. One commenter requested an exemption from inspection requirements for inaccessible and unsafe openings, and another commenter noted that the burden estimates did not appear to reflect the cost to inspect openings that are not generally accessible. One commenter stated that, in order to protect themselves against disagreements with enforcement agencies, facilities will feel the need to use instrument-based LDAR techniques instead of the required sensory-based inspections.

One commenter indicated that facilities supplement applicable equipment leak regulations by having operation personnel watch for AVO indications of a hydrocarbon leak during their rounds, but they do not specifically check ''openings'' in equipment. Another commenter suggested that EPA rely on the equipment leak provisions because many of the elements in the proposed management practice requirements are already addressed in the equipment leak provisions.

Several commenters presented estimates of the level of effort and costs to implement the proposed management practices. One commenter estimated that total setup and training time would involve 100 hours for operations personnel, 20 hours of technical time, and 10 hours of administrative support. This commenter also estimated 20 to 40 hours to conduct each inspection, and an additional 5 to 10 hours of administrative support per inspection to manage the program.

A second commenter estimated 40 hours of engineering time to develop the initial list of openings and equipment, and 4 hours per year to maintain the list. In addition, this commenter estimated each inspection would take 24 hours of technician time, and a cost of several thousand dollars would be incurred for scaffolding and man-lift rentals. Overall, this commenter estimated the average cost to be about $6,000/yr per facility; however, the commenter estimated the cost for one facility would be cut by a factor of 5 if the rule applied only to processes using or emitting urban HAP rather than all processes.

A third commenter estimated the cost for process vent inspections to be about $1,200/yr rather than the $300/yr estimated by EPA because of the potentially large number of process vents that would have to be considered under the proposed applicability requirements.

A fourth commenter estimated 4 hours per process for setup of the data management system, 1.25 hours per inspection per process, and a contractor fee of $125/hr.

Response: In consideration of the specific comments on management practices as well as comments above regarding the scope of the affected source, we have made several changes to the proposed management practices. We made these changes because the proposed management practice requirements were redundant for CMPU with both batch and continuous process vents because the proposed requirements for both emission points applied to all process equipment. In addition, a more streamlined approach reduces the compliance burden without causing an increase in emissions.

In the final rule, the various proposed management practices for process vents, equipment leaks, transfer operations, and storage tanks were consolidated and simplified into one comprehensive set of management practices that are applicable to each affected CMPU. The comprehensive management practices in the final rule include requirements to equip each vessel with a cover or lid that must be in place when the vessel contains HAP (except for material addition and sampling) and to conduct sensory inspections for leaks throughout each affected CMPU on a quarterly basis. The proposed inspections for equipment leaks are included without change in the final management practice requirements, but the final rule also requires comparable inspections for leaks from process equipment in a CMPU (*e.g.,* reactors, distillation units, process tanks) and for storage tanks that are part of a CMPU and that store liquid that contains any Table 1 organic urban HAP.

We have also reevaluated the costs of the management practices. In the proposal, we estimated the cost of inspections for equipment leaks to be $1,187 per year per affected facility. This estimate included initial costs of $1,200 for 15 hours for planning and training that were annualized over 10 years plus estimated costs for quarterly inspection, recordkeeping, and program administration. The average time for an inspection and related recordkeeping was estimated to be 2 hours (8 hours per year) per facility, and an additional 7 hours per year were estimated for administration. We also estimated in the proposal that management practice inspections for batch process vents, continuous process vents, metal HAP process vents, and storage tanks each would take four hours per year, and that recordkeeping related to the inspections would require 1 hour per year. The total cost per inspection was estimated to be $276 per year (or $1,100/yr for a facility with all four types of emission points). This total is consistent with the low end of the range presented by commenters.

As discussed in sections III.A and V.A of this preamble, the final rule includes a narrower definition of the affected source and we believe that this will result in a lower level of effort for conducting the inspections required by the management practices. Instead of facility-wide inspections as anticipated at proposal, the final rule requires inspections only for CMPUs that use, generate or produce Table 1 urban HAP. Therefore, we think that the overall estimates from commenters are higher than warranted for the final rule. This is supported by one commenter's estimate of $240/yr (instead of $1,200/yr) for management practice costs if the inspections apply only to process units containing chemical manufacturing urban HAP.

The overall time estimated for the final management practice requirements is less than the total time for the proposed equipment leak inspections and management practices for process vents and storage tanks. This is due to fewer process units being subject to management practice requirements under the final rule. For the final standards, we assumed 3 hours for each inspection of an average affected facility with organic HAP and 2 hours for each inspection of an average facility with metal HAP. The estimated time is lower for facilities with metal HAP because the inspections will be focused more on openings than on leak points (*e.g.,* inspections of pumps and valves are not relevant because metal HAP is only released from process units). We also assumed 2 hours per year for recordkeeping at an average facility. Overall, the inspection and recordkeeping time was estimated to be

14 hrs/yr per facility for organic HAP and 10 hrs/yr per facility for metal HAP. We also estimated that the average initial planning and setup costs for management practices is the same as the proposed estimate for the equipment leak inspections. As a result, the total cost was estimated to be $1,500 per year for an affected facility with organic HAP and $1,200 per year for an affected facility with metal HAP emissions. These estimates are in reasonable agreement with the estimates of costs for management practices put forth by several of the commenters that suggested the applicability of the rule be based on the CMPUs using Table 1 HAP as opposed to the entire facility as in the proposed rule.

One commenter stated that some equipment is not designed to operate with covers or enclosed, often because to do so would jeopardize the physical integrity of the unit, but the commenter only listed pressure/vacuum vents on storage tanks. Because pressure/vacuum vents are not openings as we contemplate them in the final rule, and are instead part of the necessary design of certain tanks used for storage, we have determined that there is no need to amend the final rule to address this comment.

2. Batch and Continuous Process Vents

Comment: One commenter supported the proposed GACT control level of 90 percent for batch process vents as a reasonable approach for pharmaceutical manufacturing area sources. Other commenters, however, stated that the proposed control levels for both batch process vents and continuous process vents are too high to be GACT. According to one commenter, most State implementation plans (*e.g.,* Ohio) contain volatile organic compounds (VOC) reasonably available control technology (RACT) requirements that set control efficiency between 81 and 90 percent. Instead of using combustion controls that are typical at major sources, this commenter further stated that area sources most likely use condensers, carbon adsorption systems, or other material recovery systems, which have emission removal efficiencies in the 85 to 95 percent range. Therefore, the commenter encouraged EPA to adopt 85 percent removal as GACT for both batch process vents and continuous process vents. According to another commenter, the control level at existing sources should be set at 90 percent for combustion devices other than flares and 80 percent for process condensers. This commenter noted that a condenser at one of their facilities is permitted for 85 percent control and pointed out that the efficiency of condensers varies with changes in ambient temperature, humidity, and the type and concentration of HAP in the emission stream.

In addition to (or instead of) changing the required control level, several commenters suggested that existing controls be grandfathered because it would not be cost-effective to replace them. For example, one commenter suggested grandfathering any control equipment currently in compliance with State air pollution rules and permits until the next reconstruction or replacement of the control device or 10 years after the effective date of the rule, whichever occurs first. Another commenter requested grandfathering provisions for control devices achieving at least 80 percent reductions, either voluntarily or in accordance with State rules or permits. Another commenter stated that EPA should grandfather controls installed recently to meet RACT requirements.

Response: Based on comments received on the control efficiency requirements, we have reviewed and revised the GACT analysis for batch process vents. At proposal, detailed information on the control levels achieved at area sources was limited. Because we had limited control information, we pointed to various control level data at major source facilities in the source categories of interest and we assumed that these major source controls were used at or were transferable to area sources. Multiple commenters pointed out that the control efficiency requirement in the proposal was too high and reflective of major sources only and was not consistent with the typical control efficiencies achieved for batch process vents at their area source facilities. Multiple comments provided information that the control efficiency at area sources was lower than the control levels achieved at major sources. Commenters stated that control efficiency at an area source is in the range of 81 percent to 95 percent. Commenters also noted that area sources use condensers and recovery systems with control efficiencies lower than 90 percent. Based on a revised cost analysis, which considers existing control devices and efficiencies, we have determined that the GACT control efficiency for existing batch process vents should be 85 percent. We estimated that 13 process units that will be subject to the emission limit for batch process vents in the final rule are not already controlled to at least 85 percent. The total annual costs to control the batch process vents in these process units are estimated to be $360,000 and the cost-effectiveness is estimated to be $8,500/ton organic HAP. We do not have sufficient information to estimate the number of process units that have batch process vents controlled to levels between 85 percent and 90 percent. Based on the comments, there may be many such processes. However, if there are as few as two such processes (*i.e.*, total of 15 process units controlled to less than 90 percent), the total annual costs are estimated to be $0.43 million/yr, and the incremental cost-effectiveness relative to the 85 percent control option is estimated to be $13,500/ton. This cost is unreasonable; therefore, we have determined GACT for batch process vents at existing sources is 85 percent control and not 90 percent control. We are finalizing the proposed requirements for batch process vents at new sources (90 percent control) because the estimated cost-effectiveness relative to uncontrolled vents is reasonable ($2,300/ton as proposed).

The commenters have provided no legal analysis in support of their request that we grandfather existing controls as suggested. However, given the change to the control requirements for batch vents, we believe we have resolved the commenters' concerns with the proposed rule and established final GACT standards that reflect the efficiencies generally available at area sources. We have not revised the GACT control efficiency for new batch process vents or new and existing continuous process vents because we continue to believe that the standards that we are finalizing are generally available and reasonable from a cost perspective.

Comment: Several commenters requested that the MON batch process vent definition be used to be consistent with the preamble, database, other regulations applicable to chemical manufacturing, and general industry practice. Another commenter requested exclusions from the definition for the following: Opening of a safety device, heating, ventilation, and air conditioning exhaust vents, storage tank vents, and wastewater treatment unit vents.

One commenter asked that EPA exclude emissions from bottles and other containers from the batch process vent definition. According to the commenter, emissions from these containers are negligible and controlling them was not considered in the rulemaking record, is not cost-effective, and does not reflect GACT.

Response: As noted in the response to a comment about subcategorization of batch process vents later in this section,

applicability and standards for control of batch process vents in the final rule are consistent with the MON. Therefore, the definition for the term ''batch process vent'' is very similar to the definition of this term in the MON. A key feature of this definition is that it cites examples of equipment with emissions that may be batch process vents, and it specifies types of streams that are not batch process vents. For example, the definition states that storage tanks, surge control vessels, and bottoms receivers do not have batch process vents (because they are classified separately and subject to separate standards). Process tanks, however, do have batch process vents. Process tanks collect material discharged from a feedstock storage tank or unit operation within the process, discharge the material to another unit operation or product storage tank, have emissions related to the characteristics of the batch cycle, and do not accumulate product over multiple batches.

Comment: Several commenters asked that 40 CFR 63.11496(a)(1) be revised to allow alternatives to the referenced emissions calculations procedures in 40 CFR 63.1257(d)(2)(i) of the Pharmaceuticals Production NESHAP because the referenced procedures are difficult, costly, and do not allow the use of historical information. For example, one commenter requested that area sources be allowed to use mass balances, other calculation methodologies published by EPA (such as AP–42 and control techniques guidelines), and other technically acceptable methods (otherwise, the commenter estimated that small sources would need to spend $5,000 to $10,000 for emission estimation software).

Two commenters encouraged EPA to allow use of the emissions calculations procedures in 40 CFR 63.1323(b) and (e) of the Polymers and Resins IV NESHAP. One commenter asked that calculation procedures in the Batch Alternative Control Techniques (ACT) document be allowed, and another commenter asked that area sources be allowed to use (1) engineering estimates (in accordance with 40 CFR 63.1257(d)(2)(ii)) for any calculation rather than only if the 40 CFR 63.1257(d)(2)(i) procedures do not apply, (2) existing emissions calculations developed for compliance with a State or Federal rule for batch process vents, and (3) procedures to back-calculate uncontrolled emissions using inlet HAP and VOC concentrations based on controlled outlet permit limits, control removal capability, or knowledge of HAP and VOC concentrations in the vent (if not indicated in permit).

Response: Emissions must be calculated to determine whether the batch process vents are in the subcategory of greater than or equal to uncontrolled emissions of 10,000 lbs/yr, which requires management practices and compliance with emissions limits and control requirements, or in the subcategory of less than 10,000 lbs/yr of uncontrolled emissions, which requires only management practices for the process. For the purpose of this determination at area sources, we have concluded that all of the methods suggested by the commenters to calculate uncontrolled emissions at area sources are acceptable. Having choices also reduces the burden on affected sources. Therefore, the final rule specifies that organic HAP emissions from batch process vents may be estimated using process knowledge, engineering assessments, or test data. The procedures specified in 40 CFR 63.1257 of subpart GGG, in the Polymers and Resins IV rule, or in the Batch ACT are classified as engineering assessments.

Comment: One commenter stated that the GACT analysis for batch process vents is flawed and inconsistent with rule applicability. The commenter noted that batch process vent control requirements should be on a process unit basis to better reflect the Agency's analysis, industry practice, and GACT. This commenter also stated that the control threshold of 19,000 lb/yr HAP emissions for batch process vents is GACT, but only if EPA adopts a process unit basis.

Another commenter asked that EPA sharply limit control requirements for process vents in order to achieve GACT. To do this, the commenter suggested limiting source applicability to a process unit basis, setting a threshold for control at 10,000 lbs/yr/process as in MON, and requiring only management practices for all affected process units below 10,000 lbs/yr/process.

Response: It appears the commenters are addressing the basis for the proposed subcategorization of batch process vents. As we noted in the preamble for the proposed rule, the CAA provides EPA authority to distinguish among classes, types or sizes of sources within a source category. For the proposal, we concluded that ''factors relating to the type of operation (high solvent use) and size of operation (based on the number of batches) provide a reasonable basis for subcategorization'' of batch process vents. The commenters did not address application of these factors directly, but they stated that control requirements should be applied on a process unit basis. The process unit construct is consistent with standards for batch process vents in several MACT standards. We have considered this point in response to comments on applicability and concluded that the factors we considered at proposal in support of our subcategorization determinations for the entire facility apply equally to individual CMPUs. Furthermore, as noted above, the affected source for the final rule is defined as the collection of specific CMPUs that use, generate, or produce Table 1 HAP rather than the entire chemical manufacturing operations. Therefore, for the final rule, we determined that establishing subcategories based on individual CMPUs is also appropriate.

For the proposal, we ''considered the relative emissions reduction and costs for the area sources in the category in determining the appropriate emissions level at which to subcategorize the batch process vents.'' Specifically, we established two subcategories based on whether the total organic HAP emissions from all batch process vents in the entire affected source are less than 19,000 lbs/yr or equal to or greater than 19,000 lbs/yr. One commenter stated that this threshold is reasonable, but only if it is applied to an individual CMPU. Another commenter suggested using a threshold of 10,000 lbs/yr per CMPU.

We considered both suggestions. We do not believe 19,000 lbs/yr per CMPU is appropriate because the 19,000 lb threshold was intended to represent emissions from multiple CMPUs, several of which may not be part of the affected source under the final rule because we changed the scope of the rule to cover only those CMPUs that emit one of the chemical manufacturing urban HAP. Based on the results of a survey of five facilities by one commenter, area sources have, on average, two CMPUs that use, generate, or produce Table 1 HAP. Facilities in the MON database with urban HAP emissions also had an average of two process units with urban HAP emissions. A threshold of 10,000 lbs/yr per process was also used in the MON and that provides indicia of the size of a CMPU because the MON applies to major sources of HAP. Furthermore, as discussed in the response to another comment in this section, the estimated costs to meet an 85 percent control requirement for existing CMPUs with uncontrolled organic HAP emissions equal to or greater than 10,000 lbs/yr are reasonable ($8,700/ton). Therefore, we have established two subcategories for

the final rule. One subcategory is for batch process vents with uncontrolled organic HAP emissions less than 10,000 lbs/yr per CMPU, and the other is for batch process vents with uncontrolled organic HAP emissions equal to or greater than 10,000 lbs/yr per CMPU.

Comment: Three commenters suggested that the definition of ''continuous process vent'' should be consistent with the definitions in other rules such as the HON, MON, and/or Generic MACT (40 CFR part 63, subpart YY). One commenter requested this change because the proposed definition does not reflect the description given in the preamble, the supporting analyses, the rulemaking database, industry practice, or other chemical industry regulations. Another commenter requested that definitions for items that are exempted from the definition of ''continuous process vent'' such as ''relief device or valve'' and ''equipment leak'' be added to the rule.

Response: The final rule includes a definition for ''continuous process vent'' that is consistent with the definition of ''process vent'' in 40 CFR 63.101 and 40 CFR 63.107 of the HON. Terms or items in the definition mentioned by the commenters have the same meaning given in the HON.

Comment: One commenter recommended that small continuous process vents (*i.e.,* <0.1 lb/hr and <800 lbs/yr) be exempt from requirements to calculate a TRE value because the commenter estimated that the lowest TRE index for a HAP emission stream with these characteristics would be 30 or higher. Another commenter estimated the burden of establishing the variables needed to calculate the TRE index to be at least 4 hours per process vent.

Response: We have considered this issue and determined that, at an emission rate of 0.1 lb/hr, the TRE will be well above 1.0 regardless of other characteristics of the stream (*e.g.,* type of HAP, HAP concentration, and ratio of HAP to total VOC). The minimum TRE is obtained for streams with high concentrations of organic compounds. For streams containing common non-halogenated HAP (*i.e.,* benzene, toluene, and/or methanol), the lowest TRE values were determined to be between 16 and 30. As the concentration of these HAP decreases (due to increased air and other VOC in the emission stream) the TRE increases, typically to values above 30, as noted by the commenter. For streams with the halogenated compound methylene chloride, the minimum and typical TRE values were determined to be over 80. Therefore, to minimize the burden of characterizing streams, the final standards specify that calculation of the TRE is not required if the organic HAP emission rate is less than 0.1 lb/hr. We did not include a corresponding annual mass limit (*i.e.,* 800 lbs/yr, which is approximately equal to 0.1 lb/hr venting continuously for an entire year) because the TRE varies with changes in the operating hours per year. For a process that operates only a few weeks during the year, emissions of 800 lbs could result in a TRE less than 1.0.

Comment: One commenter stated that the impacts analysis for batch process vents is unrealistic and incomplete. According to this commenter, a more appropriate cost evaluation would include several batch vents per process, several processes per site, and either multiple control devices or expensive collection systems. In addition, the commenter stated that the cost analysis for incinerators should include the cost of halogen scrubbers when halogenated organics (*e.g.,* methylene chloride) are controlled in the incinerator. The commenter further stated that more widespread use of combustion devices in place of or in addition to existing scrubbers and condensers would be needed to meet the facility-wide 90 percent reduction requirement. Even if existing controls are grandfathered, the commenter stated all sites with emissions in the subcategory subject to control would incur costs to meet performance test, monitoring, recordkeeping, and reporting requirements.

One commenter stated that the impacts analysis for continuous process vents must include costs associated with existing controls, including control upgrades, performance tests, monitoring, and recordkeeping and reporting. Even with grandfathering of controls, all continuous process vents with TRE ≤1.0 would have to meet performance test, monitoring, and recordkeeping and reporting requirements.

Response: We have reevaluated the costs for control of batch process vents because the final rule applies to a smaller affected source than the proposed rule. We have also reevaluated the costs because the analysis in the proposed rule did not account for facilities that are achieving some level of control, but less than the required percent reduction. As stated above, we have also redefined GACT as 85 percent control for existing batch process units (90 percent for new units) that have uncontrolled organic HAP emissions equal to or greater than 10,000 lbs/yr, and our cost analysis at proposal was based on 90 percent control for batch process vents subject to emission limits.

In reevaluation of the costs, we concluded that information regarding the number of CMPU per area source, the number of CMPU with emissions of chemical manufacturing organic urban HAP, the fraction of total organic HAP emissions from batch process vents in process units with chemical manufacturing organic urban HAP, the typical control levels, flow rates, concentrations, operating hours, and other relevant data are either lacking or limited. Therefore, information from the baseline facility database from development of the MON was extrapolated to area sources. Details of this revised analysis are in the docket, but a summary of the analysis is set forth below.

We estimated that four facilities have uncontrolled batch process vent emissions from one CMPU with emissions greater than 10,000 lbs/yr per process. Another seven facilities have an estimated one or two CMPUs per facility with batch process vent emissions (for a total of nine CMPUs at the seven facilities) controlled to some level less than 85 percent. Information available to EPA indicates that each CMPU at the remaining facilities that have chemical manufacturing organic urban HAP emissions have uncontrolled batch process vent emissions less than 10,000 lbs/yr.

Based on this analysis, we estimated that the capital cost to add controls for the 13 CMPUs at 11 facilities that do not meet the 85 percent standard is $390,000, and the annual cost is $370,000/yr. These costs are based on the use of condensers. We do not believe incinerators will be needed, as suggested by a commenter, because the final standards apply to individual CMPUs (rather than facility-wide), and the required control for existing batch process vents (85 percent) can be averaged over all batch process vents within the CMPU. Because the analysis is based on the use of condensers, halogen reduction devices are not needed and have not been included in the analysis. Costs for performance tests (or design evaluations), monitoring, recordkeeping, and reporting are included in the final information collection request, not this cost analysis. The estimated HAP reductions are 43 tpy (versus 45 tpy at proposal). Thus, the cost-effectiveness is $8,700/ton of organic HAP reduced, which we consider to be reasonable for GACT.

For continuous process vents, we have not changed the cost impacts to include control equipment upgrades. Typically, if a continuous process vent is controlled in the absence of a regulatory driver, the vent has relatively

large emissions. We anticipate that such controls will be achieving the required 95 percent reduction requirement. Performance test, monitoring, recordkeeping, and reporting costs are estimated in the information collection request. We have updated these costs in two ways. First, we increased the number of affected facilities that must conduct initial and ongoing compliance to include facilities with controlled continuous process vents. Second, we increased the percentage of facilities that will conduct design evaluations instead of performance tests because the final rule allows design evaluations for all control devices used to reduce emissions from continuous process vents. Monitoring, recordkeeping, and reporting costs are minimal in the current information collection request because it covers only the 3 years after the promulgation date. Most existing sources will not be in compliance during this time because the compliance date is 3 years after promulgation. Subsequent information collection requests will have higher costs for these activities.

3. Metal HAP Process Vents

Comment: Several commenters recommended that EPA apply the threshold for control on a vent basis rather than facility-wide because the commenters interpreted the impacts analysis as applying to model plants where all emissions were assumed to come from a single vent and routed to a single control device. Two commenters noted that, unlike organic HAP, particulate-containing emission streams can be ducted only small distances. Numerous commenters recommended using the proposed 400 lbs/yr threshold for control rather than the alternative proposed threshold of 100 lbs/yr because the incremental cost to lower the threshold from 400 lbs/yr to 100 lbs/yr is unreasonable at an incremental cost-effectiveness of $33,660 per ton of particulate and $442,000 per ton of metal HAP.

Response: After careful consideration, we have decided to set the threshold for the subcategory of metal HAP process vents that are subject to emission limits of 95 percent reduction at the proposed level of 400 lbs/yr, for each CMPU that emits a Table 1 metal HAP (not the entire facility, as proposed). We selected the CMPU basis rather than the proposed facility-wide basis for the same reasons as for organic HAP process vents (see response above), although we estimate that a higher percentage of facilities that emit Table 1 metal HAP subject to this control requirement have only a single process that emits metal HAP, which means the affected source on a CMPU basis under the final rule may be the same as the facility-wide affected source under the proposed rule.[9] For example, the four largest emitters all make electrolytic manganese dioxide. Even if these facilities make the product in multiple processing ''lines,'' they have only a single CMPU under the rule because a CMPU is defined based on the product produced. Many other facilities make inorganic pigments, catalysts, or animal feed products. These facilities likely make a number of products with slight variations that are grouped in ''families'' that qualify as a single CMPU under the rule. For example, these manufacturers may make a variety of similar products that differ only in the form or purity of the final product (such as powders versus pellets), or the animal feed products may differ only in the specific mix of additives. But in each case, the metal HAP feedstock is the same, the processing steps and emissions are comparable, and the end-use or functionality of each product is the same; therefore, the activities would all be part of a single CMPU under this rule.

As we stated above, the final rule requires consideration of emissions from all vents associated with a CMPU when determining if the threshold for the 400 lbs/yr or greater subcategory is exceeded. We did not base the threshold for the subcategory on the emissions levels from individual vents because the CMPU may emit metal HAP from a number of different steps such as roasting, calcining, grinding, blending, drying, and packaging. The end result of basing the emission rate threshold on a vent basis would be to drastically reduce the urban HAP emission reductions under the rule.

Under the final rule, we estimate that up to 3 of the 30 facilities with uncontrolled metal HAP emissions greater than 400 lbs/yr on a facility basis may not be part of the subcategory when the threshold is applied on a CMPU basis.

In the preamble to the proposed rule, as part of our subcategorization discussion, we determined that the level of metal HAP emissions from the vents is a function of the purpose for which the metal HAP is present in the process. We found that emissions varied according to whether the metal HAP were intended to be incorporated into the product of the chemical manufacturing process and that metal HAP emissions from those types of facilities were generally larger where the metal was incorporated into the product. We also identified some vents that emit larger amounts of metal HAP, even though the metal HAP is not incorporated into the final product, and we determined that, in those circumstances, there were likely higher metal HAP emissions because of the large size of the facility or because the facility is using raw materials and/or fuel with higher levels of metal HAP impurities. We concluded that it was appropriate to base the subcategory on the amount of emissions of metal HAP from the process vents as a proxy for the type and size of the vent. In determining the appropriate emissions level, we considered relative emissions reductions and costs to the affected area sources and co-proposed subcategorizing based on either 100 lbs/yr or 400 lbs/yr of metal HAP emissions. We received no adverse comments on the proposed subcategorization approach.

The preamble to the proposed rule stated that costs for both the 100 lbs/yr and 400 lbs/yr thresholds are comparable to costs for PM control in other area source rules and for mobile sources. However, as noted above, numerous commenters stated that the incremental costs do not justify the 100 lbs/yr threshold and recommended selecting the 400 lbs/yr threshold. We recognize that the incremental cost for PM would be at the high end of the range of costs for other area source rules. The high incremental cost-effectiveness reflects a small incremental PM reduction (40 tpy from 25 facilities), and, in regards to the basis for the subcategory, the 400 lbs/yr level indicates a much higher emission potential (*i.e.,* size of facility) and we have decided that the 400 lbs/yr threshold best defines the subcategory. We received no adverse comments on the proposed 400 lbs/yr threshold.

4. Storage Tanks

Comment: Two commenters asked that the storage tank requirements be based on the organic HAP partial vapor pressure instead of the VOL vapor pressure, as specified in 40 CFR part 60, subpart Kb because it is the HAP that are subject to standards.

Response: Most rules in 40 CFR part 63 (*i.e.,* NESHAP rules) establish MTVP thresholds for total organic HAP because HAP is the regulated pollutant.

[9] We assumed at proposal that facilities emitting Table 1 metal HAP would generally have one process so the change of affected source from the facility to the CMPU does not require us to reevaluate our subcategorization determination as with the change in batch process subcategories. The factors we considered in establishing the subcategories for metal HAP process vents at proposal still apply under this final rule.

This area source rule also regulates only HAP. As with the other rules, we intended to base the MTVP thresholds in the proposed rule on organic HAP, but we inadvertently neglected to override the provisions in the referenced section of 40 CFR part 60, subpart Kb that specify the threshold is based on the MTVP of the entire VOL. We have corrected this error in the final rule. Table 5 to the final rule specifies all applicable thresholds, and each MTVP threshold is based on the organic HAP vapor pressure.

Comment: Several commenters requested that the definition of ''storage tank'' be changed to match the language in the preamble to the proposed rule and/or definitions in MACT rules. Specific requested changes included: (1) Exclude wastewater storage because wastewater storage tanks are included under the wastewater provisions (similar to other MACT standards); (2) exclude bottoms receivers and surge control vessels because these vessels are typically used in the chemical industry as process vessels; (3) exclude process tanks to be consistent with language in the MON; (4) exclude waste tanks because they are ancillary to the process and are typically subject to regulation under the Resource Conservation and Recovery Act (RCRA) (40 CFR Parts 264/265 and Subpart BB); and (5) limit the definition to tanks that store liquid that contains any of the urban HAP listed in Table 1 to 40 CFR part 63, subpart VVVVVV, not all HAP.

Response: We have considered the comments and determined that using similar definitions across the multiple standards is appropriate. The definition in the final rule is consistent with the preamble and definitions in the MON, the HON, and the Pharmaceutical MACT. The definition of ''storage tank'' in the final rule excludes tanks storing organic liquids containing HAP only as impurities. It excludes process tanks because these tanks are subject to the process vent standards. Wastewater tanks are excluded from the definition of ''storage tank.'' It also excludes surge control vessels and bottoms receivers because these vessels are associated with continuous process operations; note, however, that, as in the proposed rule, they are subject to the same standards as storage tanks (*i.e.,* all are subject to management practice requirements, and controls are required for those that contain Table 1 HAP and meet the same size and MTVP thresholds specified for storage tanks).

Comment: Several commenters asked that the rule include alternative storage tank control options such as vapor balancing, the procedures specified in 40 CFR part 63 subparts WW and SS, and the procedures specified in the Consolidated Federal Air Rule (CAR) (40 CFR part 65, subpart C).

Response: Vapor balancing is a technique whereby the vapor space of the storage tank is connected to the vapor space of a tank truck or railcar that contains liquid that will be transferred to the storage tank. As liquid from the tank truck or rail car is transferred to the storage tank, vapors displaced from the storage tank are routed back to the tank truck or railcar. This technique has been determined to provide at least equivalent reductions in HAP emissions as the use of an internal or external floating roof or routing displaced vapor to a control device, provided several conditions are met: (1) The tank vent pressure setting must be high enough to prevent breathing losses, (2) the tank truck or railcar must be vapor tight, and (3) the tank truck or railcar cleaning or reloading facility must also vapor balance or route the collected vapors to a control device.

The tank vent pressure setting must be high enough to prevent breathing losses because vapor balancing controls only the working loss emissions that are generated by filling the tank. As discussed in the preamble to proposed amendments to 40 CFR part 63, subpart GGG (69 FR 19161, April 10, 2000), we determined that a setting of at least 2.5 lbs per square inch gage will eliminate breathing losses from tanks.

If a system is leak-tight and very little or no air is drawn into the system to become saturated with HAP, a source of emissions is essentially eliminated. To ensure that the tank truck or rail car is vapor-tight, the vapor balancing provisions in MACT rules (*e.g.,* 40 CFR 63.1253(f) of the Pharmaceuticals Production NESHAP) require tank trucks and railcars to have a current certification in accordance with the U.S. Department of Transportation pressure test requirements of 49 CFR part 180 for tank trucks and 49 CFR 173.31 for railcars. To further ensure the system is leak tight, the vapor balancing provisions in MACT rules require that pressure relief devices on the storage tank and the railcar or tank truck from which the storage tank is filled shall not open during loading. To ensure that the applicable emission limit is met, vapor balancing provisions in MACT rules require that the cleaning or reloading facility shall implement vapor balancing when filling the tank truck or railcar or the tank truck or railcar shall be connected to a closed-vent system with a control device that reduces emissions by the required amount. Because GACT for storage tanks in the subcategory of larger tanks storing liquids with higher vapor pressures for which an emission control device is required at chemical manufacturing area sources is equivalent to the NESHAP requirements applicable to MON and HON facilities, we determined that vapor balancing requirements of the MON and HON also achieves HAP emission reductions at least equivalent to the emission reductions required by the standards set forth in this final rule. Therefore, the final rule allows vapor balancing in accordance with the provisions in 40 CFR 63.2470(e) of the MON as a compliance option for storage tanks at chemical manufacturing area sources.

Subpart WW in part 63 includes design, operational, and inspection requirements for internal and external floating roofs that are comparable to the GACT requirements that are based on 40 CFR part 60, subpart Kb. The primary difference between the two subparts is that subpart WW allows up to 10 years to come into full compliance with seal and deck fitting control requirements if the tank is currently equipped with a floating roof that does not meet these requirements. In the preamble to the final Gasoline Distribution Area Source NESHAP (40 CFR part 63, subpart BBBBBB) (73 FR 1926, January 10, 2008), we determined that the requirements in subpart WW are equivalent to the GACT requirements that were based on subpart Kb for gasoline distribution facilities. Since the GACT requirements for chemical manufacturing area sources are also based on subpart Kb requirements, implementing the subpart WW requirements at chemical manufacturing area sources also will achieve HAP reductions that are at least equivalent to the HAP reductions resulting from implementing the subpart Kb requirements. Therefore, the final rule allows compliance with subpart WW as an alternative compliance option, but without the 10 year compliance period. All storage tanks must be in full compliance by the relevant compliance date, as set forth in this final rule.

40 CFR part 63, subpart SS contains provisions for flare and non-flare control devices that are comparable to the requirements for control devices in 40 CFR part 60, subpart Kb. For example, both require the closed-vent system to operate with no detectable emissions as indicated by an instrument reading less than 500 parts per million (ppm) above background and visual inspections; subpart SS may even be more stringent in that it requires bypass monitoring and it specifies how frequently to conduct both instrument and visual inspections. Both subpart Kb

and subpart SS require the owner or operator to demonstrate initial compliance based on a design evaluation, although subpart SS provides more details of what to consider in the design evaluation, and subpart SS explicitly allows performance test results as a means to demonstrate initial compliance. Both subpart Kb and subpart SS also require the owner or operator to develop and operate in accordance with an operating or monitoring plan that specifies what parameter(s) will be monitored to demonstrate ongoing compliance with the percent reduction emission limit. Based on these similarities, we have determined that compliance with subpart SS will achieve HAP emission reductions at least equivalent to the reductions achieved by compliance with subpart Kb. Therefore, the final rule allows compliance with subpart SS as an alternative compliance option.

The CAR was developed as an alternative for facilities to comply with a single rule in place of a variety of different new source performance standards (NSPS) and NESHAP rules. We do not think it is appropriate to allow compliance with the CAR as an alternative for area sources subject to this final rule because 40 CFR part 60, subpart VVVVVV is the only NESHAP that applies to most chemical manufacturing area sources. While we are not including compliance with the CAR as an option, the final rule includes provisions that allow an owner or operator to comply with the most stringent requirements from both an overlapping rule and the final subpart VVVVVV as a means of demonstrating compliance with the final rule.

Comment: Two commenters stated that EPA significantly underestimated the number of storage tank controls that will be required and, thus, the capital cost and burden. Based on their review of Docket Document EPA–HQ–OAR–2008–0334–0008, the commenters concluded that EPA only considered controls for tanks storing urban HAP. However, as drafted, the proposed rule requires control of all storage vessels at a site meeting the size and vapor pressure criteria and storing any material containing any HAP above impurity levels.

Response: As discussed above, the final rule applies only to storage tanks that are part of a CMPU in the affected source and that contain a chemical manufacturing organic urban HAP. Although management practices are required for all storage tanks that are part of an affected CMPU, add-on controls are required only for tanks that meet specified size and organic HAP vapor pressure thresholds. Many of these tanks are likely already subject to 40 CFR part 60, subpart Kb and already in compliance. We believe that the number of tanks that will be subject to the control requirement applicable to the subcategory for large storage tanks under the final rule is consistent with the proposed impacts analysis.

5. Wastewater

Comment: Numerous commenters requested changes to the definition of ''wastewater'' to clarify which streams are included and to limit the scope of the term. Each of the commenters requested one or more of the following changes: (1) Clarify that wastewater streams are water that is discarded from the CMPU or control device (or, alternatively, the chemical manufacturing operations), not from the affected source; (2) specify that the water must contain PSHAP, not any HAP listed in Table 9 to 40 CFR part 63, subpart G; (3) specify that wastewater must be at least 50 percent water or ''primarily'' water; (4) include flow and HAP concentration thresholds; (5) identify types of water streams that are not considered wastewater, as in the preamble to the proposed rule and previous MACT rules; and/or (6) make the definition consistent with the definition of wastewater in previous MACT rules.

Response: We have considered the comments and decided that using similar definitions across the multiple standards is appropriate. The definition in the final rule includes most of the suggestions made by commenters and is consistent with definitions in the MON and the HON. However, the definition does not include a minimum water percentage. As in the HON and other NESHAP, EPA intends to regulate as wastewater any stream that: (1) Exits process unit equipment; and (2) meets the concentration and flow rate criteria that are specified in the definition because such wastewater streams have a significant potential for emissions and should, therefore, be regulated.

Comment: One commenter noted that the solubility in water of some PSHAP is greater than 10,000 ppmw. Therefore, the commenter requested that decanting not be required if no separable organic phase is present in the wastewater stream.

Response: Based on the comments and our additional analysis, we have determined it is appropriate to redefine the subcategories of wastewater. Specifically, we are amending the subcategories to account for wastewater that has 10,000 ppmw or greater concentration of PSHAP but does not have a water phase and an organic phase. In the proposed rule, we determined that removal of the organic layer by gravity separation was GACT, but gravity separation is not feasible for wastewater that does not contain separate organic and water phases. Under the final rule, we are establishing one subcategory based on both the PSHAP concentration of 10,000 ppmw or greater and the presence of a separate organic phase. Wastewater with a PSHAP concentration of 10,000 ppmw or greater, but without a separate organic phase, and wastewater with a PSHAP concentration of less than 10,000 ppmw represent the other subcategory.

As in the proposed rule, we have determined that GACT is removal of a separate organic layer by gravity separation when the PSHAP concentration exceeds 10,000 ppmw and there is a separate organic phase. The treatment requirements in the final rule for both the organic and wastewater phases are consistent with the requirement set forth in the proposed rule.

Comment: Several commenters requested additional compliance options for streams that contain more than 10,000 ppmw PSHAP, particularly for wastewater that is collected for shipment offsite for treatment or disposal. For example, one commenter recommended that decanting be required only when the aqueous phase will be sent to on-site or offsite treatment, but facilities should not have to separate a free organic phase from wastewater that is managed in recycle, energy use, or hazardous disposal operations that either have integral organic phase separation or do not require such separation before recycle, energy use, or disposal. Another commenter stated that wastewater sent to a permitted wastewater treatment facility (such as a publicly owned treatment works (POTW)) should be exempt. Another commenter stated that separation should not be required for wastewater collected for shipment offsite to be treated by a RCRA-permitted hazardous waste incinerator, a POTW, or oil recycling operations. According to one commenter, the rule should allow both direct piping to biological treatment and combustion of the entire stream without separating out the water phase, and another commenter added that combustion should be allowed for streams that contain small amounts of water relative to the organic phase. One commenter also noted that other separation techniques, such as stripping or distillation, may be more effective than

decanting, and some oil-water separators do not rely on the principle of gravity.

Response: The final rule contains provisions for alternative control of organic HAP from streams with >10,000 ppmw PSHAP. The final rule allows: (1) Several separation techniques; (2) hard piping to an on-site hazardous waste treatment unit; or (3) shipment offsite for any similar treatment. These compliance options are included in Table 6 of the final rule and provide at least equivalent emission reductions. The other alternatives cited by the commenters may not provide at least equivalent emission reductions as the final rule and, therefore, we are not including them in the final rule.

Comment: One commenter argued that the proposed requirements for wastewater streams that contain >10,000 ppmw of PSHAP are not GACT because the actual costs are significantly higher than EPA estimated. According to the commenter, EPA's impacts analysis omitted the cost to determine the partially soluble HAP concentration in each wastewater stream, which ranged from 10 to 250 streams per facility at facilities the commenter surveyed.

Response: In the burden analysis for the information collection requirements for the proposed rule, we estimated compliance demonstration costs assuming that all area sources with organic urban HAP would have wastewater. We also assumed that a typical area source would spend 20 hours characterizing the wastewater (*e.g.,* based on knowledge of the wastewater), and that 50 percent of the facilities would conduct sampling and analysis for an average of 10 streams. The cost of analysis was assumed to be $435. The total cost was estimated to be $169,400 per year for characterizing the streams according to process knowledge and $210,400 per year for sampling and analysis.

For the final burden estimate, we believe the number of streams will be lower than the 10 estimated at proposal because only those wastewater streams that are discarded from a CMPU that uses, generates, or produces chemical manufacturing organic urban HAP are part of the affected source for the final standards. According to one commenter, the average number of points of determination for five surveyed facilities is approximately two wastewater streams per process. We are estimating two CMPUs per facility and 2 points of determination per CMPU for a total of four process streams per facility.

The final rule allows PSHAP concentration to be determined based on either process knowledge or sampling and analysis. We assumed that 50 percent of facilities would perform sampling and analysis and the other 50 percent would rely on process knowledge. For the process knowledge approach, we assumed 20 hours of in-house labor per facility at a total cost of $1,750, as in the proposed analysis. However, we corrected an error in the proposed analysis and applied this cost to only 50 percent of the facilities rather than all of them for the final rule. For the sampling and analysis approach, we assumed $435 per sample for analysis and 20 hours of time for a contractor ($125 per hour labor rate) to collect one sample per wastewater stream per facility; thus, the total cost of this approach is estimated to be $4,240 per year per facility. We assumed one sample per stream because one sample would be sufficient to meet the compliance requirements. The estimate of 20 hours at $125 per hour is based on a commenter's estimate for retrieving four samples. One commenter noted that the cost of triplicate analysis is approximately $885. Assuming that the average cost per sample is not based on the number of samples, the cost on a per sample basis would be $295. We retained the $435 sampling cost used at proposal for consistency and to be somewhat conservative in our estimate.

The total respondent burden for the final wastewater standards was estimated to be $84,700 per year for characterizing the streams according to process knowledge and $205,100 per year for sampling and analysis, which we believe is reasonable. The overall respondent burden for wastewater streams has decreased by $90,000 from proposal to the final standards.

Comment: According to several commenters, decanting is not justified for small streams, given the expense of the equipment and the small potential benefit. For example, one commenter indicated the capital and operating cost for a facility could exceed $100,000 while achieving only minimal emissions reductions because of low throughput or low volatility of the HAP. Another commenter requested that streams containing up to 200 lbs/yr of PSHAP be excluded from the decanting requirement.

One commenter stated that small streams that contact only highly insoluble materials and streams that are excluded from the definition of wastewater in other rules should not be subject to the treatment requirement because such streams are not currently treated, the cost and burden to treat such streams were not considered in the rulemaking record and, therefore, treatment for all streams cannot be GACT.

Response: The revised definition of wastewater clarifies the types of water discharges that are wastewater. With the changes to the final rule for wastewater systems, we do not agree that our cost estimates are in error and that there will be additional costs incurred to meet the treatment requirements in the final rule.

Comment: Several commenters objected to the proposed maintenance wastewater requirements and stated that the wastewater requirements should be limited to process wastewater. One commenter stated that the proposed requirement to decant the organic phase from maintenance wastewater is particularly problematic because maintenance wastewater is often generated in small volumes and collected in various vessels prior to on-site or offsite energy recovery, reuse, or recycling. The maintenance wastewater is not discharged directly into an individual drain system. The commenter pointed out that decanting these streams first would add a second transfer step, which would increase the emissions potential relative to the current operating practice.

Response: By adding the compliance options discussed above, we have addressed industry concerns regarding wastewater generated in small quantities, wastewater that is reused or recycled, and wastewater shipped offsite. For example, instead of requiring only decanting, the final rule allows an owner or operator the alternative to collect a small wastewater stream and send it to an offsite hazardous waste treatment facility. This option applies to maintenance wastewater as well as to process wastewater. Considering the requirements of the final rule, we see no reason to distinguish between a process wastewater stream and a maintenance wastewater stream.

6. Transfer Operations

Comment: One commenter stated that the data and analysis supporting the proposed rule demonstrate that the controls currently in place at chemical manufacturing area sources are already GACT and that no additional requirements are justified. The commenter indicated the rule should be revised to incorporate criteria that reflect the submerged fill or equivalent controls currently in place and should impose no additional requirements. This commenter also stated the management practice requirements that are based on requirements for transfer at gasoline distribution facilities should be deleted. According to the commenter, these requirements generally are not

GACT (because they impose significant cost but achieve no emission reduction), are unclear, and conflict with other requirements and regulations. The commenter provided labor hour estimates for the various management practice tasks and estimated that the total cost would be more than 10 times higher than EPA estimated.

Response: As discussed in section III of this preamble, the management practice requirements have been revised in the final rule to better reflect what is generally available for these categories. Upon review of the comments, we recognized that the proposed management practice requirements were redundant for CMPU with both batch and continuous process vents because the proposed requirements for both emission points applied to all process equipment. In this final rule, the various proposed management practices for process vents, equipment leaks, transfer operations, and storage tanks were consolidated and simplified into one comprehensive set of management practices that are applicable to each affected CMPU. The comprehensive management practices in the final rule include requirements to equip each vessel with a cover or lid that must be in place when the vessel contains HAP (except for material addition and sampling) and to conduct sensory inspections for leaks throughout each affected CMPU on a quarterly basis. The proposed inspections for equipment leaks are included without change in the final management practice requirements, but the final rule also requires comparable inspections for leaks from process equipment in a CMPU (*e.g.,* reactors, distillation units, process tanks) and for storage tanks that are part of a CMPU and that store liquid that contains any Table 1 organic urban HAP.

For transfer operations, we retained in the final rule the requirement to use submerged/bottom filling or other controls for all loading of tank trucks and railcars (excluding reactive and resinous materials). As the commenter noted, the combination of these loading procedures and process unit-wide management practices is consistent with operation at most area sources and has been determined to be GACT, unlike the proposed requirements that were based on the requirements in the gasoline distribution rule. Therefore, the final standards generally do not impose many additional requirements except for the few facilities that may not already be implementing these procedures. Although emissions from transfer operations are less than emissions from other emission points at chemical manufacturing area sources, we believe that the reason for this is, in part, that most facilities are implementing submerged loading or other control techniques. The standards ensure that these practices continue.

Comment: Three commenters requested that the submerged (and bottom) fill requirement be deleted for transfer of resins because of operational and safety concerns. One commenter noted that resins can stratify and some of the layers formed might be flammable. Another commenter noted that submerged fill may be dangerous for certain resins and polymers, particularly those that contain styrene. The third commenter noted that the Amino and Phenolic Resins NESHAP (40 CFR part 63, subpart OOO) has no requirements for transfer of resins because EPA determined that the resins contain insignificant quantities of HAP and are not cost-effective to regulate. One commenter also requested an exemption from the submerged/bottom loading requirement for loading of all reactive, viscous, and sticky materials due to safety concerns, the fact that such procedures are not general industry practice, and because past efforts have shown the liquids stick and sometimes harden in the fill pipe, resulting in a significant expense to replace the fill pipe and dispose of the hardened material as a RCRA hazardous waste.

Response: In response to commenters concerns, we reevaluated types of liquid transfers to determine GACT for transfers of the types of materials described by the commenters. We determined that submerged loading is not a generally available industry practice for transferring reactive or resinous materials for the reasons articulated by the commenters. To address this issue, the final rule specifies that submerged or bottom loading is not required for reactive or resinous material. However, transfer operations associated with these materials must comply with the other management practices.

7. Heat Exchange Systems

Comment: One commenter stated that EPA should regulate cooling towers where process fluid contains not less than 5- or 10-percent HAP to keep applicability consistent with historic LDAR applicability criteria and to minimize burden. Other commenters stated only re-circulating cooling towers serving process heat exchangers containing 5 percent by weight organic HAP that could leak into the water should be subject to cooling tower requirements.

Two commenters requested EPA clarify whether ''once-through'' cooling systems, comfort cooling towers, or other non-process cooling towers are excluded. These commenters suggested that exemptions in the HON under 40 CFR 63.104(a) be included in the rule, with some modifications, and that the exemptions apply to all cooling towers, not only those with >8,000 gal/min circulation rates.

Response: Although the proposed rule used the term ''cooling tower'' systems, we intended it to mean ''heat exchange'' systems as is consistent with the HON. Furthermore, the language in item 5.b of Table 2 to the proposed rule required affected sources to comply with the requirements contained in 40 CFR 63.104(a)(1) through (6) of the HON. That provision listed systems that were not subject to the proposed rule (*i.e.,* systems with cooling water side pressure that is at least 35 kPa greater than the process side, systems with intervening fluids with <5 weight percent total HAP, systems used to cool process fluids containing <5 weight percent HAP [as specified in Table 4 of 40 CFR part 63, subpart F for recirculating systems, and as specified in Table 9 of 40 CFR part 63, subpart G for once-through systems], and once-through systems that meet specified National Pollution Discharge Elimination System permit requirements).

Therefore, the final standards for heat exchange systems apply to all heat exchange systems that are part of the affected source and that do not meet conditions in 40 CFR 63.104(a) of the HON. The heat exchange systems covered by the final rule are also exactly the same as the cooling tower systems we intended to cover under the proposal and on which our cost and emission reduction estimates were based.

While a commenter noted that once-through systems are exempted in the HON, it should be noted that the HON covers both recirculating and once-through heat exchange systems under the 40 CFR 63.104 heat exchange system requirements. Consistent with the proposal, the final rule applies to once-through cooling waters in accordance with 40 CFR 63.104(a).

We believe that control of once-through heat exchanger cooling systems is appropriate for several reasons. Emissions of volatile HAP occur readily from open water sources. While the stripping process may not be as fast as in a cooling tower, once-through cooling water will have a much longer exposure to the atmosphere than a system with a cooling tower. While the emissions may occur over a longer time period, all

available scientific evidence and fate modeling studies of open water systems leads us to conclude that essentially all volatile HAP will be released into the atmosphere. Therefore, we see no reason why HAP leaks from heat exchange systems into once-through cooling water should be treated any differently than HAP leaks from heat exchange systems that have cooling towers.

For the final rule, we clarify that heat exchange systems are part of the affected source and specifically address once-through cooling systems. We have included a definition of ''heat exchange system'' as in the HON. These changes clarify the applicable requirements and also clarify that comfort cooling towers and any other non-process cooling towers are not subject to standards.

Comment: Two commenters stated that the management practice requirement for systems with <8,000 gal/min circulation rate should be clarified. These commenters requested that area sources be allowed to sample to determine if indications of a leak identified by an inspection actually reflect a leak that is large enough to justify a costly repair or a process shutdown. Because § 63.104(b) of the HON defines a leak as 1 ppm, and this level was also used in the impacts analysis for the proposed standards, the commenters requested that area sources be allowed to determine if this condition is met before being required to repair after an inspection reveals indications of a leak.

Response: The final rule specifies that the owner or operator must either eliminate indications of a potential leak or demonstrate that the HAP concentration in the cooling water does not constitute a leak, as defined in 40 CFR 63.104(b)(6). If the concentration threshold is not met, the system is assumed not to be leaking, and no other requirements apply for that inspection cycle. We believe this is appropriate because HAP may be inadvertently introduced to the heat exchange system in ways other than through a leak. Requiring the facility to cease operations based on minimal HAP present is not GACT as it would create considerable cost with virtually no HAP reductions. In addition, an alternative has been added for small heat exchange systems to allow compliance with the same requirements that apply to large heat exchange systems instead of the requirements that would otherwise apply to the small heat exchange system.

Comment: One commenter stated the costs estimated for the cooling tower requirements are significantly underestimated and suggested several specific revisions to the cost analysis involving the number of cooling towers per site, number of samples to be collected, operator sampling time, and sample analysis costs. Specifically, commenters suggested that EPA should: Assume two cooling towers per site; assume four samples per quarter for Options 2 and 3 because many cooling towers have several return headers that each must be monitored and because both inlet and outlet monitoring will be required for many cooling towers to account for organic cooling tower additives, heavy HAP and soluble HAP which build up in the system; operator sampling time should be 1 hour under Options 2 and 3; sampling of total hydrocarbons or surrogate species costs $200 to $400 per sample under Option 2; sampling for HAP speciation requires multiple samples or gas chromatography/mass spectroscopy for $300 to $800 per analysis; HON procedures require triplicate samples; and add cost associated with check samples and identifying the source of the leak.

Response: We have made several revisions to the costs based on comments and to correct omissions at proposal. While commenters suggested that there are two cooling towers at each facility, after limiting the affected source to CMPUs and associated heat exchange systems and wastewater systems that use, produce, or generate chemical manufacturing urban HAP, it is likely that area sources have one cooling tower (or heat exchange system) in the affected source. Option 1 in both the proposed and final analyses is a quarterly sensory inspection and leak repair program, and Option 2 consists of the requirements for surrogate monitoring and leak repair in 40 CFR 63.104(c) of the HON. As discussed in section III.B.2.f of this preamble, the Option 1 requirements were determined to be GACT for small heat exchange systems, and the Option 2 requirements were determined to be GACT for large heat exchange systems.

For the final Option 2 cost analysis, we increased the number of quarterly samples as suggested by one commenter, *i.e.,* increased the number to be taken from one sample to three samples, given that some operators will monitor the heat exchange exit stream before the outlet cooling water is manifolded with other streams. We included a 1-hour sampling time for Option 2, as suggested by a commenter. We also revised the recordkeeping time to 1 hour per quarter for both Options 1 and 2 because the type and amount of information to be recorded are comparable under the two options. We inadvertently omitted the labor costs to conduct the quarterly sensory inspections for Option 1 at proposal and have included those cost estimates in the final analysis.

We did not incorporate other suggested changes from the commenters in the final impacts analysis. One suggestion was to incorporate costs for identifying the specific source of the leak. However, with the changes noted above regarding the monitoring of individual heat exchangers, *i.e.,* conducting three samples per quarterly event at heat exchanger exits rather than one sample at a manifolded location, we assumed that no additional cost would be associated with finding the specific leaking heat exchanger because the leak will be easier to locate based on HAP concentrations in the samples taken at different locations. Other suggested changes were to include costs for ''water sampling,'' monitoring both inlet and outlet locations, and conducting sampling in triplicate. We did not include costs for these activities because they are not required under either Option 1 or Option 2. An owner or operator may elect to conduct monitoring in accordance with 40 CFR 63.104(b) of the HON, which does require sampling at the inlet and outlet of each heat exchange system and in triplicate, but we did not include costs for compliance with these procedures because we do not expect many facilities to choose to comply with this option. Similarly, facilities that choose to conduct water sampling to meet the surrogate indicator monitoring under Option 2 could incur additional lab analysis costs and would perhaps choose to take two or three samples; however it is not required by the rule.

8. Equipment Leaks

Comment: One commenter requested that the rule allow use of Method 21 as an option to confirm that AVO indication of a leak is or is not actually a leak, *i.e.,* less than 10,000 ppmv, as is consistent with HON. Another commenter asked that Method 21 inspections be allowed in lieu of sensory inspections.

Response: The final rule allows Method 21 inspections in lieu of sensory inspections. This alternative is equivalent to the method in the proposed rule at detecting organic HAP leaks. The leak definition in the final rule for Method 21 is set at 500 ppmv, the most stringent level used in any Federal LDAR program.

D. Initial Compliance Demonstrations

Comment: Three commenters requested that sources be allowed to demonstrate initial compliance using

design evaluations (or a combination of design evaluation, engineering calculation, or information from the equipment supplier) as an alternative to performance testing for any control device and any type of HAP, not just under the conditions where it is already allowed in the MON and 40 CFR part 63, subpart SS. One commenter also stated that sources should be allowed to designate vents as having a TRE <1.0 and allow engineering estimates as an alternative to testing in all cases (rather than requiring testing when estimating procedures result in a TRE between 1.0 and 4.0). These commenters stated that this would be a way to reduce burden and costs while having little impact on emissions reductions, and they pointed out that, in some cases, testing is impossible (*e.g.,* at the inlet to sintered metal filters that are used to control particulate emissions from storage bins). One commenter added that some problems that area sources with limited testing experience are likely to encounter include the need to modify sampling methods, the lack of inlet sampling ports and the lack of a location that will allow ports to meet EPA Method 1 location requirements, and difficulty sampling inlet streams due to toxicity or flammability of the gas.

Response: Performance tests provide the greatest assurance that required control levels are being achieved. However, they can be costly (>$20,000 per test). Design evaluations based on engineering principles are allowed in the MON and other MACT rules for small control devices primarily due to cost considerations and the limited emission potential from small control devices. Considering the cost of testing and the fact that overall emissions from area sources are much lower than emissions from major sources, we do not think a requirement for testing at area sources is justified. Therefore, the final rule specifies that design evaluations may be used to demonstrate initial compliance with any organic HAP emission limits, hydrogen halide and halogen HAP emission limits for scrubbers associated with combustion controls for halogenated vent streams, and metal HAP emission limits.

The final rule also does not require compliance with the referenced requirements in § 63.115(d)(1)(ii) that specify the owner or operator must either perform measurements to verify that the TRE determined using an engineering assessment is really between 1 and 4 or consider the TRE to be <1; thus, an engineering assessment is sufficient to determine the TRE in this range.

E. Monitoring Requirements

Comment: Several commenters urged EPA to specify that the proposed PS–17 and EPA Quality Assurance Procedure 4 do not apply to chemical manufacturing area sources because the burden and cost of these requirements is significant. Another commenter stated that the costs for complying with the proposed PS–17 and EPA Quality Assurance Procedure 4 need to be considered in the impacts analysis if they are to apply to chemical manufacturing area sources. One commenter noted that sophisticated instrumentation systems, centralized computer data systems, and on-site instrumentation specialists would be needed to comply with the proposed PS–17 and EPA Quality Assurance Procedure 4 requirements.

Response: PS–17 and EPA Quality Assurance Procedure 4 have not been finalized. As one commenter pointed out, these requirements go beyond existing MACT and NSPS standards, area sources in the categories being regulated today do not generally comply with these procedures, and the costs to comply with PS–17 and EPA Quality Assurance Procedure 4 are not reasonable. For these reasons, PS–17 and EPA Quality Assurance Procedure 4 do not apply to affected sources under 40 CFR part 63, subpart VVVVVV.

F. Recordkeeping and Reporting

Comment: Two commenters stated that imposing almost all 40 CFR part 63 General Provisions is overly burdensome and unjustified, because area sources have limited technical expertise and staff resources and small emission potential compared to major sources. For example, one commenter indicated that the ''negative'' records required by 40 CFR 63.1(b)(3) and 40 CFR 63.10(b)(3) should be indicated as ''No'' in Table 4; the performance testing and monitoring provisions in 40 CFR part 63, subpart SS should supersede 40 CFR 63.7 and 40 CFR 63.8; and only the 40 CFR part 63 General Provisions, not the 40 CFR part 60 General Provisions, should apply.

Response: In consideration of these comments, we have reviewed the General Provisions and made a few minor changes to Table 9 of the final rule with respect to recordkeeping and reporting requirements (Applicability of General Provisions to Subpart VVVVVV). We determined that 40 CFR 63.7(a)(2) does not apply because the rule references the procedures in 40 CFR part 63, subpart SS for certain control device compliance requirements, and 40 CFR 63.997(c)(1) of subpart SS contains performance testing schedule requirements that are comparable, although slightly more descriptive, than the schedule requirements in 40 CFR 63.7(a)(2). To ensure that area sources do not have to comply with PS–17 and EPA Quality Assurance Procedure 4 when they are finalized, we determined that 40 CFR 63.8(a)(2) does not apply. We also specify in Table 9 that references to SSM in the General Provisions requirements for recordkeeping and reporting do not apply. Finally, we determined that the notification of changes to information already provided that is required by 40 CFR 63.9(j) does not apply because it is redundant with 40 CFR 63.11501(d)(4) of the final rule, which specifies that notifications of process changes that affect a compliance determination, result in a new compliance determination, or change the method of compliance must be reported in the semi-annual compliance reports.

In addition to the changes in Table 9, we also added a statement in 40 CFR 63.11501(a) of the final rule to clarify that an affected source must only comply with those Part 63 General Provisions as specified in 40 CFR Table 9. The General Provisions in other Parts, such as Part 60, do not apply except to the extent that a source is subject to an overlapping requirement, and that requirement calls for compliance with the General Provisions of another part.

G. Requirements During Periods of Startup, Shutdown, and Malfunction (SSM)

Comment: Several commenters suggested changes to simplify and reduce the burden of SSM requirements. One commenter stated that no special reporting should be required after an SSM event if the SSM plan was followed, and sources should not have to submit revised plans if the plan is modified in a timely fashion. One commenter recommended that 40 CFR part 63, subpart VVVVVV explicitly state that emission limits and control requirements do not apply during SSM periods. Three commenters stated that facilities subject only to management practice requirements should not be required to develop an SSM plan because no purpose is served by requiring an SSM plan for anything that does not impact required controls.

One commenter stated EPA should simplify SSM reporting requirements by: (1) Waiving immediate reporting as required by 40 CFR 63.10(d)(5); (2) requiring the information required by 40 CFR 63.10(d)(5) to be recorded and maintained onsite and submitted in the periodic report; (3) requiring SSM

reporting only if excess emissions occurred and they did not follow their SSM plan; and (4) allowing SSM reporting to be consolidated with semiannual compliance reports.

One commenter stated that Table 4 should indicate that the immediate reporting requirements and separate SSM reports required in 40 CFR 63.6(e)(3)(iii) and (iv) do not apply to 40 CFR part 63, subpart VVVVVV, and that failure to follow the SSM plan during an event where there are excess emissions should be reported in the deviation report. This commenter also requested that EPA use time and labor rate assumptions provided by the commenter in revised burden estimates related to SSM plans.

This same commenter stated that EPA developed the emission limitations and work practices in the proposed rule without considering any emission data during SSM of control or process equipment. As such, the EPA cannot legally impose the emission limitations required during normal operations on sources during periods of SSM. The commenter points out that EPA may set a standard based on GACT or management practices, and management practices is the most appropriate requirement for SSM. The commenter suggests provisions of the HON be used as a model for SSM management practices. The commenter also requested that EPA clarify that area sources may take all actions necessary to ensure that sources operate safely at all times, including during SSM events, by including language similar to that in the MON in regards to opening a safety device.

Another commenter also submitted comments in response to the court decision on SSM issues. The commenter submitted additional compliance options that would show compliance at all times, including periods of SSM because, according to the commenter, these periods are not steady state conditions and, therefore, operating parameter limits determined through performance testing or engineering evaluations would not be indicative of those periods. The commenter stated that SSM provisions should still be included in the final rulemaking for area sources. Alternatives suggested by the commenter include demonstration of compliance of emission limit using a long term rolling average; conduct performance testing for periods of startup and shutdown; allow use of storage tank when control device is not operational if tank is not filled and has a tight fitting cover; run no new batches until malfunction is over; and ensure that the control device is at normal operating conditions before the process is started.

Response: Table 9 to the final rule (Table 4 to the proposed rule) contains references to the 40 CFR part 63 General Provisions and lists the applicability of the General Provisions to the sources subject to the rule. As explained above, in *Sierra Club* v. *EPA, 551 F.3d 1019,* the Court vacated 40 CFR 63.6(f)(1) and 63.6(h)(1). In light of this court decision, we revised Table 9 to state that 40 CFR 63.6(f)(1) and (h)(1) do not apply. Table 9 also states that the requirements for SSM plans and reports in 40 CFR 63.6(e)(3) and 40 CFR 63.10(d)(5) do not apply. The final emission standards summarized in section IV above apply at all times. As noted in sections III and IV above, we are establishing a separate emission standard for periods of startup and shutdown for continuous process vents for the nine source categories at issue here, because these periods are characterized by activities, such as the filling of vessels and the inerting of vessels, and these activities generally result in significantly different emissions than normal operations. See *Sierra Club, 551 F.3d at 1027* (recognizing that the CAA does not require EPA to set a single emission standard under CAA section 112(d) that applies during all operating periods).

Some commenters complain that EPA failed to consider emissions data during startup and shutdown, and that EPA should set different standards for these periods. EPA is limited to the emissions information before it, which, of course, includes any information provided by the commenters. In this case, EPA carefully analyzed all of the emissions information before it, including that provided by commenters, and concluded that only continuous vents presented a situation where a separate standard during startup and shutdown was appropriate. Although EPA recognizes that startup and shutdown events associated with a continuous process can impact the quantity of wastewater sent to the wastewater system, these events do not warrant a separate standard for wastewater systems. The final GACT standards for wastewater systems appropriately control HAP emissions, and the commenters have not provided any data or other information that would justify a separate standard for wastewater systems. Contrary to the commenters' assertion, for batch processing, startup and shutdown are considered part of normal operations. Storage tanks, heat exchange systems, and transfer operations also do not undergo startup and shutdown activities.

Consistent with *Sierra Club* v. *EPA,* EPA has established CAA section 112(d) compliant standards in this rule that apply continuously. The standards, as described above, apply at all times. In establishing the standards in this rule, EPA has taken into account startup and shutdown periods and has established different standards for such periods where appropriate. Periods of start-up, normal operations, and shut-down are all predictable and routine aspects of a source's operations. Batch processes start up and shutdown as part of their routine process and continuous process operations undergo startups and shutdowns for a variety of reasons, including changes in product demand or product line, and upgrading of equipment. By contrast, a malfunction is defined as a ''sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner * * *'' 40 CFR 63.2. EPA has properly accounted for different periods of operation in establishing the standards in this rule. EPA does not view malfunctions as a distinct operating mode and, therefore, any emissions that occur at such times do not need to be factored into development of CAA section 112(d) standards, which, once promulgated, apply at all times. Thus, EPA is not setting separate standards for malfunctions in this rule, as the commenters requested.

Further, even if malfunctions were considered a distinct operating mode, we believe it would be impracticable to take into account malfunctions in setting CAA section 112(d) standards. Because, by definition, malfunctions are sudden and unexpected events, it would be difficult to set a standard that would account for the myriad of different emissions that could occur during malfunctions. In addition, the type, frequency, and duration of the malfunctions may differ significantly between sources. Furthermore, emissions during malfunctions can substantially exceed the level of emissions during start-up, shut-down, and normal operations. Finally, setting an emissions standard that accounts for all different types of malfunctions could allow a source to emit excessive quantities of uncontrolled pollution.

Commenters raised a concern that certain malfunctions necessitate the opening of a safety device to avoid damage to equipment or injury to personnel working at the site. EPA shares the commenters' concerns that plants must be operated safely and that

plant operators should run their facilities in a safe manner.

H. Title V Permitting

As discussed above in section III.F, we are not finalizing the exemption from title V requirements for those sources that became area sources by installing emission controls. We maintain, as explained below in this response to significant comments, that we properly applied the test for determining whether title V is unnecessarily burdensome on the other sources subject to this NESHAP and we are finalizing that exemption in this rulemaking.

Comment: One commenter argued that the Agency's proposal to exempt the nine area source categories from title V requirements is unlawful and arbitrary. The commenter states that section 502(a) of the CAA authorizes EPA to exempt area source categories from title V permitting requirements if the Administrator finds that compliance with such requirements is ''impracticable, infeasible or unnecessarily burdensome.'' 42 U.S.C. § 7661a(a). The commenter notes that EPA did not claim that title V requirements are impracticable or infeasible for any of the source categories it proposes to exempt, but that EPA instead relied entirely on its claim that title V would be ''unnecessarily burdensome.''

Response: We have reconsidered our proposed exemption for major sources that installed controls to become area sources after 1990. Based on our additional review of the source categories since proposal, we conclude that exemption for these synthetic area sources is not appropriate as discussed above in section III.F. We are finalizing the exemption for synthetic area sources that took operational limits and for natural minor sources.

Section 502(a) of the CAA states, in relevant part, that:

> * * * [t]he Administrator may, in the Administrator's discretion and consistent with the applicable provisions of this chapter, promulgate regulations to exempt one or more source categories (in whole or in part) from the requirements of this subsection if the Administrator finds that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome on such categories, except that the Administrator may not exempt any major source from such regulations.

See 42 U.S.C. 7661a(a).

The statute plainly vests the Administrator with discretion to determine when it is appropriate to exempt non-major (*i.e.,* area) sources of air pollution from the requirements of title V. The commenter correctly notes that EPA based the proposed exemptions solely on a determination that title V is ''unnecessarily burdensome,'' and did not rely on whether the requirements of title V are ''impracticable'' or ''infeasible'', which are alternative bases for exempting area sources from title V.

To the extent the commenter is asserting that EPA must determine that all three criteria in CAA section 502 are met before an area source category can be exempted from title V, the commenter misreads the statute. The statute expressly provides that EPA may exempt an area source category from title V requirements if EPA determines that the requirements are ''impracticable, infeasible *or* unnecessarily burdensome.'' See CAA section 502 (*emphasis added*). If Congress had wanted to require that all three criteria be met before a category could be exempted from title V, it would have stated so by using the word ''and,'' in place of ''or.''

Comment: One commenter stated that in order to demonstrate that compliance with title V would be ''unnecessarily burdensome,'' EPA must show, among other things, that the ''burden'' of compliance is *unnecessary.* According to the commenter, by promulgating title V, Congress indicated that it viewed the burden imposed by its requirements as necessary, as a general rule. The commenter maintained that the title V requirements provide many benefits that Congress viewed as necessary. Thus, in the commenter's view, EPA must show why, for any given category, special circumstances make compliance unnecessary. The commenter believed that EPA has not made that showing for any of the categories it proposes to exempt.

Response: EPA does not agree with the commenter's characterization of the demonstration required for determining that title V is unnecessarily burdensome for an area source category. As stated above, the CAA provides the Administrator discretion to exempt an area source category from title V if he determines that compliance with title V requirements is ''impracticable, infeasible, or unnecessarily burdensome'' on an area source category. See CAA section 502(a). In December 2005, in a national rulemaking, EPA interpreted the term ''unnecessarily burdensome'' in CAA section 502 and developed a four-factor balancing test for determining whether title V is unnecessarily burdensome for a particular area source category, such that an exemption from title V is appropriate. See 70 FR 75320, December 19, 2005 (''Exemption Rule''). In addition to interpreting the term ''unnecessarily burdensome'' and developing the four-factor balancing test in the Exemption Rule, EPA applied the test to certain area source categories.

The four factors that EPA identified in the Exemption Rule for determining whether title V is unnecessarily burdensome on a particular area source category include: (1) Whether title V would result in significant improvements to the compliance requirements, including monitoring, recordkeeping, and reporting, that are proposed for an area source category (70 FR 75323); (2) whether title V permitting would impose significant burdens on the area source category, and whether the burdens would be aggravated by any difficulty the sources may have in obtaining assistance from permitting agencies (70 FR 75324); (3) whether the costs of title V permitting for the area source category would be justified, taking into consideration any potential gains in compliance likely to occur for such sources (70 FR 75325); and (4) whether there are implementation and enforcement programs in place that are sufficient to assure compliance with the NESHAP for the area source category, without relying on title V permits (70 FR 75326).[10]

In discussing the above factors in the Exemption Rule, we explained that we considered on ''a case-by-case basis the extent to which one or more of the four factors supported title V exemptions for a given source category, and then we assessed whether considered together those factors demonstrated that compliance with title V requirements would be 'unnecessarily burdensome' on the category, consistent with section 502(a) of the Act.'' See 70 FR 75323. Thus, we concluded that not all of the four factors must weigh in favor of exemption for EPA to determine that title V is unnecessarily burdensome for a particular area source category. Instead, the factors are to be considered in combination and EPA determines whether the factors, taken together,

[10] In the Exemption Rule, in addition to determining whether compliance with title V requirements would be unnecessarily burdensome on an area source category, we considered, consistent with the guidance provided by the legislative history of CAA section 502(a), whether exempting the area source category would adversely affect public health, welfare, or the environment. See 70 FR 75326, December 19, 2005. As shown above, after conducting the four-factor balancing test and determining that title V requirements would be unnecessarily burdensome on the area source categories at issue here, we examined whether the exemption from title V would adversely affect public health, welfare, and the environment, and found that it would not.

support an exemption from title V for a particular source category.

The commenter asserts that ''EPA must show * * * that the ''burden'' of compliance is unnecessary.'' This is not, however, one of the four factors that we developed in the Exemption Rule in interpreting the term ''unnecessarily burdensome'' in CAA section 502, but rather a new test that the commenter maintains EPA ''must'' meet in determining what is ''unnecessarily burdensome'' under CAA section 502. EPA did not re-open its interpretation of the term ''unnecessarily burdensome'' in CAA section 502 in the October 6, 2008 proposed rule for the categories at issue in this rule. Rather, we applied the four-factor balancing test articulated in the Exemption Rule to the source categories for which we proposed title V exemptions. Had we sought to re-open our interpretation of the term ''unnecessarily burdensome'' in CAA section 502 and modify it from what was articulated in the Exemption Rule, we would have stated so in the October 6, 2008, proposed rule and solicited comments on a revised interpretation, which we did not do. Accordingly, we reject the commenter's attempt to create a new test for determining what constitutes ''unnecessarily burdensome'' under CAA section 502, as that issue falls outside the purview of this rulemaking.[11]

Furthermore, we believe that the commenter's position that ''EPA must show * * * that the ''burden'' of compliance is *unnecessary''* is unreasonable and contrary to Congressional intent concerning the applicability of title V to area sources. Congress intended to treat area sources differently under title V, as it expressly authorized the EPA Administrator to exempt such sources from the requirements of title V at her discretion. There are several instances throughout the CAA where Congress chose to treat major sources differently than non-major sources, as it did in CAA section 502. In addition, it is worth noting that, although the commenter espouses a new interpretation of the term ''unnecessarily burdensome'' in CAA section 502 and attempts to create a new test for determining whether the requirements of title V are ''unnecessarily burdensome'' for an area source category, the commenter does not explain why EPA's interpretation of the term ''unnecessarily burdensome'' is arbitrary, capricious, or otherwise not in accordance with law. We maintain that our interpretation of the term ''unnecessarily burdensome'' in CAA section 502, as set forth in the Exemption Rule, is reasonable.

Comment: One commenter stated that exempting a source category from title V permitting requirements deprives both the public generally and individual members of the public who would obtain and use permitting information for the benefit of citizen oversight and enforcement that Congress plainly viewed as necessary. According to the commenter, the text and legislative history of the CAA provide that Congress intended ordinary citizens to be able to get emissions and compliance information about air toxics sources and to be able to use that information in enforcement actions and in public policy decisions on a State and local level. The commenter stated that Congress did not think that enforcement by States or other government entities was enough; if it had, Congress would not have enacted the citizen suit provisions, and the legislative history of the CAA would not show that Congress viewed citizens' access to information and ability to enforce CAA requirements as highly important both as an individual right and as a crucial means to ensuring compliance. According to the commenter, if a source does not have a title V permit, it is difficult or impossible—depending on the laws, regulations, and practices of the State in which the source operates—for a member of the public to obtain relevant information about its emissions and compliance status. The commenter stated that, likewise, it is difficult or impossible for citizens to bring enforcement actions. The commenter continued that EPA does not claim—far less demonstrate with substantial evidence, as would be required—that citizens would have the same ability to obtain compliance and emissions information about sources in the categories it proposes to exempt *without* title V permits. The commenter also said that, likewise, EPA does not claim—far less demonstrate with substantial evidence — that citizens would have the same enforcement ability. Thus, according to the commenter, the exemptions EPA proposes plainly eliminate benefits that Congress thought necessary. The commenter claimed that, to justify its exemptions, EPA would have to show that the informational and enforcement benefits that Congress intended title V to confer—benefits which the commenter argues are eliminated by the exemptions—are for some reason unnecessary with respect to the categories it proposes to exempt. The commenter concluded that EPA does not even *acknowledge* these benefits of title V, far less explain why they are unnecessary, and that for this reason alone, EPA's proposed exemptions are unlawful and arbitrary.

Response: Once again, the commenter attempts to create a new test for determining whether the requirements of title V are ''unnecessarily burdensome'' on an area source category. Specifically, the commenter argues that EPA does not claim or demonstrate with *substantial evidence* that citizens would have the same access to information and the same ability to enforce under these NESHAP, absent title V. The commenter's position represents a significant revision of the fourth factor that EPA developed in the Exemption Rule in interpreting the term ''unnecessarily burdensome'' in CAA section 502. For all of the reasons explained above, the commenter's attempt to create a new test for EPA to meet in determining whether title V is ''unnecessarily burdensome'' on an area source category cannot be sustained. This rulemaking did not re-open EPA's interpretation of the term ''unnecessarily burdensome'' in CAA section 502. In any event, EPA interpretation is reasonable. Furthermore, the commenter's statements do not demonstrate a flaw in EPA's application of the four-factor balancing test to the specific facts of the sources we are exempting, nor do the comments provide a basis for the Agency to reconsider the exemption as we are finalizing it.

EPA reasonably applied the four factors to the facts of the nine source categories at issue in this rule, and the commenter has not identified any flaw in EPA's application of the four-factor test to the nine area source categories at issue here.

Moreover, as explained in the proposal, we considered implementation and enforcement issues in the fourth factor of the four-factor balancing test. Specifically, the fourth factor of EPA's unnecessarily burdensome analysis provides that EPA will consider whether there are implementation and enforcement programs in place that are sufficient to assure compliance with the NESHAP without relying on title V permits. See 70 FR 75326.

In applying the fourth factor here, EPA determined that there are adequate enforcement programs in place to assure compliance with the CAA. As stated in

[11] If the commenter objected to our interpretation of the term ''unnecessarily burdensome'' in the Exemption Rule, it should have commented on, and challenged, that rule. Any challenge to the Exemption Rule is now time barred by CAA section 307(b). Although we received comments on the title V Exemption Rule during the rulemaking process, no one sought judicial review of that rule.

the proposal, we believe that state-delegated programs are sufficient to assure compliance with the NESHAP and that EPA retains authority to enforce this NESHAP under the CAA. 73 FR 58373. We also indicated that States and EPA often conduct voluntary compliance assistance, outreach, and education programs to assist sources, and that these additional programs will supplement and enhance the success of compliance with this NESHAP. 73 FR 58373. The commenter does not challenge the conclusion that there are adequate State and Federal programs in place to ensure compliance with and enforcement of the NESHAP. Instead, the commenter provides an unsubstantiated assertion that information about compliance by the area sources with these NESHAP will not be as accessible to the public as information provided to a State pursuant to title V. In fact, the commenter does not provide any information that States will treat information submitted under these NESHAP differently than information submitted pursuant to a title V permit.

Even accepting the commenter's assertions that it is more difficult for citizens to enforce the NESHAP absent a title V permit, in evaluating the fourth factor in EPA's balancing test, EPA concluded that there are adequate implementation and enforcement programs in place to enforce the NESHAP. The commenter has provided no information to the contrary or explained how the absence of title V actually impairs the ability of citizens to enforce the provisions of the NESHAP. Furthermore, the fourth factor is one factor that we evaluated in determining if the title V requirements were unnecessarily burdensome. As explained above, we considered that factor together with the other factors and determined that it was appropriate to finalize the proposed exemptions for natural area sources and synthetic area sources that took operational limits in the source categories at issue in this rule, but we are not finalizing the title V exemption for sources that became synthetic area sources through the use of add-on controls for the reasons set forth above in section III.F.

Comment: One commenter explained that title V provides important monitoring benefits, and, according to the commenter, EPA assumes that title V monitoring would not add any monitoring requirements beyond those required by the regulations for each category. The commenter said that, in its proposal, EPA proposed to require ''management practices, which are practices that are currently used at most facilities, for most subcategories (73 FR 58372).'' The commenter further states that ''EPA argues that its proposed standard, including these practices, 'provides monitoring in the form of recordkeeping that will assure compliance with the requirements of the proposed rule.' '' Id. The commenter maintains that EPA made conclusory assertions and that the Agency failed to provide any evidence to demonstrate that the proposed monitoring requirements will assure compliance with the NESHAP for the exempt sources. The commenter stated that, for this reason, as well, its claim that title V requirements are ''unnecessarily burdensome'' is arbitrary and capricious, and its exemption is unlawful and arbitrary and capricious.

Response: As noted in the earlier comment, EPA used the four-factor test to determine if title V requirements were unnecessarily burdensome. In the first factor, EPA considers whether imposition of title V requirements would result in significant improvements to the compliance requirements that are proposed for the area source categories. See 70 FR 75323. It is in the context of this first factor that EPA evaluates the monitoring, recordkeeping, and reporting requirements of the proposed NESHAP to determine the extent to which those requirements are consistent with the requirements of title V. See 70 FR 75323.

The commenter asserts that ''EPA argues that its proposed standard, including these practices, 'provides monitoring in the form of recordkeeping that will assure compliance with the requirements of the proposed rule.' '' The commenter has taken a phrase from the preamble out of context to imply that EPA has only required monitoring in the form of recordkeeping. In the proposal, we stated:

> The proposed rule requires implementation of certain management practices, which are practices that are currently used at most facilities, for most subcategories, and add on controls and other requirements, in addition to management practices for other subcategories of sources. The proposed rule requires direct monitoring of emissions or control device parameters, both continuous and periodic, recordkeeping that also may serve as monitoring, and deviation and other semi-annual reporting to assure compliance with these requirements.
>
> The monitoring component of the first factor favors title V exemption. For the management practices, this proposed standard provides monitoring in the form of recordkeeping that would assure compliance with the requirements of the proposed rule. Monitoring by means other than recordkeeping for the management practices is not practical or appropriate. Records are required to ensure that the management practices are followed. The proposed rule requires the owner or operator to record the date and results of inspections, as well as any actions taken in response to findings of the inspections. The records are required to be maintained as checklists, logbooks and/or inspection forms. The rule also requires emission limit requirements for some subcategories. Monitoring of control device or recovery device operating parameters using CPMS or periodic monitoring is required to assure compliance with these emission limits.

See 73 FR 58372.

We nowhere state or imply that the only monitoring required for the rule is in the form of recordkeeping. As the above excerpt states, we required continuous and periodic direct monitoring of emission control devices and recovery devices when the rule requires the installation of such controls in addition to the recordkeeping that serves as monitoring for the management practices. The commenter does not provide any evidence that contradicts the conclusion that the proposed monitoring requirements are sufficient to assure compliance with the standards in the rule.

Based on the foregoing, we considered whether title V monitoring requirements would lead to significant improvements in the monitoring requirements in the proposed NESHAP and determined that they would not. We believe that the monitoring, recordkeeping, and reporting requirements in this area source rule can assure compliance for those sources we are exempting.

For the reasons described above and in the proposed rule, the first factor supports an exemption. Assuming, for arguments sake, that the first factor alone cannot support the exemption, the four-factor balancing test requires EPA to examine the factors, in combination, and determine whether the factors, viewed together, weigh in favor of exemption. See 70 FR 75326. As explained above, we determined that the factors, weighed together, support title V exemption for the natural area sources and synthetic area sources that took operational limits in these source categories.

Comment: One commenter believes EPA argued that its own belief that title V is a ''significant burden'' on area sources further justifies its exemption (73 FR 58372–58373). According to the commenter, regardless of whether EPA regards the burden as ''significant,'' the Agency may not exempt a category from compliance with title V requirements unless compliance is ''unnecessarily burdensome.'' The commenter stated that, in any event, EPA's claims about

the alleged significance of the burden of compliance is entirely conclusory and could be applied equally to any major or area source category. The commenter also stated that the Agency does not show that the compliance burden is especially great for any of the sources it proposes to exempt, and, thus, does not demonstrate that the alleged burden necessitates treating them differently from other categories by exempting them from compliance with title V requirements.

Response: The commenter appears to take issue with the formulation of the second factor of the four-factor balancing test. Specifically, the commenter states that EPA must determine that title V compliance is ''unnecessarily burdensome'' and not a ''significant burden,'' as expressed in the second factor of the four-factor balancing test.

As we have stated before, at proposal we found the burden placed on these sources in complying with the title V requirements is significant when we applied the four-factor balancing test.[12] We note that the commenter in other parts of its comments on the title V exemptions argues that EPA must demonstrate that every title V requirement is ''unnecessary'' for a particular source category before an exemption can be granted, but makes no mention of the ''burden'' of those requirements on area sources, but here the commenter argues that ''significant burden'' is not appropriate for the second factor. Notwithstanding the commenter's inconsistency, as explained above, the four-factor balancing test was established in the Exemption Rule and we did not re-open EPA's interpretation of the term ''unnecessarily burdensome'' in this rule. As explained above, we maintain that the Agency's interpretation of the term ''unnecessarily burdensome,'' as set forth in the Exemption Rule and reiterated in the proposal to this rule, is reasonable.

Contrary to the commenter's assertions, we properly analyzed the second factor of the four-factor balancing test. See 70 FR 75320. Under that factor, EPA considers whether title V permitting would impose a significant burden on the area source categories, and whether that burden would be aggravated by any difficulty that the sources may have in obtaining assistance from the permitting agencies. See 70 FR 75324. The commenter appears to assert that the second factor *must* be satisfied for EPA to exempt an area source category from title V, but, as explained above, the four factors are considered in combination. We have concluded that the second factor, in combination with the other factors, supports an exemption for the chemical manufacturing area sources that we are exempting from compliance with title V in this final rule.

Therefore, we disagree with the commenter's assertion that EPA's finding (*i.e.,* that the burden of obtaining a title V permit is significant, does not equate to the required finding that the burden is unnecessary) is misplaced. While EPA could have found that the second factor alone could justify the exemption for the sources we are exempting in this rule, EPA found that the other three factors also support exempting these sources from the title V requirements because the permitting requirements are unnecessarily burdensome for the chemical manufacturing area sources we are exempting.

Comment: According to one commenter, EPA argued that compliance with title V would not yield any gains in compliance with underlying requirements in the relevant NESHAP (73 FR 58373). The commenter stated that EPA's conclusory claim could be made equally with respect to any major or area source category. According to the commenter, the Agency provides no specific reasons to believe—with respect to any of the categories it proposes to exempt—that the additional informational, monitoring, reporting, certification, and enforcement requirements that exist in title V, but not in these NESHAP, would not provide additional compliance benefits. The commenter also stated that the only basis for EPA's claim is, apparently, its beliefs that those additional requirements never confer additional compliance benefits. According to the commenter, by advancing such argument, EPA merely seeks to elevate its own policy judgment over Congress' decisions reflected in the CAA's text and legislative history.

Response: The commenter mischaracterizes the first and third factors of the four-factor balancing test and takes out of context certain statements in the proposed rule concerning the factors used in the balancing test to determine if imposition of title V permit requirements is unnecessarily burdensome for the source categories. The commenter also mischaracterizes the first factor of the four-factor balancing test with regard to determining whether imposition of title V would result in significant improvements in compliance. In addition, the commenter mischaracterizes the analysis in the third factor of the balancing test which instructs EPA to take into account any gains in compliance that would result from the imposition of the title V requirements.

First, EPA nowhere states, nor does it believe, that title V never confers additional compliance benefits as the commenter asserts. In fact, our decision to not exempt synthetic area sources that installed add-on controls was based, in part, on our determination that the additional public participation and oversight attendant to title V permitting was appropriate for those sources. While EPA recognizes that requiring a title V permit offers additional compliance options, the statute provides EPA with the discretion to evaluate whether compliance with title V would be unnecessarily burdensome to specific area sources. For the sources we are exempting, we conclude that requiring title V permits would be unnecessarily burdensome.

Second, the commenter mischaracterizes the first factor by asserting that EPA must demonstrate that title V will provide no additional compliance benefits. The first factor calls for a consideration of ''whether title V would result in significant improvements to the compliance requirements, including monitoring, recordkeeping, and reporting, that are proposed for an area source category.'' Thus, contrary to the commenter's assertion, the inquiry under the first factor is not whether title V will provide any compliance benefit, but rather whether it will provide significant improvements in compliance requirements.

The monitoring, recordkeeping and reporting requirements in the rule are sufficient to assure compliance with the requirements of this rule for the sources we are exempting, consistent with the goal in title V permitting. For example, in the Notification of Compliance Status report, the source must certify that it has implemented management practices, and, if necessary, installed controls and established monitoring parameters. See 40 CFR 63.11501 in the final rule. The source must also submit deviation reports to the permitting agency every 6 months if there has been a deviation in the requirements of the rule. See 40 CFR 63.11501 in the final rule. The requirements in the final rule provide sufficient basis to assure compliance,

[12] As discussed in Section III above, since proposal, we have reconsidered the proposed exemption for synthetic area sources that became area sources by virtue of installing add-on controls and determined that these sources are generally larger and more sophisticated sources and, that for these and other reasons, the burden on these sources would not be significant.

and EPA does not believe that the title V requirements, if applicable to the sources that we are exempting, would offer significant improvements in the compliance of the sources with the rule.

Third, the commenter incorrectly characterizes our statements in the proposed rule concerning our application of the third factor. Under the third factor, EPA evaluates ''whether the costs of title V permitting for the area source category would be justified, taking into consideration any potential gains in compliance likely to occur for such sources.'' Contrary to what the commenter alleges, EPA did not state in the proposed rule that compliance with title V would not yield any gains in compliance with the underlying requirements in the relevant NESHAP, nor does factor three require such a determination.

Instead, consistent with the third factor, we considered whether the costs of title V are justified in light of any potential gains in compliance. In other words, EPA considers the costs of title V permitting requirements, including consideration of any improvement in compliance above what the rule requires. In considering the third factor, we stated, in part, that, ''[b]ecause the costs, both economic and non-economic, of compliance with title V are high, and the potential for gains in compliance is low, title V permitting is not justified for this source category. Accordingly, the third factor supports title V exemptions for these area source categories.'' See 73 FR 58373.

Most importantly, EPA considered all four factors in the balancing test in determining whether title V was unnecessarily burdensome on the area source categories we are exempting from title V in this final rule. As stated above, we have determined that title V is appropriate for synthetic area sources that installed add-on controls and we are not finalizing the exemption for those sources. As to the remaining sources, the commenter's statements do not demonstrate a flaw in EPA's application of the four-factor balancing test to the specific facts of the sources we are exempting, nor do the comments provide sufficient basis for the Agency to reconsider its proposal to exempt the natural area sources and synthetic area sources that took operational limits to maintain HAP below major source levels.

Comment: According to one commenter, EPA argued that alternative State implementation and enforcement programs assure compliance with the underlying NESHAP without relying on title V permits (73 FR 58373). The commenter stated that again, EPA's claim is entirely conclusory and generic. The commenter also stated that ''the Agency does not identify any aspect of any of the underlying NESHAP showing that with respect to these specific NESHAP—*unlike all the other major and area source NESHAP it has issued without title V exemptions*—title V compliance is unnecessary'' (e*mphasis added*). Instead, according to the commenter, EPA merely pointed to existing State requirements and the potential for actions by States and EPA that are generally applicable to all categories (along with some small business and voluntary programs). The commenter said that, absent a showing by EPA that distinguishes the sources it proposes to exempt from other sources, the Agency's argument boils down to the generic and conclusory claim that it generally views title V requirements as unnecessary. The commenter stated that, while this may be EPA's view, it was not Congress' view when Congress enacted title V, and a general view that title V is unnecessary, does not suffice to show that title V compliance is unnecessarily burdensome.

Response: Contrary to the commenters' assertions, EPA does believe that title V is appropriate under certain circumstances. Indeed, we are not finalizing the title V exemption for synthetic area sources that became area sources by virtue of installing add-on controls. However, given the facts associated with the remainder of the sources in the categories, we think that exemption from title V is appropriate for those sources.

In this comment, the commenter again takes issue with the Agency's test for determining whether title V is unnecessarily burdensome, as developed in the Exemption Rule. Our interpretation of the term ''unnecessarily burdensome'' is not the subject of this rulemaking. In any event, as explained above, we believe the Agency's interpretation of the term ''unnecessarily burdensome'' is a reasonable one. To the extent the commenter asserts that our application of the fourth factor is flawed, we disagree. The fourth factor involves a determination as to whether there are implementation and enforcement programs in place that are sufficient to assure compliance with the rule without relying on the title V permits. In discussing the fourth factor in the proposal, EPA states that, prior to delegating implementation and enforcement to a State, EPA must ensure that the State has programs in place to enforce the rule. EPA believes that these programs will be sufficient to assure compliance with the rule. EPA also retains authority to enforce this NESHAP anytime under CAA sections 112, 113, and 114. EPA also noted other factors in the proposal that together are sufficient to assure compliance with this area source NESHAP.

The commenter argues that EPA cannot exempt any of the area sources in these categories from title V permitting requirements because ''[t]he agency does not identify any aspect of any of the underlying NESHAP showing that with respect to these specific NESHAP—*unlike all the other major and area source NESHAP it has issued without title V exemptions*—title V compliance is unnecessary'' (*emphasis added*). As an initial matter, EPA cannot exempt major sources from title V permitting. 42 U.S.C. 502(a). As for area sources, the standard that the commenter proposes—that EPA must show that ''title V compliance is unnecessary''—is not consistent with the standard the Agency established in the Exemption Rule and applied in the proposed rule in determining if title V requirements are unnecessarily burdensome.

Furthermore, we disagree that the basis for excluding the chemical manufacturing area sources we are exempting from title V requirements is generally applicable to sources in any source category. As explained in the proposal preamble and above, we balanced the four factors considering the facts and circumstances of the nine source categories at issue in this rule. For example, in assessing whether the costs of requiring the sources to obtain a title V permit was burdensome, we concluded that the high relative costs would not be justified given that there is likely to be little or no potential gain in compliance, particularly for sources that are required to comply only with the management practice requirements contained in the final rule. Almost all of the sources we are exempting from title V are required to comply only with management practices.

Comment: One commenter stated that, as EPA concedes, the legislative history of the CAA shows that Congress did not intend EPA to exempt source categories from compliance with title V unless doing so would not adversely affect public health, welfare, or the environment. Furthermore, the commenter stated that EPA conceded this point. See 73 FR 58373. Nonetheless, according to the commenter, EPA does not make any showing that its exemptions would not have adverse impacts on health, welfare, and the environment. The commenter stated that, instead, EPA offered only the conclusory assertion that ''the level

of control would remain the same'' whether title V permits are required or not (73 FR 58373). The commenter continued by stating that EPA relied entirely on the conclusory arguments advanced elsewhere in its proposal that compliance with title V would not yield additional compliance with the underlying NESHAP. The commenter stated that those arguments are wrong for the reasons given above, and, therefore, EPA's claims about public health, welfare, and the environment are wrong too. The commenter also stated that Congress enacted title V for a reason: To assure compliance with all applicable requirements and to empower citizens to get information and enforce the CAA. The commenter said that those benefits—of which EPA's proposed rule *deprives* the public—would improve compliance with the underlying standards and, thus, have benefits for public health, welfare, and the environment. According to the commenter, EPA has not demonstrated that these benefits are unnecessary with respect to any specific source category, but again, simply rests on its own apparent belief that they are never necessary. The commenter concluded, for the reasons given above, that the attempt to substitute EPA's judgment for Congress' is unlawful and arbitrary.

Response: Congress gave the Administrator the authority to exempt area sources from compliance with title V if, in his or her discretion, the Administrator ''finds that compliance with [title V] is impracticable, infeasible, or unnecessarily burdensome.'' See CAA section 502(a). EPA has interpreted one of the three justifications for exempting area sources, ''unnecessarily burdensome,'' as requiring consideration of the four factors discussed above. At proposal, EPA applied these four factors to the nine chemical manufacturing area source categories subject to this rule and concluded that requiring title V for these area source categories would be unnecessarily burdensome. We maintain that this conclusion is accurate for the sources we are exempting in this rule.

In addition to determining that title V would be unnecessarily burdensome on the area source categories for which we proposed exemptions, as in the Exemption Rule, EPA also considered, consistent with our interpretation of the legislative history, whether exempting the area source categories would adversely affect public health, welfare, or the environment. As explained in the proposal preamble, we concluded that exempting the area source categories at issue in this rule would not adversely affect public health, welfare, or the environment because the level of control would be the same even if title V applied. We further explained in the proposal preamble that the title V permit program does not generally impose new substantive air quality control requirements on sources, but instead requires that certain procedural measures be followed, particularly with respect to determining compliance with applicable requirements. The commenter has not provided any information to demonstrate that the exemption from title V that we are finalizing will adversely affect public health, welfare, or the environment.

VI. Impacts of the Final Area Source Standards

A. What are the air impacts?

We estimate that the final standard will reduce organic HAP emissions by 207 tpy and metal HAP by 41 tpy from the baseline level, for an overall HAP emission reduction of 248 tpy from the baseline. Table 1 of this preamble summarizes the estimated HAP reductions under the final standards for each type of emission point.

TABLE 1—ESTIMATED NATIONWIDE HAP EMISSION REDUCTIONS

Emission point	HAP emission reduction (tpy)	Urban HAP emission reduction (tpy)
Batch process vents	<43	13
Continuous process vents	<29	9
Metal HAP process vents	41	38
Storage tanks	5	5
Heat exchange systems	79	24
Transfer operations	1	0.2
Wastewater systems	51	16
Total	248	105

B. What are the cost impacts?

The total capital cost of the final standard is estimated at $2.8 million. The total annualized cost of the final standard, including the annualized cost of capital equipment, is estimated at $3.2 million/yr. Additional information on our impact estimates on the sources is available in the docket (See Docket Number EPA–HQ—OAR–2008–0334.)

C. What are the economic impacts?

The final standard is estimated to impact a total of approximately 450 existing source facilities and 27 new sources in the next 3 years. Many of the facilities affected by this final rule are small entities. Our analyses indicate that the final rule will not impose a significant adverse impact on any facilities, large or small. The average cost for each chemical manufacturing industry is projected to be less than 0.06 percent of average sales. In addition, the average costs in each industry are projected to be less than 0.2 percent of average sales for the smallest facilities within each industry (*i.e.,* facilities with 50 to 99 employees).

D. What are the non-air health, environmental, and energy impacts?

The secondary impacts would include energy impacts associated with direct operation of combustion control devices, energy impacts associated with the generation of electricity to operate control devices, and solid waste generated as a result of the metal HAP emissions collected. Organic materials that are recovered from wastewater using gravity separation techniques would also be a solid waste if the material could not be reused in a process or as fuel.

We estimate that an additional 175 megawatt-hr/yr of electricity and 260,000 standard cubic feet per year of natural gas will be needed to operate control devices. We estimate that an additional 1.7 tpy of criteria pollutants will be generated from the combustion of natural gas in combustion control devices and from the combustion of coal to generate electricity. We estimate that controlling metal HAP emissions will generate an additional 580 tpy of solid

waste, including about 41 tpy of HAP metals. An estimated 8 tpy of organic material will be recovered from wastewater using gravity separation techniques.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a ''significant regulatory action'' because it may raise novel legal or policy issues. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866, and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

The information collection requirements in this final rule have been submitted for approval to OMB under the *Paperwork Reduction Act,* 44 U.S.C. 3501, *et seq.* The information collection requirements are not enforceable until OMB approves them.

The recordkeeping and reporting requirements in this final rule are based on the requirements in EPA's NESHAP General Provisions to part 63. These recordkeeping and reporting requirements are mandatory pursuant to section 113 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the information collection requirements for which a claim of confidentiality is made is safeguarded according to CAA section 114(c) and the Agency's implementing regulations at 40 CFR part 2, subpart B.

This final NESHAP requires chemical manufacturing area sources to submit an initial notification of applicability, Notification of Compliance Status report, performance test results, and semiannual compliance reports. The semiannual compliance reports are only required to be submitted if any deviations from any requirements in the rule occurred during the applicable semiannual reporting period. Area sources must also estimate emissions from batch process vents and metal HAP process vents, determine the TRE for continuous process vents, identify and characterize the PSHAP concentration in wastewater streams, prepare a heat exchange system monitoring plan, conduct design evaluations to determine control efficiency, and conduct inspections for leaks.

Records will be required to demonstrate compliance with the TRE calculation requirements for continuous process vents, batch and metal process vent emissions estimation requirements, inspections and vapor pressure calculations for storage tanks, wastewater HAP concentration requirements, and management practice inspection records for each CMPU.

The annual burden associated with the monitoring, recordkeeping, and reporting requirements for this information collection, averaged over the first 3 years of this ICR, is estimated to total 10,566 labor hours per year at a cost of $803,906. Capital/startup costs for performance tests and monitoring equipment were annualized and estimated at $69,484/yr; operation and maintenance costs for the monitoring equipment were estimated at $28,787/yr. The costs attributable to the final standards are associated with the initial compliance demonstration, monitoring, recordkeeping, and reporting requirements. Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

C. Regulatory Flexibility Act

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

For purposes of assessing the impacts of this final rule on small entities, small entity is defined as: (1) A small business that meets the Small Business Administration size standards for small businesses found at 13 CFR 121.201 (less than 500, 750, or 1,000 employees depending on the specific NAICS Code under subcategory 325); (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This final rule is estimated to impact a total of approximately 450 chemical manufacturing area sources; more than 150 of these facilities are estimated to be small entities. An economic impacts analysis was performed to compare the control costs associated with producing a product at facilities in the various chemical manufacturing industries to the average value of shipments from such facilities. In all industries, the average costs are projected to be less than 0.07 percent of average sales. For the smallest facilities in each industry (those with 50 to 99 employees), the average costs are all projected to be less than 0.2 percent of average sales. Thus, any price increases or loss of profit would be quite small.

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this final rule on small entities. The standards represent practices and controls that are common throughout the sources engaged in chemical manufacturing, and in many cases only require management practices. The standards require only the recordkeeping and reporting needed to demonstrate and verify compliance.

D. Unfunded Mandates Reform Act

This final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. The total annual cost of the rule is estimated at $3.2 million/yr. This final rule is not expected to impact State, local, or tribal governments. Thus, this action is not subject to the requirements of sections 202 and 205 of the UMRA.

This final rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This final rule contains no requirements that apply to such governments, imposes no obligations upon them, and would not result in expenditures by them of $100 million or more in any one year or any disproportionate impacts on them.

E. Executive Order 13132: Federalism

This final rule does not have federalism implications. It will not have substantial direct effects on the States,

on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This final rule does not impose any requirements on State and local governments. Thus, Executive Order 13132 does not apply to this final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This action imposes requirements on owners and operators of specified area sources and not tribal governments. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This action is not subject to Executive Order 13045 because it is based solely on technology performance.

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

This action is not a ''significant energy action'' as defined in Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that this rule is not likely to have any adverse energy impacts.

I. National Technology Transfer and Advancement Act

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

This action involves technical standards. EPA cites the following standards: EPA Methods 5 and 5D in 40 CFR part 60, Appendix A–3 and EPA Method 29 in 40 CFR part 60, Appendix A–8. Therefore, EPA conducted a search to identify potentially applicable VCS. No applicable VCS were identified for EPA Methods 5D and 29. The search identified four VCS as possible alternatives to EPA Method 5. EPA determined that these four standards were impractical alternatives to the EPA test methods. Therefore, EPA does not intend to adopt these standards for this purpose. The reasons for the determinations for the 4 methods are discussed in a memorandum included in the docket for this action.

Under 40 CFR 63.7(f) and 40 CFR 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures in the final rule.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. The final rule increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. The nationwide standards will reduce HAP emissions and thus decrease the amount of emissions to which all affected populations are exposed.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801, *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of Congress and to the Comptroller General of the United States. EPA will submit a report containing this final rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). This final rule will be effective on October 29, 2009.

List of Subjects for 40 CFR Part 63

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

Dated: October 16, 2009.

Lisa P. Jackson,

Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

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

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

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

Subpart VVVVVV—National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources

Sec.

Applicability and Compliance Dates

Standards and Compliance Requirements

Applicability and Compliance Dates

§ 63.11494 What are the applicability requirements and compliance dates?

(a) Except as specified in paragraph (c) of this section, you are subject to this subpart if you own or operate a chemical manufacturing process unit (CMPU) that meets the conditions specified in paragraphs (a)(1) through (3) of this section.

(1) The CMPU uses as feedstocks, generates as byproducts, or produces as products any of the hazardous air pollutants (HAP) listed in Table 1 to this subpart (Table 1 HAP).

(2) The CMPU is located at an area source of HAP emissions.

(3) Table 1 HAP are present in feedstocks, or Table 1 HAP are generated or produced in the CMPU and are present in process fluid, at concentrations greater than 0.1 percent for carcinogens, as defined by the Occupational Safety and Health Administration at 29 CFR 1910.1200(d)(4), and greater than 1.0 percent for noncarcinogens. To determine the Table 1 HAP content of feedstocks, you may rely on formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet (MSDS) for the material. If the concentration in an MSDS is presented as a range, use the upper bound of the range.

(b) A CMPU includes all process vessels, equipment, and activities necessary to operate a chemical manufacturing process that produces a material or a family of materials described by North American Industry Classification System (NAICS) code 325. A CMPU consists of one or more unit operations and any associated recovery devices. A CMPU also includes each storage tank, transfer operation, surge control vessel, and bottoms receiver associated with the production of such NAICS code 325 materials.

(c) This subpart does not apply to the operations specified in paragraphs (c)(1) through (6) of this section.

(1) Affected sources under the following chemical manufacturing area source categories listed pursuant to Clean Air Act (CAA) section 112(c)(3) and 112(k)(3)(B)(ii) that are subject to area source standards under this part:

(i) Manufacture of Paint and Allied Products, subject to subpart CCCCCCC of this part.

(ii) Mercury Emissions from Mercury Cell Chlor-Alkali Plants, subject to subpart IIIII of this part.

(iii) Polyvinyl Chloride and Copolymers Production, subject to subpart DDDDDD of this part.

(iv) Acrylic and Modacrylic Fibers Production, subject to subpart LLLLLL of this part.

(v) Carbon Black Production, subject to subpart MMMMMM of this part.

(vi) Chemical Manufacturing Area Sources: Chromium Compounds, subject to subpart NNNNNN of this part.

(2) Production of the following chemical manufacturing materials described in NAICS code 325:

(i) Manufacture of radioactive elements or isotopes, radium chloride, radium luminous compounds, strontium, uranium.

(ii) Manufacture of photographic film, paper, and plate where the material is coated with or contains chemicals. This subpart does apply to the manufacture of photographic chemicals.

(iii) Fabricating operations (such as spinning or compressing a solid polymer into its end use); compounding operations (in which blending, melting, and resolidification of a solid polymer product occurs for the purpose of incorporating additives, colorants, or stabilizers); and extrusion and drawing operations (converting an already produced solid polymer into a different shape by melting or mixing the polymer and then forcing it or pulling it through an orifice to create an extruded product). An operation is subject if it involves processing with Table 1 HAP solvent or if an intended purpose of the operation is to remove residual Table 1 HAP monomer.

(iv) Manufacture of chemicals classified in NAICS code 325222, 325314, 325413, or 325998.

(3) Research and development facilities, as defined in CAA section 112(c)(7).

(4) Quality assurance/quality control laboratories.

(5) Ancillary activities, as defined in § 63.11502(b).

(6) Metal HAP in structures or existing as articles as defined in 40 CFR 372.3.

(d) This subpart applies to each new or existing affected source. The affected source is the facility-wide collection of CMPUs and each heat exchange system and wastewater system associated with a CMPU that meets the criteria specified in paragraphs (a) and (b) of this section. A CMPU using only Table 1 organic HAP is required to control only total CAA section 112(b) organic HAP. A CMPU using only Table 1 metal HAP is required to control only total CAA section 112(b) metal HAP.

(1) An affected source is an existing source if you commenced construction or reconstruction of the affected source before October 6, 2008.

(2) An affected source is a new source if you commenced construction or reconstruction of the affected source on or after October 6, 2008.

(e) Any source that was a major source and installed a control device on a CMPU after November 15, 1990, and, as a result, became an area source under 40 CFR part 63 is required to obtain a permit under 40 CFR part 70 or 40 CFR part 71. Otherwise, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

(f) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions in this subpart no later than October 29, 2012.

(g) If you start up a new affected source on or before October 29, 2009, you must achieve compliance with the

applicable provisions of this subpart no later than October 29, 2009.

(h) If you start up a new affected source after October 29, 2009, you must achieve compliance with the provisions in this subpart upon startup of your affected source.

Standards and Compliance Requirements

§ 63.11495 What are the management practices and other requirements?

(a) *Management practices.* If you have a CMPU subject to this subpart, you must comply with paragraphs (a)(1) through (5) of this section.

(1) Each process vessel in organic HAP service or metal HAP service must be equipped with a cover or lid that must be in place at all times when the vessel contains HAP, except for material addition and sampling.

(2) You must use any of the methods listed in paragraphs (a)(2)(i) through (iv) of this section to control total organic HAP emissions from transfer of liquids containing Table 1 organic HAP to tank trucks or railcars. You are not required to comply with this paragraph (a)(2) if you have notified the Administrator in your initial notification that a material is reactive or resinous, and you will not be able to comply with any of the methods in paragraphs (a)(2)(i) through (iv) of this section for the transfer of such material.

(i) Use submerged loading or bottom loading.

(ii) Route emissions to a fuel gas system or process in accordance with § 63.982(d) of subpart SS.

(iii) Vapor balance back to the storage tank or another storage tank connected by a common header.

(iv) Vent through a closed-vent system to a control device.

(3) You must conduct inspections of process vessels and equipment for each CMPU in organic HAP service or metal HAP service at least quarterly to demonstrate compliance with these requirements and to determine that the process vessels and equipment are sound and free of leaks. For these inspections, detection methods incorporating sight, sound, or smell are acceptable. The inspection must include direct and proximal (thorough) inspection of all areas of potential leak within the CMPU. Indications of a leak identified using such method constitutes a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. Alternatively, Method 21 of 40 CFR part 60, appendix A–7, with a leak definition of 500 parts per million by volume (ppmv), may be used for detection of leaks or to determine if the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, you must still perform the inspection and demonstration in the next quarterly monitoring period. Inspections must be conducted while the subject CMPU is operating. No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required.

(4) You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of this paragraph (a)(4), a leak will be considered ''repaired'' if a condition specified in paragraph (a)(4)(i), (ii), or (iii) of this section is met.

(i) The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or

(ii) No bubbles are observed at potential leak sites during a leak check using soap solution, or

(iii) The system will hold a test pressure.

(5) You must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair.

(b) *Small heat exchange systems.* For each heat exchange system subject to this subpart with a cooling water flow rate less than 8,000 gallons per minute (gal/min) and not meeting one or more of the conditions in § 63.104(a), you must comply with paragraphs (b)(1) through (3) of this section, or as an alternative, you may comply with any one of the requirements in Item 1.a or 1.b of Table 8 to this subpart.

(1) You must develop and operate in accordance with a heat exchange system inspection plan. The plan must describe the inspections to be performed that will provide evidence of hydrocarbons in the cooling water. Among other things, inspections may include checks for visible floating hydrocarbon on the water, hydrocarbon odor, discolored water, and/or chemical addition rates. You must conduct inspections at least once per quarter, even if the previous inspection determined that the indications of a leak did not constitute a leak as defined by § 63.104(b)(6).

(2) You must perform repairs to eliminate the leak and any indications of a leak or demonstrate that the HAP concentration in the cooling water does not constitute a leak, as defined by § 63.104(b)(6), within 45 calendar days after indications of the leak are identified, or you must document the reason for any delay of repair in your next semiannual compliance report.

(3) You must keep records of the dates and results of each inspection, documentation of any demonstrations that indications of a leak do not constitute a leak, the dates of leak repairs, and, if applicable, the reasons for any delay in repair.

(c) Startup, shutdown, and malfunction (SSM) provisions in subparts that are referenced in paragraphs (a) and (b) of this section do not apply.

§ 63.11496 What are the standards and compliance requirements for process vents?

(a) *Organic HAP Emissions from Batch Process Vents.* You must comply with the requirements in paragraphs (a)(1) through (4) of this section for organic HAP emissions from your batch process vents for each CMPU using Table 1 organic HAP. If uncontrolled organic HAP emissions from all batch process vents from a CMPU subject to this subpart are equal to or greater than 10,000 pounds per year (lb/yr), you must also comply with the emission limits and other requirements in Table 2 to this subpart.

(1) You must determine the sum of actual organic HAP emissions from all of your batch process vents within a CMPU subject to this subpart using process knowledge, engineering assessment, or test data. Emissions for a standard batch in a process may be used to represent actual emissions from each batch in that process. You must maintain records of the calculations. Calculations of annual emissions are not required if you meet the emission standards for batch process vents in Table 2 to this subpart.

(2) As an alternative to calculating actual emissions for each affected CMPU at your facility, you may elect to estimate emissions for each CMPU based on the emissions for the worst-case CMPU. The worst-case CMPU means the CMPU at the affected source with the highest organic HAP emissions per batch. The worst-case emissions per batch are used with the number of batches run for other affected CMPU. Process knowledge, engineering assessment, or test data may be used to identify the worst-case process. You must keep records of the information and procedures used to identify the worst-case process.

(3) If your current estimate is that emissions from batch process vents from a CMPU are less than 10,000 pounds per

year (lb/yr), then you must keep a record of the number of batches of each process operated per month. Also, you must reevaluate your total emissions from batch process vents prior to making any process changes that affect emission calculations in paragraphs (a)(1) and (2) of this section. If projected emissions increase to 10,000 lb/yr or more, you must be in compliance options for batch process vents in Table 2 to this subpart upon initiating operation under the new operating conditions. You must maintain records documenting the results of all updated emissions calculations.

(4) As an alternative to determining the HAP emissions, you may elect to demonstrate that the amount of organic HAP used in the process is less than 10,000 lb/yr. You must keep monthly records of the organic HAP usage.

(b) *Organic HAP Emissions from Continuous Process Vents.* You must comply with the requirements in paragraphs (b)(1) through (3) of this section for organic HAP emissions from your continuous process vents for each CMPU subject to this subpart using Table 1 organic HAP. If the total resource-effectiveness (TRE) index value for a continuous process vent is less than or equal to 1.0, you must also comply with the emission limits and other requirements in Table 3 to this subpart.

(1) You must determine the TRE index value according to the procedures in § 63.115(d), except as specified in paragraphs (b)(1)(i) through (iii) of this section.

(i) You are not required to calculate the TRE index value if you control emissions in accordance with Table 3 to this subpart.

(ii) Sections 63.115(d)(1)(i) and (ii) are not applicable for the purposes of this paragraph (b)(1)(ii).

(iii) You may assume the TRE for a vent stream is > 1.0 if the amount of organic HAP emitted in the vent stream is less than 0.1 pound per hour.

(2) If the current TRE index value is greater than 1, you must recalculate the TRE index value before you make any process or operational change that affects parameters in the calculation. If the recalculated TRE is less than or equal to 1.0, then you must comply with one of the compliance options for continuous process vents in Table 3 to this subpart before operating under the new operating conditions. You must maintain records of all TRE calculations.

(3) If a recovery device as defined in § 63.11502 is used to maintain the TRE index value at a level greater than 1.0 and less than or equal to 4.0, you must comply with § 63.982(e) and the requirements specified therein.

(c) *Combined Streams.* If you combine organic HAP emissions from batch process vents and continuous process vents, you must comply with the more stringent standard in Table 2 or Table 3 to this subpart that applies to any portion of the combined stream, or you must comply with Table 2 for the batch process vents and Table 3 for the continuous process vents. The TRE index value for continuous process vents and the annual emissions from batch process vents shall be determined for the individual streams before they are combined, and prior to any control, in order to determine the most stringent applicable requirements.

(d) *Combustion of Halogenated Streams.* If you use a combustion device to comply with the emission limits for organic HAP from a halogenated batch process vent or a halogenated continuous process vent, you must use a halogen reduction device to meet the emission limit in either paragraph (d)(1) or (d)(2) of this section and in accordance with § 63.994 and the requirements referenced therein.

(1) Reduce overall emissions of hydrogen halide and halogen HAP after the combustion device by greater than or equal to 95 percent, to less than or equal to 0.45 kilograms per hour (kg/hr), or to a concentration less than or equal to 20 parts per million by volume (ppmv).

(2) Reduce the halogen atom mass emission rate before the combustion device to less than or equal to 0.45 kg/hr or to a concentration less than or equal to 20 ppmv.

(e) *Alternative Standard for Organic HAP.* Exceptions to the requirements for the alternative standard requirements specified in Tables 2 and 3 to this subpart and § 63.2505 are specified in paragraphs (e)(1) through (5) of this section.

(1) When § 63.2505 of subpart FFFF refers to Tables 1 and 2 to subpart FFFF and §§ 63.2455 and 63.2460, it means Tables 2 and 3 to this subpart and § 63.11496(a) and (b).

(2) Sections 63.2505(a)(2) and (b)(9) do not apply.

(3) When § 63.2505(b) references § 63.2445 it means § 63.11494(f) through (h).

(4) The requirements for hydrogen halide and halogen HAP apply only to hydrogen halide and halogen HAP generated in a combustion device that is used to comply with the alternative standard.

(5) When § 63.1258(b)(5)(ii)(B)(*2*) refers to a ''notification of process change'' report, it means the semi-annual compliance report required by § 63.11501(d) for the purposes of this subpart.

(f) *Emissions from Metal HAP Process Vents.* You must comply with the requirements in paragraphs (f)(1) and (2) of this section for metal HAP emissions from each CMPU using Table 1 metal HAP. If the collective uncontrolled metal HAP emissions from all metal HAP process vents from a CMPU are equal to or greater than 400 lb/yr, then you must also comply with the emission limits and other requirements in Table 4 to this subpart and in paragraph (f)(3), (4), or (5) of this section.

(1) You must determine the sum of metal HAP emissions from all metal HAP process vents within a CMPU subject to this subpart, except you are not required to determine the annual emissions if you control the metal HAP process vents within a CMPU in accordance with Table 4 to this subpart or if you determine your total metal HAP usage in the process unit is less than 400 lb/yr. To determine the mass emission rate you may use process knowledge, engineering assessment, or test data. You must keep records of the emissions calculations.

(2) If your current estimate is that total uncontrolled metal HAP emissions from a CMPU subject to this subpart are less than 400 lb/yr, then you must keep records of either the number of batches operated per month (batch vents) or the process operating hours (continuous vents). Also, you must reevaluate your total emissions before you make any process or operational change that affects emissions of metal HAP. If projected emissions increase to 400 lb/yr or more, then you must be in compliance with one of the options for metal HAP process vents in Table 4 to this subpart upon initiating operation under the new operating conditions. You must keep records of all recalculated emissions determinations.

(3) If you have an existing source subject to the HAP metals emission limits specified in Table 4 to this subpart, you must comply with the initial compliance and monitoring requirements in paragraphs (f)(3)(i) through (iii) of this section. You must keep records of monitoring results to demonstrate continuous compliance.

(i) You must prepare a monitoring plan containing the information in paragraphs (f)(3)(i)(A) through (E) of this section. The plan must be maintained on-site and be available on request. You must operate and maintain the control device according to a site-specific monitoring plan at all times.

(A) A description of the device;

(B) Results of a performance test or engineering assessment conducted in accordance with paragraph (f)(3)(ii) of this section verifying the performance of the device for reducing HAP metals or particulate matter (PM) to the levels required by this subpart;

(C) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system.

(D) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limits; and

(E) Operating parameter limits based on either monitoring data collected during the performance test or established in the engineering assessment.

(ii) You must conduct a performance test or an engineering assessment for each CMPU subject to a HAP metals emissions limit in Table 4 to this subpart and report the results in your Notification of Compliance Status (NOCS) report. If you own or operate an existing affected source, you are not required to conduct a performance test if a prior performance test was conducted within the 5 years prior to the effective date using the same methods specified in paragraph (f)(3)(iii) of this section and either no process changes have been made since the test, or if you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes. For each performance test, sampling must be conducted at both the inlet and outlet of the control device, and the test must be conducted under representative process operating conditions.

(iii) If you elect to conduct a performance test, it must be conducted according to requirements in § 63.11410(j)(1). As an alternative to conducting a performance test using Method 5 or 5D to determine the concentration of PM, you may use Method 29 in 40 CFR part 60, appendix A–8 to determine the concentration of HAP metals. You have demonstrated initial compliance if the overall reduction of either HAP metals or total PM is equal to or greater than 95 percent.

(4) If you have a new source using a baghouse as a control device, you must install, operate, and maintain a bag leak detection system on all baghouses used to comply with the HAP metals emissions limit in Table 4 to this subpart. You must comply with the testing, monitoring, and recordkeeping requirements in § 63.11410(g), (i), and (j)(1), except you are not required to submit the monitoring plan required by § 63.11410(g)(2) for approval.

(5) If you have a new source using a control device other than a baghouse to comply with the HAP metals emission limits in Table 4 to this subpart, you must comply with the initial compliance and monitoring requirements in paragraphs (f)(3)(i) through (iii) of this section.

(g) *Exceptions and Alternatives to 40 CFR Part 63, Subpart SS.* If you are complying with the emission limits and other requirements for continuous process vents in Table 3 to this subpart, the provisions in paragraphs (g)(1) through (7) and (9) of this section apply in addition to the provisions in 40 CFR part 63, subpart SS. If you are complying with the emission limits and other requirements for batch process vents in Table 2 to this subpart, the provisions in paragraphs (g)(1) through (8) of this section apply in addition to the provisions in subpart SS.

(1) *Requirements for Performance Tests.* The requirements specified in §§ 63.2450(g)(1) through (4) apply instead of or in addition to the requirements specified in 40 CFR part 63, subpart SS.

(2) *Design Evaluation.* To determine initial compliance with a percent reduction emission limit, you may elect to conduct a design evaluation as specified in § 63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s) and basis for the operating limits as part of the design evaluation. For continuous process vents, the design evaluation must be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. For batch process vents, the design evaluation must be conducted under worst-case conditions, as specified in § 63.2460(c)(2).

(3) *Outlet Concentration Correction for Combustion Devices.* When § 63.997(e)(2)(iii)(C) requires you to correct the measured concentration at the outlet of a combustion device to 3 percent oxygen if you add supplemental combustion air, the requirements in either paragraph (g)(3)(i) or (g)(3)(ii) of this section apply for the purposes of this subpart.

(i) You must correct the concentration in the gas stream at the outlet of the combustion device to 3 percent oxygen if you add supplemental gases, as defined in § 63.2550, to the vent stream, or;

(ii) You must correct the measured concentration for supplemental gases using Equation 1 of § 63.2460; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

(4) *Continuous Parameter Monitoring.* The provisions in § 63.2450(k)(1) through (6) apply in addition to the requirements for continuous parameter monitoring systems (CPMS) in subpart SS of this part 63, except as specified in paragraphs (g)(4)(i) and (ii) of this section.

(i) You may measure pH at least once per day for any halogen scrubber within a CMPU subject to this rule.

(ii) The requirements in § 63.2450(k)(6) to request approval of a procedure to monitor operating parameters does not apply for the purposes of this subpart. You must provide the required information in your NOCS report required by § 63.11501(b).

(5) *Startup, Shutdown, Malfunction (SSM).* Section 63.998(b)(2)(iii),(b)(6)(i)(A), and (d)(3) do not apply for the purposes of this subpart.

(6) *Excused Excursions.* Excused excursions, as defined in subpart SS of this part 63, are not allowed.

(7) *Energetics and Organic Peroxides.* If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in this subpart, then you must submit an application to the Administrator explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams in lieu of the emission limitations in this section.

(8) *Additional Requirements for Batch Process Vents.* The provisions specified in § 63.2460(c) apply in addition to the provisions in subpart SS of this part 63, except as specified in paragraphs (g)(8)(i) through (iii) of this section.

(i) References to emission limits in Table 2 to subpart FFFF mean the emission limits in Table 2 to this subpart.

(ii) References to MCPU mean CMPU for purposes of this subpart.

(iii) Section 63.2460(c)(8) does not apply for the purposes of this subpart.

(9) *Parameter Monitoring Averaging Periods.* Daily averages required in § 63.998(b)(3) apply at all times except during startup and shutdown. Separate averages shall be determined for each period of startup and period of shutdown.

(h) *Surge Control Vessels and Bottoms Receivers.* For each surge control vessel and bottoms receiver that meets the applicability criteria for storage tanks specified in Table 5 to this subpart, you must meet the emission limits and control requirements specified in Table 5 to this subpart.

(i) *Startup, shutdown, and malfunction (SSM).* References to SSM provisions in subparts that are referenced in paragraphs (a) through (h) of this section or Tables 2 through 5 to this subpart do not apply.

§ 63.11497 What are the standards and compliance requirements for storage tanks?

(a) You must comply with the emission limits and other requirements in Table 5 to this subpart and in paragraph (b) of this section for organic HAP emissions from each of your storage tanks that meet the applicability criteria in Table 5 to this subpart.

(b) *Planned Routine Maintenance for a Control Device.* Operate in accordance with paragraphs (b)(1) through (3) of this section for periods of planned routine maintenance of a control device for storage tanks.

(1) Add no material to the storage tank during periods of planned routine maintenance.

(2) Limit periods of planned routine maintenance for each control device (or series of control devices) to no more than 240 hours per year (hr/yr), or submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed and it must be submitted at least 60 days before the 240-hour limit will be exceeded.

(3) Keep records of the day and time at which planned routine maintenance periods begin and end, and keep a record of the type of maintenance performed.

(c) References to SSM provisions in subparts that are referenced in paragraphs (a) or (b) of this section or Table 5 to this subpart do not apply.

§ 63.11498 What are the standards and compliance requirements for wastewater systems?

(a) You must comply with the requirements in paragraph (a)(1) and (2) of this section and in Table 6, Item 1 to this subpart for all wastewater streams from a CMPU subject to this subpart. If the partially soluble HAP concentration in a wastewater stream is equal to or greater than 10,000 parts per million by weight (ppmw) and the wastewater stream contains a separate organic phase, then you must also comply with Table 6, Item 2 to this subpart for that wastewater stream. Partially soluble HAP are listed in Table 7 to this subpart.

(1) Except as specified in paragraph (a)(2) of this section, you must determine the total concentration of partially soluble HAP in each wastewater stream using process knowledge, engineering assessment, or test data. Also, you must reevaluate the concentration of partially soluble HAP if you make any process or operational change that affects the concentration of partially soluble HAP in a wastewater stream.

(2) You are not required to determine the partially soluble concentration in wastewater that is hard piped to a combustion unit or hazardous waste treatment unit, and you are not required to determine the partially soluble HAP concentration in wastewater that is hard piped to a storage tank from which the wastewater is collected and shipped offsite for treatment in a combustion unit or hazardous waste treatment unit.

(3) Separated organic material that is recycled to a process is no longer wastewater and no longer subject to the wastewater requirements after it has been recycled.

(b) The requirements in Item 2 of Table 6 to this subpart do not apply during periods of startup or shutdown. References to SSM provisions in subparts that are referenced in paragraph (a) of this section or Table 6 to this subpart do not apply.

§ 63.11499 What are the standards and compliance requirements for heat exchange systems?

(a) If the cooling water flow rate in your heat exchange system is equal to or greater than 8,000 gal/min and is not meeting one or more of the conditions in § 63.104(a), then you must comply with one of the requirements specified in Table 8 to this subpart.

(b) For equipment that meets Current Good Manufacturing Practice (CGMP) requirements of 21 CFR part 211, you may use the physical integrity of the reactor as the surrogate indicator of heat exchanger system leaks when complying with Item 1.a in Table 8 to this subpart.

(c) Any reference to SSM provisions in other subparts that are referenced in paragraphs (a) and (b) of this section or Table 8 to this subpart do not apply.

§ 63.11500 What compliance options do I have if part of my plant is subject to both this subpart and another Federal standard?

For any CMPU, heat exchange system, or wastewater system subject to the provisions of both this subpart and another rule, you may elect to comply only with the more stringent provisions as specified in paragraphs (a) through (d) of this section. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the subject CMPU, heat exchange system, and/or wastewater system, and the provisions with which you will comply in your NOCS report required by § 63.11501(b). You also must demonstrate in your NOCS report that each provision with which you will comply is at least as stringent as the otherwise applicable requirement in this subpart VVVVVV. You are responsible for making accurate determinations concerning the more stringent standards and noncompliance with this rule is not excused if it is later determined that your determination was in error and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the NOCS report does not alter or affect that responsibility.

(a) *Compliance with Other Subparts of this Part 63.* If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of another subpart of 40 CFR part 63, then compliance with any of the requirements in the other subpart of this part 63 that are at least as stringent as the corresponding requirements in this subpart VVVVVV constitutes compliance with this subpart VVVVVV.

(b) *Compliance with Subparts of 40 CFR Part 60.* If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of subpart VV, DDD, III, NNN, RRR, or YYY in 40 CFR part 60, then compliance with any of the requirements in 40 CFR part 60, subpart VV, DDD, III, NNN, RRR, or YYY that are at least as stringent as the corresponding requirements in this subpart VVVVVV constitutes compliance with this subpart VVVVVV.

(c) *Compliance with Subparts of 40 CFR Part 61.* If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of subpart V, Y, BB, or FF of 40 CFR part 61, then compliance with any of the requirements in 40 CFR part 61, subpart V, Y, BB, or FF that are at least as stringent as the corresponding requirements in this subpart VVVVVV constitutes compliance with this subpart VVVVVV.

(d) *Compliance with 40 CFR Parts 260 through 272.* If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of 40 CFR parts 260 through 272, then compliance with any of the requirements in 40 CFR part 260

through 272 rule that are at least as stringent as the corresponding requirements in this subpart VVVVVV constitutes compliance with this subpart VVVVVV.

§ 63.11501 What are the notification, recordkeeping, and reporting requirements?

(a) *General Provisions.* You must meet the requirements of the General Provisions in 40 CFR part 63, subpart A, as shown in Table 9 to this subpart. The General Provisions in other parts do not apply except when a requirement in an overlapping standard, which you determined is at least as stringent as subpart VVVVVV and with which you have opted to comply, requires compliance with general provisions in another part.

(b) *Notification of Compliance Status (NOCS).* Your NOCS required by § 63.9(h) must include the following additional information as applicable:

(1) This certification of compliance, signed by a responsible official:

(i) ''This facility complies with the management practices in § 63.11495.''

(ii) ''This facility complies with the requirements in § 63.11496 for HAP emissions from process vents.''

(iii) ''This facility complies with the requirements in § 63.11496 and § 63.11497 for surge control vessels, bottoms receivers, and storage tanks.''

(iv) ''This facility complies with the requirements in § 63.11498 to treat wastewater streams.''

(v) ''This facility complies with the requirements in § 63.11499 for heat exchange systems.''

(2) If you comply with the alternative standard as specified in Table 2 to this subpart or Table 3 to this subpart, include the information specified in § 63.1258(b)(5), as applicable.

(3) If you establish an operating limit for a parameter that will not be monitored continuously in accordance with §§ 63.11496(g)(4) and 63.2450(k)(6), provide the information as specified in §§ 63.11496(g)(4) and 63.2450(k)(6).

(4) A list of all transferred liquids that are reactive or resinous materials, as defined in § 63.11502(b).

(5) If you comply with provisions in an overlapping rule in accordance with § 63.11500, identify the affected CMPU, heat exchange system, and/or wastewater system; provide a list of the specific provisions with which you will comply; and demonstrate that the provisions with which you will comply are at least as stringent as the otherwise applicable requirements, including monitoring, recordkeeping, and reporting requirements, in this subpart VVVVVV.

(c) *Recordkeeping.* You must maintain files of all information required by this subpart for at least 5 years following the date of each occurrence according to the requirements in § 63.10(b)(1). If you are subject, you must comply with the recordkeeping requirements of § 63.10(b)(2) and the applicable requirements specified in paragraphs (c)(1) through (7) of this section.

(1) For each CMPU subject to this subpart you must keep the records specified in paragraphs (c)(1)(i) through (vi) of this section, as applicable.

(i) Records of management practice inspections, repairs, and reasons for any delay of repair, as specified in § 63.11495(a)(5).

(ii) Records of small heat exchange system inspections, demonstrations of indications of leaks that do not constitute leaks, repairs, and reasons for any delay in repair as specified in § 63.11495(b).

(iii) If batch process vent emissions are less than 10,000 lb/yr for a CMPU, records of batch process vent emission calculations, as specified in § 63.11496(a)(1), the number of batches operated each month, as specified in § 63.11496(a)(3), and any updated emissions calculations, as specified in § 63.11496(a)(3). Alternatively, keep records of the worst-case processes or organic HAP usage, as specified in § 63.11496(a)(2) and (4), respectively.

(iv) Records of all TRE calculations for continuous process vents as specified in § 63.11496(b)(2).

(v) Records of metal HAP emission calculations as specified in § 63.11496(f)(1) and (2). If total uncontrolled metal HAP process vent emissions from a CMPU subject to this subpart are estimated to be less than 400 lb/yr, also keep records of either the number of batches per month or operating hours, as specified in § 63.11496(f)(2).

(vi) Records identifying wastewater streams and the type of treatment they receive, as specified in Table 6 to this subpart.

(2) For batch process vents subject to Table 2 to this subpart and continuous process vents subject to Table 3 to this subpart, you must keep records specified in paragraphs (c)(2)(i) or (ii) of this section, as applicable.

(i) If you route emissions to a control device other than a flare, keep records of performance tests, if applicable, as specified in § 63.998(a)(2)(ii) and (4), keep records of the monitoring system and the monitored parameters, as specified in § 63.998(b) and (c), and keep records of the closed-vent system, as specified in § 63.998(d)(1). If you use a recovery device to maintain the TRE above 1.0 for a continuous process vent, keep records of monitoring parameters during the TRE index value determination, as specified in § 63.998(a)(3).

(ii) If you route emissions to a flare, keep records of the flare compliance assessment, as specified in § 63.998(a)(1)(i), keep records of the pilot flame monitoring, as specified in § 63.998(a)(1)(ii) and (iii), and keep records of the closed-vent system, as specified in § 63.998(d)(1).

(3) For metal HAP process vents subject to Table 4 to this subpart, you must keep records specified in paragraphs (c)(3)(i) or (ii) of this section, as applicable.

(i) For a new source using a control device other than a baghouse and for any existing source, maintain a monitoring plan, as specified in § 63.11496(f)(3)(i), and keep records of monitoring results, as specified in § 63.11496(f)(3).

(ii) For a new source using a baghouse to control metal HAP emissions, keep a site-specific monitoring plan, as specified in §§ 63.11496(f)(4) and 63.11410(g), and keep records of bag leak detection systems, as specified in §§ 63.11496(f)(4) and 63.11410(g)(4).

(4) For each storage tank subject to Table 5 to this subpart, you must keep records specified in paragraphs (c)(4)(i) through (vi) of this section, as applicable.

(i) Keep records of the vessel dimension, capacity, and liquid stored, as specified in § 63.1065(a).

(ii) Keep records of each inspection of an internal floating roof, as specified in § 63.1065(b)(1).

(iii) Keep records of each seal gap measurement for external floating roofs, as specified in § 63.1065(b)(2), and keep records of inspections of external floating roofs, as specified in § 63.1065(b)(1).

(iv) If you vent emissions to a control device other than a flare, keep records of the operating plan and measured parameter values, as specified in §§ 63.985(c) and 63.998(d)(2).

(v) If you vent emissions to a flare, keep records of all periods of operation during which the flare pilot flame is absent, as specified in §§ 63.987(c) and 63.998(a)(1), and keep records of closed-vent systems, as specified in § 63.998(d)(1).

(vi) For periods of planned routine maintenance of a control device, keep records of the day and time at which each maintenance period begins and ends, and keep records of the type of maintenance performed, as specified in § 63.11497(b)(3).

(5) For each wastewater stream subject to Item 2 in Table 6 to this subpart, keep records of the wastewater stream identification and the disposition of the organic phase(s), as specified in Item 2 to Table 6 to this subpart.

(6) For each large heat exchange system subject to Table 8 to this subpart, you must keep records of detected leaks; the date the leak was detected; if demonstrated not to be a leak, the basis for that determination; the date of efforts to repair the leak; and the date the leak is repaired, as specified in Table 8 to this subpart.

(7) You must keep a record of all transferred liquids that are reactive or resinous materials, as defined in § 63.11502(b), and not included in the NOCS.

(d) *Semiannual Compliance Reports.* You must submit semiannual compliance reports that contain the information specified in paragraphs (d)(1) through (7) of this section, as applicable. Reports are required only for semiannual periods during which you experienced any of the events described in paragraphs (d)(1) through (7) of this section.

(1) *Deviations.* You must clearly identify any deviation from the requirements of this subpart.

(2) *Delay of Repair for a Large Heat Exchange System.* You must include the information specified in § 63.104(f)(2) each time you invoke the delay of repair provisions for a heat exchange system with a cooling water flow rate equal to or greater than 8,000 gal/min.

(3) *Delay of Leak Repair.* You must provide the following information for each delay of leak repair beyond 15 days for any process equipment, storage tank, surge control vessel, bottoms receiver, and each delay of leak repair beyond 45 days for any heat exchange system with a cooling water flow rate less than 8,000 gal/min: information on the date the leak was identified, the reason for the delay in repair, and the date the leak was repaired.

(4) *Process Change.* You must report each process change that affects a compliance determination and submit a new certification of compliance with the applicable requirements in accordance with the procedures specified in paragraph (b) of this section.

(5) *Data for the Alternative Standard.* If you comply with the alternative standard, as specified in Table 2 to this subpart or Table 3 to this subpart, report the information required in § 63.1258(b)(5).

(6) *Overlapping Rule Requirements.* Report any changes in the overlapping provisions with which you comply.

(7) *Reactive and Resinous Materials.* Report any transfer of liquids that are reactive or resinous materials, as defined in § 63.11502(b), and not included in the NOCS.

Other Requirements and Information

§ 63.11502 What definitions apply to this subpart?

(a) The following terms used in this subpart have the meaning given them in the CAA, § 63.2, subpart SS (§ 63.981), subpart WW (§ 63.1061), 40 CFR 60.111b, subpart F (§ 63.101), subpart G (§ 63.111), subpart FFFF (§ 63.2550), as specified after each term:

Administrator (§ 63.2)
Article (40 CFR 372.3)
Boiler (§ 63.111)
Bottoms receiver (§ 63.2550)
CAA (§ 63.2)
Closed-vent system (§ 63.981)
Combustion device (§ 63.111)
Commenced (§ 63.2)
Compliance date (§ 63.2)
Container (§ 63.111)
Continuous monitoring system (§ 63.2)
Distillation unit (§ 63.111)
Emission standard (§ 63.2)
EPA (§ 63.2)
Family of materials (§ 63.2550)
Fill or filling (§ 63.111)
Floating roof (§ 63.1061)
Fuel gas system (§ 63.981)
Halogen atoms (§ 63.2550)
Halogenated vent stream (§ 63.2550)
Halogens and hydrogen halides (§ 63.2550)
Hazardous air pollutant (§ 63.2)
Heat exchange system (§ 63.101)
Incinerator (§ 63.111)
Maintenance wastewater (§ 63.2550)
Major source (§ 63.2)
Maximum true vapor pressure (§ 63.111)
Oil-water separator or organic-water separator (§ 63.111)
Operating permit (§ 63.101)
Owner or operator (§ 63.2)
Performance test (§ 63.2)
Permitting authority (§ 63.2)
Process condenser (§ 63.2550)
Process heater (§ 63.111)
Process tank (§ 63.2550)
Process wastewater (§ 63.101)
Reactor (§ 63.111)
Responsible official (§ 63.2)
State (§ 63.2)
Supplemental gases (§ 63.2550)
Surge control vessel (§ 63.2550)
Test method (§ 63.2)
Unit operation (§ 63.101)

(b) All other terms used in this subpart shall have the meaning given them in this section. If a term is defined in the CAA, § 63.2, subpart SS (§ 63.981), subpart WW (§ 63.1061), 40 CFR 60.111b, subpart F (§ 63.101), subpart G (§ 63.111), or subpart FFFF (§ 63.2550), and in this section, it shall have the meaning given in this section for purposes of this subpart.

Ancillary activities means boilers, incinerators, and process heaters not used to comply with the emission standards in §§ 63.11495 through 63.11500, chillers and other refrigeration systems, and other equipment and activities that are not directly involved (*i.e.,* they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or intermediates used in the production of the product.

Batch process vent means a vent from a CMPU or vents from multiple CMPUs within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Batch process vents include vents with intermittent flow from continuous operations that are not combined with any stream that originated as a continuous gas stream from the same continuous process. Examples of batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:

(1) Continuous process vents;

(2) Bottoms receivers;

(3) Surge control vessels;

(4) Gaseous streams routed to a fuel gas system(s);

(5) A gas stream routed to other processes for reaction or other use in another process (*i.e.,* for chemical value as a product, isolated intermediate, byproduct, or coproduct, or for heat value).

(6) Vents on storage tanks or wastewater systems;

(7) Drums, pails, and totes; and

(8) Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP are not part of any batch process vent. The HAP concentration may be determined using any of the following: process knowledge, an engineering assessment, or test data.

Byproduct means a chemical (liquid, gas, or solid) that is produced coincidentally during the production of the product.

Chemical manufacturing process means all equipment which collectively functions to produce a product or isolated intermediate. A process includes, but is not limited to any, all, or a combination of reaction, recovery, separation, purification, or other

activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. A process is also defined by the following:

(1) Routine cleaning operations conducted as part of batch operations are considered part of the process;

(2) Each nondedicated solvent recovery operation is considered a single process;

(3) Each nondedicated formulation operation is considered a single process;

(4) Quality assurance/quality control laboratories are not considered part of any process;

(5) Ancillary activities are not considered a process or part of any process; and

(6) The end of a process that produces a solid material is either up to and including the dryer or extruder, or for a polymer production process without a dryer or extruder, it is up to and including the die plate or solid-state reactor, except in two cases. If the dryer, extruder, die plate, or solid-state reactor is followed by an operation that is designed and operated to remove HAP solvent or residual monomer from the solid, then the solvent removal operation is the last step in the process. If the dried solid is diluted or mixed with a HAP-based solvent, then the solvent removal operation is the last step in the process.

Continuous process vent means a ''process vent'' as defined in § 63.101 in subpart F of this part, except:

(1) The reference in § 63.107(e) to a chemical manufacturing process unit that meets the criteria of § 63.100(b) means a CMPU that meets the criteria of § 63.11494(a) and (b);

(2) The reference in § 63.107(h)(2) to subpart H means § 63.11495(a) for the purposes of this subpart;

(3) The reference in § 63.107(h)(4) to § 63.113 means Tables 2 and 3 to this subpart;

(4) The reference in § 63.107(h)(7) to § 63.119 means Table 5 to this subpart, and the reference to § 63.126 does not apply for the purposes of this subpart;

(5) The second sentence in the definition of ''process vent'' in § 63.101 does not apply for the purposes of this subpart;

(6) The references to an ''air oxidation reactor, distillation unit, or reactor'' in § 63.107 means any continuous operation for the purposes of this subpart;

(7) Section § 63.107(h)(8) does not apply for the purposes of this subpart; and

(8) A separate determination is required for the emissions from each CMPU, even if emission streams from two or more CMPU are combined prior to discharge to the atmosphere or to a control device.

Co-Product means a chemical that is produced during the production of another chemical, both for their intended production.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source fails to meet any requirement or obligation established by this subpart, including, but not limited to any emissions limitation or management practice; or fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in or associated with a CMPU.

Feedstock means any raw material, reactant, solvent, additive, or other material introduced to a CMPU.

In metal HAP service means that a process vessel or piece of equipment either contains or contacts a feedstock, byproduct, or product that contains metal HAP.

In organic HAP service means that a process vessel or piece of equipment either contains or contacts a feedstock, byproduct, or product that contains an organic HAP.

Metal HAP means the compounds containing metals listed as HAP in section 112(b) of the CAA.

Metal HAP process vent means the point of discharge to the atmosphere (or inlet to a control device, if any) of a metal HAP-containing gas stream from any CMPU at an affected source.

Organic HAP means any organic HAP listed in section 112(b) of the CAA. For the purposes of requirements in this subpart VVVVVV, hydrazine is to be considered an organic HAP.

Process vessel means each vessel, except hand-held containers, used in the processing of raw materials to chemical products. Examples include, but are not limited to reactors, distillation units, centrifuges, mixing vessels, and process tanks.

Product means a compound or chemical which is manufactured as the intended product of the CMPU. Products include co-products. By-products, isolated intermediates, impurities, wastes, and trace contaminants are not considered products.

Reactive material means energetics, organic peroxides, and unstable chemicals such as chemicals that react violently with water and chemicals that vigorously polymerize, decompose, or become self-reactive under conditions of pressure or temperature.

Recovery device means an individual unit of equipment capable of and normally used for the purpose of recovering organic chemicals or metal-containing chemicals for fuel value (*i.e.,* net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units.

Resinous material means a viscous, high-boiling point material resembling pitch or tar, such as plastic resin, that sticks to or hardens in the fill pipe under normal transfer conditions.

Shutdown, for a unit operation with a continuous process vent, means the cessation of the unit operation for any purpose. Shutdown begins with the initiation of steps as described in a written standard operating procedures (SOP) or shutdown plan to cease normal/stable operation (*e.g.,* reducing or immediately stopping feed).

Startup, for a unit operation with a continuous process vent, means the setting in operation of the unit for any purpose. The period of startup ends upon completion of the transient, non-equilibrium step at the time operating conditions reach steady state for operating parameters such as temperature, pressure, composition, feed rate, and production rate. Periods of startup described by SOP manuals at the affected source may be used to determine the period of startup.

Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP and that are part of a CMPU subject to this subpart VVVVVV. The following are not considered storage tanks for the purposes of this subpart:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals (kPa) and without emissions to the atmosphere;

(3) Process tanks;

(4) Tanks storing organic liquids containing HAP only as impurities;

(5) Surge control vessels;

(6) Bottoms receivers; and

(7) Wastewater storage tanks.

Transfer operations means all product loading into tank trucks and rail cars of liquid containing organic HAP from a transfer rack. Transfer operations do not

include the loading to other types of containers such as cans, drums, and totes.

Transfer rack means the system used to load organic liquids into tank trucks and railcars at a single geographic site. It includes all loading arms, pumps, meters, shutoff valves, relief valves, and other piping and equipment necessary for the transfer operation. Transfer equipment that are physically separate (*i.e.,* do not share common piping, valves, and other equipment) are considered to be separate transfer racks.

Wastewater means water that is discarded from a CMPU or control device and that contains at least 5 ppmw of any HAP listed in Table 9 to 40 CFR part 63, subpart G and has an annual average flow rate of 0.02 liters per minute. Wastewater means both process wastewater and maintenance wastewater that is discarded from a CMPU or control device. The following are not considered wastewater for the purposes of this subpart:

(1) Stormwater from segregated sewers;

(2) Water from fire-fighting and deluge systems, including testing of such systems;

(3) Spills;

(4) Water from safety showers;

(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;

(6) Equipment leaks;

(7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and

(8) Noncontact cooling water.

Wastewater stream means a single point discharge of wastewater from a CMPU or control device.

Wastewater treatment means chemical, biological, and mechanical procedures applied to wastewater to remove or reduce HAP or other chemical constituents.

§ 63.11503 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as a State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency pursuant to 40 CFR part 63, subpart E, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency within your State.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the approval authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(1) Approval of an alternative non-opacity emissions standard under § 63.6(g).

(2) Approval of a major change to a test method. A ''major change to test method'' is defined in § 63.90.

(3) Approval of a major change to monitoring under § 63.8(f). A ''major change to monitoring'' is defined in § 63.90.

(4) Approval of a major change to recordkeeping/reporting under § 63.10(f). A ''major change to recordkeeping/reporting'' is defined in § 63.90.

Tables to Subpart VVVVVV of Part 63

As required in § 63.11494(a), chemical manufacturing operations that process, use, or produce the HAP shown in the following table are subject to subpart VVVVVV.

TABLE 1 TO SUBPART VVVVVV OF PART 63—HAZARDOUS AIR POLLUTANTS USED TO DETERMINE APPLICABILITY OF CHEMICAL MANUFACTURING OPERATIONS

Type of HAP	Chemical name	CAS No.
1. Organic compounds	a. 1,3-butadiene	106990
	b. 1,3-dichloropropene	542756
	c. Acetaldehyde	75070
	d. Chloroform	67663
	e. Ethylene dichloride	107062
	f. Hexachlorobenzene	118741
	g. Methylene chloride	75092
	h. Quinoline	91225
2. Metal compounds	a. Arsenic compounds	.....
	b. Cadmium compounds	.....
	c. Chromium compounds	.....
	d. Lead compounds	.....
	e. Manganese compounds	.....
	f. Nickel compounds	.....
3. Others	a. Hydrazine	302012

As required in § 63.11496, you must comply with the requirements for batch process vents as shown in the following table.

TABLE 2 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS AND COMPLIANCE REQUIREMENTS FOR BATCH PROCESS VENTS

For * * *	You must * * *	Except * * *
1. Batch process vents in a CMPU at an existing source for which the total organic HAP emissions are equal to or greater than 10,000 lb/yr.	a. Reduce collective uncontrolled total organic HAP emissions from the sum of all batch process vents by ≥85 percent by weight or to ≤20 ppmv by routing emissions from a sufficient number of the batch process vents through a closed vent system to any combination of control devices (except a flare) in accordance with the requirements of § 63.982(c) and the requirements referenced therein; or	i. Compliance may be based on either total organic HAP or total organic carbon (TOC); and ii. As specified in § 63.11496(g).
	b. Route emissions from batch process vents containing at least 85 percent of the uncontrolled total organic HAP through a closed-vent system to a flare (except that a flare may not be used to control halogenated vent streams) in accordance with the requirements of § 63.982(b) and the requirements referenced therein; or	i. Not applicable.
	c. Comply with the alternative standard specified in § 63.2505 and the requirements referenced therein; or	i. As specified in § 63.11496(e) of this subpart.
	d. Comply with combinations of the requirements in Items a., b., and c. of this Table for different groups of batch process vents.	i. The information specified above for Items a., b., and c., as applicable.
2. Batch process vents in a CMPU at a new source for which the total organic HAP emissions are equal to or greater than 10,000 lb/yr.	a. Comply with any of the emission limits in Items 1.a through 1.d of this Table, except 90 percent reduction applies instead of 85 percent reduction in Item 1.a, and 90 percent of the emissions must be routed to a flare instead of 85 percent in Item 1.b.	i. The information specified above for Items 1.a., 1.b., 1.c., and 1.d, as applicable.
3. Halogenated batch process vent stream at a new or existing source that is controlled through combustion.	a. Comply with the requirements for halogen scrubbers in § 63.11496(d).	

As required in § 63.11496, you must comply with the requirements for continuous process vents as shown in the following table.

TABLE 3 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS AND COMPLIANCE REQUIREMENTS FOR CONTINUOUS PROCESS VENTS

For * * *	You must * * *	Except * * *
1. Each continuous process vent with a TRE ≤1.0.	a. Reduce emissions of total organic HAP by ≥95 percent by weight (≥85 percent by weight for periods of startup or shutdown) or to ≤20 ppmv by routing emissions through a closed vent system to any combination of control devices (except a flare) in accordance with the requirements of § 63.982(c)(2) and the requirements referenced therein; or	i. Compliance may be based on either total organic HAP or TOC; and ii. As specified in § 63.11496(g).
	b. Reduce emissions of total organic by HAP by routing all emissions through a closed-vent system to a flare (except that a flare may not be used to control halogenated vent streams) in accordance with the requirements of § 63.982(b) and the requirements referenced therein; or	i. Not applicable.
	c. Comply with the alternative standard specified in § 63.2505 and the requirements referenced therein.	i. As specified in § 63.11496(e).
2. Halogenated vent stream that is controlled through combustion.	a. Comply with the requirements for halogen scrubbers in § 63.11496(d).	

As required in § 63.11496(f), you must comply with the requirements for metal HAP process vents as shown in the following table.

TABLE 4 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS AND COMPLIANCE REQUIREMENTS FOR METAL HAP PROCESS VENTS

For * * *	You must * * *	Except * * *
Each CMPU with total metal HAP emissions ≥400 lb/yr.	Reduce collective uncontrolled emissions of total metal HAP emissions by ≥95 percent by weight by routing emissions from a sufficient number of the metal process vents through a closed-vent system to any combination of control devices, according to the requirements of § 63.11496(f)(3), (4), or (5).	Not applicable.

As required in § 63.11497, you must comply with the requirements for storage tanks as shown in the following table.

TABLE 5 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS AND COMPLIANCE REQUIREMENTS FOR STORAGE TANKS

For each * * *	You must * * *	Except * * *
1. Storage tank with a design capacity ≥40,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the maximum true vapor pressure (MTVP) of total organic HAP at the storage temperature is ≥5.2 kPa and <76.6 kPa.	a. Comply with the requirements of subpart WW of this part;	i. All required seals must be installed by the compliance date in § 63.11494.
	b. Reduce total organic HAP emissions by ≥95 percent by weight by operating and maintaining a closed-vent system and control device (other than a flare) in accordance with § 63.982(c)(1); or	i. Compliance may be based on either total organic HAP or TOC; ii. Comply with the management practice inspection requirements in § 63.11495 for the closed-vent system; iii. When the term storage vessel is used in subpart SS of this part, the term storage tank, surge control vessel, or bottoms receiver, as defined in § 63.11502 of this subpart, applies; and iv. The requirements do not apply during periods of planned routine maintenance of the control device, as specified in § 63.11497(b).
	c. Reduce total HAP emissions by operating and maintaining a closed-vent system and a flare in accordance with § 63.982(b); or	i. The requirements do not apply during periods of planned routine maintenance of the flare, as specified in § 63.11497(b); and ii. When the term storage vessel is used in subpart SS of this part, it means storage tank, surge control vessel, or bottoms receiver, as defined in § 63.11502 of this subpart.
	d. Vapor balance in accordance with § 63.2470(e); or	i. Not applicable.
	e. Route emissions to a fuel gas system or process in accordance with the requirements in § 63.982(d) and the requirements referenced therein.	i. When the term storage vessel is used in subpart SS of this part, it means storage tank, surge control vessel, or bottoms receiver, as defined in § 63.11502.
2. Storage tank with a design capacity ≥20,000 gallons and <40,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the MTVP of total organic HAP at the storage temperature is ≥27.6 kPa and <76.6 kPa.	a. Comply with one of the options in Item 1 of this table.	i. The information specified above for Items 1.a., 1.b., 1.c., 1.d, and 1.e, as applicable.
3. Storage tank with a design capacity ≥20,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the MTVP of total organic HAP at the storage temperature is ≥76.6 kPa.	a. Comply with option b, c, d, or e in Item 1 of this table.	i. The information specified above for Items 1.b., 1.c., 1.d, and 1.e, as applicable.
4. Storage tank described by Item 1, 2, or 3 in this table and emitting a halogenated vent stream that is controlled with a combustion device.	a. Reduce emissions of hydrogen halide and halogen HAP by ≥95 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv by using a halogen reduction device after the combustion device according to the requirements in § 63.11496(d); or	

TABLE 5 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS AND COMPLIANCE REQUIREMENTS FOR STORAGE TANKS—Continued

For each * * *	You must * * *	Except * * *
	b. Reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to ≤20 ppmv by using a halogen reduction device before the combustion device according to the requirements in § 63.11496(d).	

As required in § 63.11498, you must comply with the requirements for wastewater systems as shown in the following table.

TABLE 6 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS AND COMPLIANCE REQUIREMENTS FOR WASTEWATER SYSTEMS

For each * * *	You must * * *	And you must * * *
1. Wastewater stream	a. Discharge to onsite or offsite treatment	i. Maintain records identifying each wastewater stream and documenting the type of treatment that it receives. Multiple wastewater streams with similar characteristics and from the same type of activity in a CMPU may be grouped together for recordkeeping purposes.
2. Wastewater stream containing partially soluble HAP at a concentration ≥10,000 ppmw and separate organic and water phases.	a. Use a decanter, steam stripper, thin film evaporator, or distillation unit to separate the water phase from the organic phase(s); or	i. For the water phase, comply with the requirements in Item 1 of this table, and ii. For the organic phase(s), recycle to a process, use as fuel, or dispose as hazardous waste either onsite or offsite, and iii. Keep records of the wastewater streams subject to this requirement and the disposition of the organic phase(s).
	b. Hard pipe the entire wastewater stream to onsite treatment as a hazardous waste, or hard pipe the entire wastewater stream to a point of transfer for offsite treatment as a hazardous waste.	i. Keep records of the wastewater streams subject to this requirement and the disposition of the wastewater streams.

As required in § 63.11498(a), you must comply with emission limits for wastewater streams that contain the partially soluble HAP listed in the following table.

TABLE 7 TO SUBPART VVVVVV OF PART 63—PARTIALLY SOLUBLE HAP

Partially soluble HAP name	CAS No.
1. 1,1,1-Trichloroethane (methyl chloroform)	71556
2. 1,1,2,2-Tetrachloroethane	79345
3. 1,1,2-Trichloroethane	79005
4. 1,1-Dichloroethylene (vinylidene chloride)	75354
5. 1,2-Dibromoethane	106934
6. 1,2-Dichloroethane (ethylene dichloride)	107062
7. 1,2-Dichloropropane	78875
8. 1,3-Dichloropropene	542756
9. 2,4,5-Trichlorophenol	95954
10. 1,4-Dichlorobenzene	106467
11. 2-Nitropropane	79469
12. 4-Methyl-2-pentanone (MIBK)	108101
13. Acetaldehyde	75070
14. Acrolein	107028
15. Acrylonitrile	107131
16. Allyl chloride	107051
17. Benzene	71432

TABLE 7 TO SUBPART VVVVVV OF PART 63—PARTIALLY SOLUBLE HAP—Continued

Partially soluble HAP name	CAS No.
18. Benzyl chloride	100447
19. Biphenyl	92524
20. Bromoform (tribromomethane)	75252
21. Bromomethane	74839
22. Butadiene	106990
23. Carbon disulfide	75150
24. Chlorobenzene	108907
25. Chloroethane (ethyl chloride)	75003
26. Chloroform	67663
27. Chloromethane	74873
28. Chloroprene	126998
29. Cumene	98828
30. Dichloroethyl ether	111444
31. Dinitrophenol	51285
32. Epichlorohydrin	106898
33. Ethyl acrylate	140885
34. Ethylbenzene	100414
35. Ethylene oxide	75218
36. Ethylidene dichloride	75343
37. Hexachlorobenzene	118741
38. Hexachlorobutadiene	87683
39. Hexachloroethane	67721
40. Methyl methacrylate	80626
41. Methyl-t-butyl ether	1634044
42. Methylene chloride	75092

TABLE 7 TO SUBPART VVVVVV OF PART 63—PARTIALLY SOLUBLE HAP—Continued

Partially soluble HAP name	CAS No.
43. N-hexane	110543
44. N,N-dimethylaniline	121697
45. Naphthalene	91203
46. Phosgene	75445
47. Propionaldehyde	123386
48. Propylene oxide	75569
49. Styrene	100425
50. Tetrachloroethylene (perchloroethylene)	127184
51. Tetrachloromethane (carbon tetrachloride)	56235
52. Toluene	108883
53. Trichlorobenzene (1,2,4-)	120821
54. Trichloroethylene	79016
55. Trimethylpentane	540841
56. Vinyl acetate	108054
57. Vinyl chloride	75014
58. Xylene (m)	108383
59. Xylene (o)	95476
60. Xylene (p)	106423

As required in § 63.11499, you must comply with the requirements for heat exchange systems as shown in the following table.

TABLE 8 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS AND COMPLIANCE REQUIREMENTS FOR HEAT EXCHANGE SYSTEMS

For * * *	You must * * *	Except * * *
1. Each heat exchange system with a cooling water flow rate ≥8,000 gal/min and not meeting one or more of the conditions in § 63.104(a).	a. Comply with the monitoring requirements in § 63.104(c), the leak repair requirements in § 63.104(d) and (e), and the recordkeeping and reporting requirements in § 63.104(f); or	i. The reference to monthly monitoring for the first 6 months in § 63.104(c)(1)(iii) does not apply. Monitoring shall be no less frequent than quarterly; ii. The reference in § 63.104(f)(1) to record retention requirements in § 63.103(c)(1) does not apply. Records must be retained as specified in §§ 63.10(b)(1) and 63.11501(c); and iii. The reference in § 63.104(f)(2) to "the next semi-annual periodic report required by § 63.152(c)" means the next semi-annual compliance report required by § 63.11501(f).
	b. Comply with the heat exchange system requirements in § 63.104(b) and the requirements referenced therein.	i. Not applicable.

As required in § 63.11501(a), you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) as shown in the following table.

TABLE 9 TO SUBPART VVVVVV OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART VVVVVV

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)–(a)(12) (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e).	Applicability	Yes.	
63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3), (c)(4), (d).	Reserved	No.	
63.2	Definitions	Yes.	
63.3	Units and Abbreviations	Yes.	
63.4	Prohibited Activities and Circumvention	Yes.	
63.5	Preconstruction Review and Notification Requirements.	Yes.	
63.6(a), (b)(1)–(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1)(iii), (g), (i), (j).	Compliance with Standards and Maintenance Requirements.	Yes.	
63.6(b)(6), (c)(3), (c)(4), (d), (h)(3), (h)(5)(iv).	Reserved	No.	
63.6 (e)(1)(i) and (ii), (e)(3), and (f)(1)	SSM Requirements	No.	
63.6(h)(1)–(h)(4), (h)(5)(i)–(h)(5)(iii), (h)(6)–(h)(9).		No	Subpart VVVVVV does not include opacity or visible emissions (VE) standards or require a continuous opacity monitoring system (COMS).
63.7(a)(1), (a)(3), (a)(4), (c), (e)(4), and (f)–(h).	Performance Testing Requirements	Yes.	
63.7(a)(2), (b), (d), (e)(1)–(3)	Performance Testing Schedule, Notification of Performance Test, Performance Testing Facilities, and Conduct of Performance Tests.	Yes/No	Requirements apply if conducting test for metal HAP control; requirements in §§ 63.997(c)(1), (d), (e), and 63.999(a)(1) apply, as referenced in § 63.11496(g), if conducting test for organic HAP or hydrogen halide and halogen HAP control device.
63.8(a)(1), (a)(4), (b), (c)(1)–(c)(3), (f)(1)–(5).	Monitoring Requirements	Yes	References to SSM in § 63.8(c) do not apply.
63.8(a)(2)	Monitoring Requirements	No.	
63.8(a)(3)	Reserved	No.	
63.8(c)(4)		No	Continuous parameter monitoring system (CPMS) requirements in 40 CFR part 63, subparts SS and FFFF are referenced from § 63.11496.
63.8(c)(5)		No	Subpart VVVVVV does not require COMS.

TABLE 9 TO SUBPART VVVVVV OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART VVVVVV—Continued

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.8(c)(6)–(c)(8), (d), (e), (f)(6)		Yes	Requirements apply only if you use a continuous emission monitoring system (CEMS) to demonstrate compliance with the alternative standard in § 63.11496(e). References to SSM in § 63.8(d) do not apply.
63.8(g)(1)–(g)(4)		Yes	Data reduction requirements apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e). COMS requirements do not apply. Requirement in § 63.8(g)(2) does not apply because data reduction for CEMS are specified in 40 CFR part 63, subpart FFFF.
63.8(g)(5)		No	Data reduction requirements for CEMS are specified in 40 CFR part 63, subpart FFFF, as referenced from § 63.11496. CPMS requirements are specified in 40 CFR part 63, subparts SS and FFFF, as referenced from § 63.11496.
63.9(a), (b)(1), (b)(2), (b)(4), (b)(5), (c), (d), (e), (i).	Notification Requirements	Yes.	
63.9(b)(3), (h)(4)	Reserved	No.	
63.9(f)		No	Subpart VVVVVV does not contain opacity or VE limits.
63.9(g)		Yes	Additional notification requirement applies only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e).
63.9(h)(1)–(h)(3), (h)(5)–(h)(6)		Yes	Except subpart VVVVVV does not contain opacity or VE limits.
63.9(j)	Change in Information Already Provided.	No	Notification of process changes that affect a compliance determination are required in § 63.11501(d)(4).
63.10(a)	Recordkeeping Requirements	Yes.	
63.10(b)(1)		Yes.	
63.10(b)(2)(i)–(b)(2)(v)		Yes	Any references to SSM do not apply.
63.10(b)(2)(vi), (x), (xi), (xiii)		Yes	Apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e).
63.10(b)(2)(vii)–(b)(2)(ix), (b)(2)(xii), (b)(2)(xiv).		Yes.	
63.10(b)(3)		Yes.	
63.10(c)(1), (c)(5)–(c)(6), (c)(13)–(c)(14)		Yes	Apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e).
63.10(c)(7)–(c)(8), (c)(10)–(c)(12), (c)(15)		Yes	Any reference to SSM does not apply.
63.10(c)(2)–(c)(4), (c)(9)	Reserved	No.	
63.10(d)(1), (d)(2), (d)(4), (e)(1), (e)(2), (f).	Reporting Requirements	Yes.	
63.10(d)(3)		No	Subpart VVVVVV does not include opacity or VE limits.
63.10(d)(5)		No.	
63.10(e)(1)–(e)(2)		Yes	Apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e).
63.10(e)(3)		Yes.	
63.10(e)(4)		No	Subpart VVVVVV does not include opacity or VE limits.
63.11	Control Device Requirements	Yes.	
63.12	State Authorities and Delegations	Yes.	
63.13	Addresses	Yes.	
63.14	Incorporations by Reference	Yes.	
63.15	Availability of Information and Confidentiality.	Yes.	
63.16	Performance Track Provisions	Yes.	

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