ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2008–0334; FRL–8720–8]

RIN 2060–AM19

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

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing national emissions standards for 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 proposed standards and associated requirements for the nine area source categories are combined in one subpart. The proposed emissions standards for new and existing sources are based on EPA's determination regarding the generally available control technology or management practices for the nine area source categories. EPA is co-proposing an alternative to the requirements for process vents emitting metal hazardous air pollutants. The alternative would set a higher size threshold for large metal hazardous air pollutant process vents.

DATES: Comments must be received on or before November 5, 2008, unless a public hearing is requested by October 16, 2008. If a hearing is requested on the proposed rule, written comments must be received by November 20, 2008. Under the Paperwork Reduction Act, comments on the information collection provisions must be received by the Office of Management and Budget (OMB) on or before November 5, 2008.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2008–0334, by one of the following methods:

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail: a-and-r-Docket@epa.gov.*
- *Fax:* (202) 566–9744.
- *Mail:* U.S. Postal Service: send comments to: National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources Docket, Environmental Protection Agency, EPA Docket Center, Mailcode: 2822T, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Please include a total of two copies. We request that a separate copy also be sent to the contact person identified below (see **FOR FURTHER INFORMATION CONTACT**).
- *Hand Delivery:* In person or by courier, deliver comments to: EPA Docket Center, Public Reading Room, EPA West Building, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20004. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OAR–2008–0334. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov,* or e-mail. The *www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *www.regulations.gov,* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources Docket at the EPA Docket and Information Center, 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, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Coatings and Chemicals Group (E143–01), 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 proposed action are shown in the table below. This proposed rule applies to chemical manufacturing operations at any of nine chemical manufacturing area source categories that process, use, produce, or generate any of the following hazardous air pollutants (HAP): 1,3-butadiene; 1,3-dichloropropene; acetaldehyde; chloroform; ethylene dichloride; methylene chloride; hexachlorobenzene; hydrazine; quinoline; or compounds of arsenic, cadmium, chromium, lead, manganese, or nickel. If the proposed standards are applicable to a chemical manufacturing area source, the standards apply to all organic HAP emissions and all metal HAP emissions from all chemical manufacturing operations at the area source. The proposed standards do not apply to hydrogen halide and halogen HAP (i.e., hydrogen chloride, chlorine, and hydrogen fluoride) at affected sources,[1] except when these HAP are generated in combustion-based emission control devices that are used to meet the proposed standards for organic HAP. For additional information about applicability provisions, see section III.A of this preamble.

Industry category	NAICS code [1]	Examples of regulated entities
Chemical manufacturing.	325	Chemical manufacturing area sources that process, use, or produce any of the HAP subject to this subpart except for: (1) Production operations classified in NAICS 325222, 325314, or 325413; (2) production operations 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 (only the manufacture of the photographic chemicals would be regulated); and (5) manufacture of radioactive elements or isotopes, radium chloride, radium luminous compounds, strontium, and uranium.

[1] North American Industry Classification System.
[2] All of the other source categories in NAICS 325 for which other 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 are affected by this action. To determine whether your chemical manufacturing area source would be regulated by this action, you should examine the applicability criteria in 40 CFR 63.11494 of subpart VVVVVV (NESHAP for Chemical Manufacturing Area Sources). 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. What should I consider as I prepare my comments to EPA?

Do not submit information containing CBI to EPA through *www.regulations.gov* or e-mail. Send or deliver information identified as CBI only to the following address: Roberto Morales, OAQPS Document Control Officer (C404–02), Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Docket ID EPA–HQ–OAR–2008–0334. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

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

In addition to being available in the docket, an electronic copy of this proposed action will also be available on the Worldwide Web (WWW) through the Technology Transfer Network (TTN). Following signature, a copy of this proposed 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.

D. When would a public hearing occur?

If anyone contacts EPA requesting to speak at a public hearing concerning the proposed rule by October 16, 2008, we will hold a public hearing on October 21, 2008. If you are interested in attending the public hearing, contact Ms. Janet Eck at (919) 541–7946 to verify that a hearing will be held. If a public hearing is held, it will be held at 10 a.m. at the EPA's Environmental Research Center Auditorium, Research Triangle Park, NC, or an alternate site nearby.

II. Background Information for the Proposed Area Source Standards

A. What is the statutory authority and regulatory approach for the proposed standards?

Section 112(d) of the Clean Air Act (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 emits or

[1] The affected source is the chemical manufacturing operations at area sources in one of the nine source categories subject to this proposed rule. Chemical manufacturing operations include all process equipment and activities that process, use, produce, or generate any of the HAP listed in Table 1 of this subpart. Chemical manufacturing operations also includes all storage tanks, transfer racks, cooling tower systems, wastewater systems, and equipment associated with the production of chemicals at an area source subject to the proposed rule.

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 that, as a result of emissions of 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). 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) 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 implemented these requirements through the Integrated Urban Air Toxics Strategy (64 FR 38715, July 19, 1999). 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), we may elect to promulgate standards or requirements for area sources ''which provide for the use of generally available control technologies or management practices by such sources to reduce emissions of hazardous air pollutants.'' Additional information on generally available control technologies or management practices (GACT) is found in the Senate report on the legislation (Senate report Number 101–228, December 20, 1989), which describes GACT as:

> * * * 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, like this one, 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 proposing these national emission standards in response to a court-ordered deadline that requires EPA to issue standards for 10 area source categories listed pursuant to section 112(c)(3) and (k) by December 15, 2008 (*Sierra Club* v. *Johnson*, no. 01–1537, D.D.C., March 2006). As part of our effort to meet this deadline, we are proposing in this action the NESHAP for the nine area source categories that are described in section II.B of this preamble. Another rulemaking will include standards for the remaining source category that is due in December 2008.

B. What area source categories are affected by the proposed standards?

This proposed NESHAP affects chemical manufacturing operations at nine area source categories: (1) Agricultural Chemicals and Pesticides Manufacturing; (2) Cyclic Crude and Intermediate Production; (3) Industrial Inorganic Chemical Manufacturing; (4) Industrial Organic Chemical Manufacturing; (5) Inorganic Pigments Manufacturing; (6) Miscellaneous Organic Chemical Manufacturing; (7) Plastic Materials and Resins Manufacturing; (8) Pharmaceutical Production; and (9) Synthetic Rubber Manufacturing. The inclusion of each of these source categories on the section 112(c)(3) area source category list is based on 1990 emissions data, as EPA used 1990 as the baseline year for that listing. In this preamble and proposed rule we refer to the nine source categories collectively as chemical manufacturing area sources. Descriptions of the nine source categories are as follows:

Agricultural Chemicals and Pesticides Manufacturing. The agricultural chemicals and pesticides manufacturing source category is designated by NAICS codes 325311 (nitrogenous fertilizer manufacturing), 325312 (phosphatic fertilizer manufacturing), and 325320 (pesticide and other agricultural chemical manufacturing). Products of this industry include nitrogenous and phosphatic fertilizer materials including anhydrous ammonia, nitric acid, ammonium nitrate, ammonium sulfate, urea, phosphoric acid, superphosphates, ammonium phosphates, and calcium metaphosphates. The source category also includes the formulation and preparation of ready-to-use agricultural and household pest control chemicals from technical chemicals or concentrates, the production of concentrates which require further processing before use as agricultural pesticides, and the manufacturing or formulating of other agricultural chemicals such as minor or trace elements and soil conditioners.

Organic Chemical Production. The cyclic crude and intermediate production, industrial organic chemical manufacturing, and miscellaneous organic chemical manufacturing source categories are discussed collectively because there is considerable overlap in the NAICS codes that apply to these source categories. These source categories are designated by NAICS codes 32511 (petrochemical manufacturing), 325132 (synthetic organic dye and pigment manufacturing), 32519 (other basic organic chemical manufacturing), 325221 (cellulosic organic fiber manufacturing), and 3256 (soap, cleaning compound, and toilet preparation manufacturing). The source category also includes organic gases designated by NAICS code 325120 (industrial gas manufacturing), and it includes production of chemicals such as explosives and photographic chemicals designated by NAICS code 3259 (other chemical product and preparation manufacturing).

Raw materials for this industry include, for example, refined petroleum chemicals, coal tars, and wood. The industry manufactures a wide variety of final products as well as numerous chemicals that are used as feedstocks to produce these final products and products in other chemical manufacturing source categories. Examples of types of products include solvents, organic dyes and pigments, plasticizers, alcohols, detergents, and flavorings.

Industrial Inorganic Chemical Manufacturing. The industrial inorganic chemical manufacturing source category includes manufacturing of inorganic gases that are designated by NAICS code 325120 (industrial gas manufacturing), manufacturing of inorganic dyes that are designated by NAICS code 325131 (inorganic dye and pigment manufacturing), and most manufacturing designated by NAICS code 32518 (other basic inorganic chemical manufacturing). Exceptions to

production designated by NAICS code 32518 include carbon black and mercury cell chlor-alkali production, which are separate source categories.

Inorganic Pigment Manufacturing. Inorganic pigments are part of NAICS code 325131 (Inorganic Dye and Pigment Manufacturing). The majority of inorganic pigments are oxides, sulfides, oxide hydroxides, silicates, sulfates, or carbonates that normally consist of single component particles.

The inorganic pigment manufacturing processes can generally be divided between those that use partial combustion and those that use pure pyrolysis. Inorganic pigments generally are used to impart colors to a variety of compounds. They may also impart properties of rust inhibition, rigidity, and abrasion resistance. Inorganic pigments are generally insoluble and remain unchanged physically and chemically when mixed with a carrier.

Pigment manufacturers supply inorganic colors in a variety of forms including powders, pastes, granules, slurries, and suspensions. Pigments are used in the manufacture of paints and stains, printing inks, plastics, synthetic textiles, paper, cosmetics, contact lenses, soaps, detergents, wax, modeling clay, chalks, crayons, artists' colors, concrete, masonry products, and ceramics.

Pharmaceutical Production. The pharmaceutical manufacturing source category consists of chemical production operations that produce drugs and medication. These operations include chemical synthesis (deriving a drug's active ingredient) and chemical formulation (producing a drug in its final form). The source category is designated by NAICS codes 325411 (medicinal and botanical manufacturing), 325412 (pharmaceutical preparation manufacturing), and 325414 (biological product, except diagnostic, manufacturing).

Plastic Materials and Resins Manufacturing. This source category is designated by NAICS code 325211 (plastics material and resin manufacturing). Examples of products in this source category include epoxy resins, nylon resins, phenolic resins, polyesters, polyethylene resins, and styrene resins. The source category does not include polyvinyl chloride and copolymers production, which is a separate source category.

Synthetic Rubber Manufacturing. The synthetic rubber manufacturing source category is designated by NAICS code 325212 (synthetic rubber manufacturing). Facilities in this source category manufacture synthetic rubber or vulcanizable elastomers by polymerization or copolymerization. For this source category, an elastomer is defined as a rubber-like material capable of vulcanization, such as copolymers of butadiene and styrene, copolymers of butadiene and acrylonitrile, polybutadienes, chloroprene rubbers, and isobutylene-isoprene copolymers.

We listed Cyclic Crude and Intermediate Production, Industrial Inorganic Chemical Manufacturing, Industrial Organic Chemical Manufacturing, Plastic Materials and Resins Manufacturing, and Synthetic Rubber Manufacturing as area source categories under CAA section 112(c)(3) as part of the 1999 Integrated Urban Strategy (64 FR 38721, July 19, 1999). On June 26, 2002, we amended the area source category list by adding source categories, including Agricultural Chemicals and Pesticides Manufacturing, Miscellaneous Organic Chemical Manufacturing, and Pharmaceutical Production (67 FR 43112, 43113). On November 22, 2002, we added Inorganic Pigments Manufacturing to the area source category list (67 FR 70427, 70428). These nine area source categories encompass nearly all of the chemical manufacturing industry described in NAICS 325.

The urban HAP that must be regulated at chemical manufacturing area sources to achieve the section 112(c)(3) requirement to regulate 90 percent of urban HAP are:

- 1,3-butadiene
- 1,3-dichloropropene
- acetaldehyde
- chloroform
- ethylene dichloride
- methylene chloride
- hexachlorobenzene
- hydrazine
- quinoline
- HAP metals: compounds of arsenic, cadmium, chromium, lead, manganese, and nickel

These urban HAP are hereafter collectively referred to as the ''chemical manufacturing urban HAP''. The organic HAP and hydrazine, which is controlled in the same manner as the organic HAP, are hereafter referred to as the ''chemical manufacturing organic urban HAP''. The metal HAP are hereafter referred to as the ''chemical manufacturing metal urban HAP.''

Based on information in the National Emissions Inventory (NEI), the Toxics Release Inventory (TRI), and other supplemental information, we estimate that about 1,700 facilities are chemical manufacturing area sources. Approximately 450 of these area sources emit at least one of the chemical manufacturing urban HAP. We estimate that, collectively, the chemical manufacturing area sources emit about 450 tpy of the chemical manufacturing organic urban HAP (including 0.4 tpy of hydrazine) and 51 tpy of the chemical manufacturing metal urban HAP. Total organic and metal HAP emissions from the 450 chemical manufacturing area sources that emit any of the chemical manufacturing urban HAP are estimated to be about 1,450 tons/yr.

C. How did we gather information for this proposed standard?

We gathered information for this proposed rule from the 2002 NEI, the 2002 and 2004 TRI; company Web sites, published literature, and current State and Federal regulations.

We developed an initial list of area sources in these categories based on facilities in the 2002 NEI database that were designated as area sources and classified with any of the SIC codes for chemical manufacturing. We added facilities classified as major sources in the NEI database to the list of area sources if reported emissions were much less than major source threshold, and no other information was available to confirm the facility as a major source. We also reviewed the TRI database and we identified facilities classified with any of the chemical manufacturing standard industrial classification (SIC) codes that had emissions less than half the major source thresholds and added these facilities to the list of area sources if they were not also listed in the NEI database. We also removed facilities from the list based on information from permits, company Web sites, and other available resources that showed a facility was closed, did not manufacture chemicals, or is a major source already subject to MACT standards.

Emission records in the NEI database were determined to be applicable to chemical manufacturing operations if the source classification code (SCC) was specific to one of the chemical manufacturing industries (e.g., pharmaceuticals manufacturing). We considered other records to be applicable if the SIC code or the NEI database MACT code was applicable for the chemical manufacturing industry, and the SCC was not clearly for non-chemical manufacturing operations such as external combustion or solvent cold cleaners.

We found that many of the records in the NEI could not be readily assigned to one of the six types of emission points subject to the proposed rule. Therefore, to estimate emissions by emission point we used only the total organic HAP emissions and total metal HAP

emissions (and corresponding urban HAP fractions) for each facility. We then disaggregated the total organic HAP emissions per facility to process vents, storage tanks, equipment leaks, and wastewater systems assuming the average distribution for major sources also applies to area sources. We estimated organic HAP emissions from transfer operations and cooling towers separately.

Although emissions from transfer operations may have been included in the NEI data, information from major sources indicates that these emissions are small relative to emissions from the other emission points. Furthermore, many chemical manufacturing facilities do not ship liquids containing organic HAP by rail or tank truck. Therefore, we determined it was simpler to estimate emissions from transfer operations separately. To estimate these emissions, we assumed half of the area sources that emit organic HAP have transfer operations and used the model transfer racks that were developed for facilities that are subject to the National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) for Process Vents, Storage Vessels, Transfer Operations, and Wastewater, commonly known as the ''hazardous organic NESHAP'' (HON) in 40 CFR part 63, subpart G. Because the estimated emissions are so small, the impact of adding them to the NEI emissions estimate of nationwide emissions from the source category is negligible.

Few NEI records were clearly for cooling towers, and most of those focused on chlorine emissions, presumably from the use of biocides. Organic HAP emissions from cooling towers occur only as a result of a malfunction in heat exchange equipment that allows process fluid to leak into the recirculating cooling water and then volatilize as the contaminated water falls through the cooling tower. Because the emissions are the result of malfunctions, we assumed that they are not included in the NEI. Most area sources also are not monitoring cooling tower systems for leaks. However, if operation at area sources is similar to operation at major sources, it is likely that cooling tower systems are a significant source of organic HAP emissions. Therefore, we estimated emissions from cooling tower systems based on typical recirculation rates for cooling towers at chemical manufacturing sources and assumed leak frequencies and concentrations.

We assumed metal HAP are emitted only from process vents. These emissions may be in either vapor or particulate form depending on the temperature of the unit operation. They are not emitted from other emission points because emissions from other emission points depend largely on evaporation of the pollutant. As metal-based compounds have very low vapor pressures, they are unlikely to be emitted in significant amounts from other emission points.

We reviewed State and other Federal regulations that apply to the area and major sources in the source categories for information to establish subcategories and control requirements for some of the emission points. For example, the new source performance standards (NSPS) for volatile organic liquid storage vessels in 40 CFR part 60, subpart Kb apply to storage tanks at some area sources. Similarly, a regulation established by the Texas Commission on Environmental Quality which requires monitoring of recirculating water in cooling tower systems, also applies to some area sources. We also reviewed standards for other source categories that would be appropriate for and transferable to operations at chemical manufacturing area sources as well. For example, we determined that management practices applicable to gasoline loading racks at gasoline distribution area sources are equally feasible for transfer operations at chemical manufacturing area sources.

D. What are the production processes, emission points, and available controls?

The chemical manufacturing industry produces a wide variety of chemicals using processes that involve numerous types of unit operations. Example operations include reaction, mixing, fermentation, extraction, distillation, crystallization, washing, filtering, drying, grinding, and calcining. Pollutants are emitted from these operations through process vents. Process vent emissions are generated from a variety of activities including equipment vessel purges with air or nitrogen, vapor displacement due to filling a vessel with liquid, gas evolution from reactions, applying a vacuum to a vessel, heating the contents of a vessel, depressurizing a vessel, and drying a solid product. The proposed rule would regulate three types of process vents: Continuous process vents; batch process vents; and metal HAP process vents. Pollutants are also emitted from five other types of equipment that are associated with or support a process: Storage tanks, cooling tower systems, equipment leaks, transfer operations, and wastewater systems. Each of the types of emission points and potential controls are described in the following sections.

Continuous process vents. A continuous process vent is defined as the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream that meets three conditions: (1) It contains organic HAP, (2) some or all of the gas stream originates from a unit operation that operates continuously, and (3) the gas stream flow is continuous. Typical controls include add-on control devices such as thermal incinerators, condensers, and carbon adsorbers.

Batch process vents. A batch process vent is defined as a point of discharge from a single unit operation or from a common header that connects multiple unit operations through which an organic HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Specifically excluded from the proposed definition of a batch process vent are continuous process vents and any other emission points that are subject to other standards in the proposed rule (e.g., a storage tank or wastewater treatment unit), gas streams routed to a fuel gas system, and certain elephant trunk systems. Typical controls include add-on control devices such as thermal incinerators, condensers, and carbon adsorbers.

Metal HAP process vents. A metal HAP process vent is defined as the point of discharge to the atmosphere (or inlet to a control device, if any) of a metal HAP-containing gas stream from any unit operation in chemical manufacturing operations at an affected source. If both metal HAP and organic HAP are emitted, a metal HAP process vent may also be a continuous process vent or batch process vent. Typical controls include add-on control devices that control particulate matter (PM), such as fabric filters and electrostatic precipitators.

Storage tank. A storage tank is a tank or other vessel that is used to store organic or inorganic HAP that are used in or produced by the chemical manufacturing operations, except for the following: Vessels permanently attached to motor vehicles, pressure vessels, vessels storing organic liquids that contain HAP only as impurities, wastewater storage tanks, and process tanks. Primary uses of storage tanks are to store raw materials, products, and wastes. Bottoms receivers and surge control vessels are also considered to be storage tanks. Emissions from storage tanks occur as a result of vapor displacement when the tank is being filled and as a result of vapor expansion due to diurnal temperature changes. Numerous controls are available for

storage tanks. These include the use of internal or external floating roofs, vapor balancing to the tank truck or other vessel from which the storage tank is filled, and routing emissions through a closed-vent system to a control device such as a thermal incinerator.

Cooling tower systems. Cooling towers are used to cool warm water from heat exchangers that is then recirculated to the heat exchangers. Process fluid that leaks into the recirculating water in the heat exchanger may be volatilized and emitted to the atmosphere in the cooling tower. Controls generally involve a monitoring program to identify elevated levels of organic compounds or a surrogate for the organic compounds in the recirculating water. When a leak is detected, the defect in the heat exchanger must be repaired to eliminate the leak and the emissions.

Equipment Leaks. Equipment leaks occur from pumps, the packing around valve stems in valves, flanges and connectors that are not tight, pressure relief valves, open-ended lines, and sampling connections. For pumps, valves, and connectors, controls consist of leak detection and repair (LDAR) programs in which the equipment is inspected on a specified schedule. The inspections may be either sensory-based or instrument-based. The programs also define a leak differently, but all require repair of detected leaks. Controls for other types of equipment usually involve the use of certain types of equipment. For example, open-ended lines must be capped, and pressure relief devices must be equipped with rupture disks or connected to a closed-vent system that routes releases to a control device such as a flare.

Transfer operations. Transfer operations are defined as the loading into tank trucks and rail cars of organic liquids that contain one or more organic HAP, as defined in Section 112(b) of the CAA, from a loading rack (also known as a transfer rack) at an affected source. A loading rack is the system used to fill tank trucks and rail cars at a single geographic site and includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves. One widely used emission control technique is submerged loading, which consists of either filling through a drop tube that extends from the top of the vessel being loaded to within a few inches of the bottom of the vessel or by bottom loading through a built-in fill connection near the bottom of the vessel. Another available control is vapor balancing, which routes displaced vapors from the tank truck or railcar back to the storage tank from which it is being loaded. Routing displaced vapors through a closed-vent system to a control device is another option.

Wastewater systems. Wastewater is defined as water that contains at least one of the 76 organic HAP listed in Table 9 of 40 CFR part 63, subpart G, and is discarded from a chemical manufacturing process or control device, except for the following: (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 includes both process wastewater and maintenance wastewater. Process wastewater is wastewater which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. Maintenance wastewater is wastewater that is generated by the draining of process fluid from components in a chemical manufacturing process into an individual drain system prior to or during maintenance activities. A wastewater system is the equipment in which the wastewater is conveyed and treated. Aerobic biological treatment to degrade the organic compounds is the most common type of treatment. Other types of treatment that remove organics include anaerobic biological treatment, incineration of the wastewater, and steam or air stripping followed by condensation or other techniques to recover or destroy the stripped compounds. Controls also include some form of emission suppression techniques between the discharge from the process and the treatment unit. Examples of emission suppression include water seals on individual drains, covers on junction boxes and holding or treatment tanks, and closed sewer lines. Some regulations also prohibit the discharge of multi-phase wastewater streams; these streams must be separated into a water layer and one or more organic layers by gravity separation techniques, and only the water phase may be discharged to the wastewater system.

III. Summary of the Proposed Standards

A. Do the proposed standards apply to my source?

This proposed NESHAP applies to each existing or new facility that is an area source of HAP and has chemical manufacturing operations that process, use, produce, or generate any of the 15 chemical manufacturing urban HAP. Chemical manufacturing operations would be defined as the facility-wide collection of chemical manufacturing processing equipment and associated storage tanks, cooling tower systems, transfer operations, and wastewater systems. The chemical manufacturing operations are the affected source.

The nine chemical manufacturing area source categories include most of the source categories that are classified under NAICS 325. The proposed rule, therefore, specifies applicability based on all chemical manufacturing operations that are used to produce chemicals classified under NAICS 325 except as described below. We believe this approach is more straightforward than listing all of the processes or NAICS codes that are subject because it is a more concise list, it ensures that no processes are inadvertently left off the list, and it automatically applies to new processes developed in the future. Manufacturing operations classified by NAICS codes 325222, 325314, and 325413 are not subject to this proposal because these operations were not included in the listing of source categories as part of the Urban Strategy. The proposal does not apply to mercury cell chlor-alkali plants, chemical preparations, paint and allied products, polyvinyl chloride and copolymers production, carbon black, chemical manufacturing: chromium compounds, and acrylic and modacrylic fibers production, because those area source categories are subject to other section 112(d) NESHAP. In addition, specific manufacturing processes or chemical processes that are not subject to the proposed rule include:

(1) Manufacture of radioactive elements or isotopes, radium chloride, radium luminous compounds, strontium, and uranium;

(2) Manufacture of photographic film, paper, and plate where the material is coated with or contains chemicals;

(3) Fabricating operations (such as spinning or compressing a solid polymer into its end use); compounding operations (in which blending, melting, and resolidifying of a solid polymer product occur for the purpose of incorporating additives, colorants, or stabilizers); 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) are generally not subject to this proposal. Such operations are subject if

they involve processing with a HAP solvent or if an intended purpose of the operation is to remove residual HAP monomer;

(4) Research and development facilities as defined in section 112(c)(7) of the CAA;

(5) Quality assurance/quality control laboratories;

(6) Boilers and incinerators (not used to comply with emission standards in the proposed rule), chillers and other refrigerator 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 production of the product are not considered chemical manufacturing operations. The above operations are not covered by this rule because they were not part of the inventory on which we based the listing for the nine area source categories at issue in this rule.

To be subject to the proposed standards, the chemical manufacturing operations also must process, use, produce, or generate any of the 15 chemical manufacturing urban HAP. If the proposed standards are applicable to a chemical manufacturing area source, the proposed standards apply to all organic HAP emissions and all metal HAP emissions from chemical manufacturing operations at the area source. We are proposing that the standards for each type of emission point apply to all of the emission points of that type in an affected source, including those that do not emit a chemical manufacturing urban HAP (e.g., an area source may have two storage tanks, one containing methanol and the other containing methylene chloride, and, under the proposed rule, both would be part of the affected source and subject to the storage tank standards).

We recognize that standards limited to the emission points that emit the chemical manufacturing urban HAP at the nine area source categories would be sufficient to satisfy the requirement in section 112(c)(3) and (k)(3)(B), that EPA regulate sufficient source categories to account for 90 percent of the urban HAP emissions. However, section 112 of the CAA does not prohibit the Agency from regulating other HAP emitted from area sources listed pursuant to section 112(c)(3). Section 112(d)(5) states that for area sources listed pursuant to section 112(c), the Administrator may, in lieu of section 112(d)(2) ''MACT'' standards, promulgate standards or requirements ''applicable to sources'' which provide for the use of GACT or management practices ''to reduce emissions of hazardous air pollutants.'' This provision does not limit the Agency's authority to regulating only those urban HAP emissions for which the category is needed to achieve the 90 percent requirement in section 112(c)(3).

We are proposing to apply the standards in this manner for several reasons. The management practices proposed in the rule are equally effective at controlling emissions of HAP other than the chemical manufacturing urban HAP and there is little, if any, additional cost for implementing those management practices for all emissions sources (e.g., for process vents the annual cost of the management practices is less than $300/yr). In addition, where add-on controls are required under this rule, those controls will reduce not only emissions of the chemical manufacturing HAP, but also emissions of the organic and metal HAP that are not chemical manufacturing urban HAP. Applying the proposed standards only to the chemical manufacturing urban HAP would require the facility to speciate HAP as opposed to measuring total HAP when demonstrating compliance. Furthermore, many facilities route emissions from process vessels to common vents and it would not be practical to control only urban HAP emissions from those vents. We are also proposing to apply the standard to all HAP because many of the area sources emit a significant amount of HAP in addition to the chemical manufacturing urban HAP (for example, the nationwide ratio of total organic HAP to chemical manufacturing organic HAP at affected sources is more than 3:1), and all HAP are hazardous to human health and the environment.

We have determined that sources will not have to install different controls or implement different management practices to implement the proposed standards for all HAP and, as part of the GACT analysis, we have found that the costs of applying the proposed standards to all HAP are reasonable. For all of these reasons, we propose to apply these standards to all chemical manufacturing operations at the chemical manufacturing area source. We request comment on the environmental, cost, and economic impacts of this approach.

Controlling halogenated HAP emissions by burning in a combustion device, as the proposed rule provides, will generate hydrogen halide and halogen HAP. Several NESHAP (40 CFR part 63, subparts G, GGG, MMM, and FFFF) require control of hydrogen halide and halogen HAP when a combustion device is used to control halogenated vent streams. The proposed standards apply to hydrogen halide and halogen HAP (i.e., hydrogen chloride, chlorine, and hydrogen fluoride), but only when they are generated in a combustion device that is used to meet a proposed standard. The proposed controls for the chemical manufacturing urban HAP generally would achieve little or no co-control of the hydrogen halide and halogen HAP. Simply converting one HAP to another does not protect human health or the environment. Therefore, these by-products of combustion are also subject to proposed standards.

B. When must I comply with the proposed standards?

Some facilities will have to design, purchase, and install add-on control equipment to meet the proposed requirements. We are therefore proposing that owners or operators of existing sources comply with all the requirements of the area source NESHAP by 3 years after the date of publication of the final rule in the **Federal Register**. A new affected source would be required to comply by the date of publication of the final rule in the **Federal Register** or upon initial startup, whichever is later.

Area sources subject to the rule would not be required to obtain a title V operating permit. Our reasons for exempting chemical manufacturing area sources from the requirement to obtain a title V permit are discussed in section IV.D of this preamble.

C. What are the proposed emissions standards?

We are proposing management practices as GACT for all process vents, storage tanks, equipment leaks, transfer operations, and cooling tower systems. For specified subcategories, we are proposing management practices and emissions limitations or other requirements as GACT for continuous process vents, batch process vents, metal HAP process vents, cooling tower systems, and storage tanks. We are proposing emission standards that consist of two treatment requirements for one subcategory of wastewater streams, and we are proposing a single treatment requirement for a second subcategory of wastewater streams. All of the proposed standards are the same for new and existing affected sources.

1. Continuous Process Vents

As explained in section IV.A, we distinguished continuous process vents

based on a total resource effectiveness (TRE) index value of 1, which we believe is a reasonable proxy for the size of the vent. Specifically, we created two subcategories for continuous process vents: Those continuous process vents with a TRE value less than or equal to one and those with a TRE greater than one. The TRE is a measure of HAP emissions and control costs and is normalized to a value of 1.0 for a cost-effectiveness of $3,000 per ton of HAP reduction. Facilities would determine the TRE index value either at the point of discharge to the atmosphere or after the last recovery device using procedures specified in 40 CFR 63.115 of the HON.

We are proposing that owners and operators implement management practices for all continuous process vents. The management practices consist of requirements to check the integrity of the process equipment once per quarter, to repair process equipment as necessary to eliminate leaks, and to operate the process equipment with all openings or access points covered or with closure mechanisms in the closed position, except as necessary for operator access. If a leak is detected, the owner or operator would be required to repair it within 15 calendar days of detection, unless a reasonable justification for delay exists and is documented. The owner or operator must provide notification of a delay in repair in the semiannual report. These management practices are the only proposed emission requirements for the subcategory of continuous process vents with a TRE value greater than 1.

For the subcategory of continuous process vents with a TRE value less than or equal to 1, we are proposing that the owner or operator reduce emissions of organic HAP (including hydrazine) by 95 percent by weight or greater or to 20 parts per million by volume (ppmv) or less. Because flares achieve greater than 95 percent reduction, the owner or operator may reduce emissions of organic HAP by routing emissions through a closed vent system to a flare. However, the proposed rule does not allow a flare to be used to control halogenated emission streams. As an alternative to demonstrating compliance with the standards specified above, the proposed rule allows an owner or operator to comply with the alternative standard in 40 CFR part 63, subpart FFFF (i.e., the miscellaneous organic NESHAP [MON]). Under the alternative standard, an owner or operator would be required to route the process vent streams through a closed vent system to a control device that meets a specified outlet concentration and demonstrate compliance using a continuous emission monitoring system (CEMS). For a combustion device, the proposed rule requires that organic HAP emissions be reduced to an outlet concentration of 20 ppmv measured as total organic compounds (TOC), and hydrogen halide or halogen HAP generated in the combustion device be reduced to an outlet concentration of 20 ppmv or less. For a noncombustion device, organic HAP would be reduced to an outlet concentration of 50 ppmv or less measured as total organic HAP. In the MON, this alternative is allowed for both continuous process vents and batch process vents and is equivalent to the 98 percent control requirement in the MON. The same alternative standard is in the NESHAP for pharmaceuticals production and pesticide active ingredient production (40 CFR part 63, subparts GGG and MMM).

2. Batch Process Vents

As explained in section IV.A, we considered the different sizes and types of batch process vents in chemical manufacturing operations and established subcategories based on annual emissions to reflect the combined factors. Specifically, we created two subcategories for batch process vents: Those batch process vents that emit 19,000 lb/yr or greater of organic HAP and those that emit less than 19,000 lb/yr of organic HAP. Facilities would determine annual emissions using test data or procedures in subparts GGG and FFFF of part 63 or estimating emissions based on the emissions for the worst-case batch process.

We are proposing that owners and operators implement management practices for all batch process vents. The management practices consist of requirements to check the integrity of the process equipment once per quarter, to repair process equipment as necessary to eliminate leaks, and to operate the process equipment with all openings or access points covered or with closure mechanisms in the closed position, except as necessary for operator access. If a leak is detected, the owner or operator would be required to repair it within 15 calendar days of detection, unless a reasonable justification for delay exists and is documented. The owner or operator must provide notification of a delay in repair in the semiannual report. These management practices are the only proposed emission requirements for the subcategory of batch process vents emitting less than 19,000 lb/yr of organic HAP.

In addition to the management practices applicable to both subcategories, we are proposing for the subcategory of batch process vents with total uncontrolled organic HAP emissions equal to or greater than 19,000 lb/yr that the owner or operator either: (1) Reduce the collective uncontrolled organic HAP emissions (including hydrazine) from the sum of all batch process vents within the chemical manufacturing operations by 90 percent by weight or greater or to 20 ppmv or less; (2) route emissions from batch process vents containing at least 90 percent of the uncontrolled total organic HAP through a closed vent system to a flare (except for halogenated vent streams); or (3) comply with combinations of the requirements in items 1 and 2 for different groups of batch process vents. As an alternative, the proposed rule allows an owner or operator to comply with the alternative standard as described in section III.C.1 of this preamble. These alternatives provide equivalent levels of emission control.

Facilities would estimate the sum of the typical uncontrolled organic HAP emissions for all emission episodes using equations and other procedures specified in 40 CFR part 63, subpart FFFF and the National Emission Standards for Pharmaceuticals Production (40 CFR part 63, subpart GGG). The proposed rule includes 3 alternatives to the requirement to estimate batch process vent emissions from each process. First, although actual emissions may vary from one batch to another for a given process, the proposed rule allows the owner or operator to estimate emissions for a typical batch and assume those emissions apply to each batch. Second, as an alternative to estimating emissions for a standard batch of each process, the proposed rule allows the owner or operator to determine emissions only for a typical batch in the process that has the highest emissions and assume that those emissions apply to batches in all other processes. Process knowledge, engineering assessment, or test data may be used to identify the worst case process. Third, if an owner or operator can demonstrate that organic HAP usage is less than 19,000 lb/yr and this is the only HAP in the process, then HAP emissions also must be less than 19,000 lb/yr. Thus, the proposed rule does not require an owner or operator to estimate emissions if this condition is met.

3. Metal HAP Process Vents

As explained in section IV.A, we considered the different sizes and types of metal HAP process vents in chemical

manufacturing operations and established subcategories based on annual emissions of metal HAP to reflect the combined factors. Specifically, we created two subcategories for metal HAP process vents based on a threshold level of emissions: Those metal HAP process vents that emit above the threshold as one subcategory and below the threshold as a second subcategory. We are co-proposing alternative process vent thresholds of 100 lb/yr and 400 lb/yr of metal HAP. Facilities would determine the mass metal HAP emissions rate by using process knowledge, engineering assessments, or test data.

We are proposing that owners and operators implement management practices for all metal HAP process vents. The management practices consist of requirements to check the integrity of the process equipment once per quarter, to repair process equipment as necessary to eliminate leaks, and to operate the process equipment with all openings or access points covered or with closure mechanisms in the closed position, except as necessary for operator access. If a leak is detected, the owner or operator would be required to repair it within 15 calendar days of detection, unless a reasonable justification for delay exists and is documented. The owner or operator must provide notification of a delay in repair in the semiannual report. These management practices are the only proposed emission requirements for the subcategory of metal HAP process vents emitting below the threshold (less than 100 lb/yr or 400 lb/yr of metal HAP).

In addition to the management practices applicable to both subcategories, we are proposing for the subcategory with total uncontrolled metal HAP emissions from metal HAP process vents equal to or greater the threshold (100 lb/yr or 400 lb/yr of metal HAP) that the owner or operator reduce uncontrolled emissions of metal HAP by 95 percent by weight or greater.

To determine whether the percent reduction requirement applies, the owner or operator would be required to determine and sum the emissions from all of the metal HAP process vents. The proposed rule allows the use of process knowledge, engineering assessment, or test data to determine the mass emission rate.

4. Storage Tanks

As explained in section IV.A, we considered the different sizes of storage tanks and subcategorized on that basis. Specifically, we created two subcategories for storage tanks: Large storage tanks are those that meet the size and maximum true vapor pressure (MTVP) thresholds for control in the NSPS for volatile organic liquid storage vessels in 40 CFR part 60, subpart Kb, and small storage tanks are those that do not meet the subpart Kb thresholds.

We are proposing that owners and operators implement management practices for all storage tanks that store organic HAP. The management practices consist of requirements to check the integrity of the storage tanks once per quarter, to repair tanks as necessary to eliminate leaks, and to operate the tanks with all openings or access points covered or with closure mechanisms in the closed position, except as necessary for operator access. If a leak is detected, the owner or operator would be required to repair it within 15 calendar days of detection, unless a reasonable justification for delay exists and is documented. The owner or operator must provide notification of a delay in repair in the semiannual report. These management practices are the only proposed emission requirements for the subcategory of small storage tanks.

In addition to the management practices applicable to both subcategories, we propose that for the subcategory of large storage tanks that owners and operators comply with the control requirements in subpart Kb. The control options in 40 CFR part 60, subpart Kb are to operate and maintain a fixed roof in combination with an internal floating roof, use an external floating roof, or to route emissions through a closed vent system to a control device that reduces organic HAP emissions by 95 percent or greater.

5. Cooling Tower Systems

We are proposing that owners and operators implement management practices for all cooling tower systems in which recirculating water is used in heat exchangers to cool process fluid that contains organic HAP. We are proposing a management practice for a subcategory of small cooling tower systems and an emission limit for a subcategory of large cooling tower systems.

For the subcategory of small cooling tower systems, those with recirculating water flow rates less than 8,000 gal/min, we are proposing that the owner or operator inspect the cooling water system quarterly for hydrocarbon odor, discolored water, or other evidence of hydrocarbons in the cooling water. In addition, the owner or operator would be required to prepare and operate in accordance with an operating and maintenance plan that describes actions to be taken in response to different inspection results. If a leak is detected, the owner or operator would be required to repair it (or remove the leaking heat exchanger from service) within 45 calendar days of detection, unless a reasonable justification for delay exists and is documented. The owner or operator must provide notification of a delay in repair in the semiannual report.

For the subcategory of large cooling tower systems, those with recirculating water rates of 8,000 gal/min or greater, we are proposing that the owner or operator monitor the recirculating cooling water using a surrogate indicator of heat exchange system leaks as required in § 63.104(c) and (d) of the HON (40 CFR part 63, subpart F). These provisions would require the owner or operator to prepare and operate in accordance with a monitoring plan that documents the procedures that will be used to detect leaks of process fluids into the cooling water. The types of information to include in the plan would include a description of the parameter(s) to be monitored, rationale for why the selected parameter(s) will reliably indicate a leak, and the level that indicates a leak. When a leak is detected, the owner or operator would be required to repair it (or remove the leaking heat exchanger from service) within 45 calendar days of detection, unless delay of repair is allowed. Delay of repair would be allowed until the next shutdown if the owner or operator documents that emissions from shutdown for repair would cause greater emissions than estimated emissions from allowing the system to continue leaking until the scheduled shutdown.

6. Equipment Leaks

We are proposing that each owner or operator implement management practices for equipment leaks. The management practices consist of quarterly leak inspections of all equipment in organic HAP service. The term ''equipment'' applies to each pump, compressor, agitator, pressure relief device, sampling connection system, open ended valve or line, connector, and instrumentation system in chemical manufacturing operations. To be in organic HAP service, the equipment must either contain or contact a fluid (liquid or gas) that contains one or more of the organic HAP listed in or pursuant to section 112 of the CAA. Leak detection methods using sight, sound, and smell may be used. Under the proposed rule, repair or replacement of leaking equipment is required within 15 days after detection, or the reason for any delay of repair must be documented. The owner or

operator must provide notification of a delay in repair in the semiannual report.

7. Transfer Operations

We are proposing that each owner or operator of an affected source implement management practices for all transfer operations that involve transfer of material that contains organic HAP. We are proposing that each owner or operator implement management practices to minimize evaporation, clean up spills, and implement submerged loading. The proposed rule defines submerged loading as the use of a submerged fill pipe that discharges no more than 12 inches from the bottom of the cargo tank.

8. Wastewater Systems

We developed two subcategories of wastewater streams based on differences in the concentration of partially soluble HAP in the wastewater stream. One subcategory consists of wastewater streams with partially soluble HAP concentrations less than 10,000 parts per million by weight (ppmw), and the other consists of wastewater streams with concentrations equal to or greater than 10,000 ppmw. Partially soluble HAP are a subset of all organic HAP. They are less soluble in water than other organic HAP, and they are more easily separated from water. A list of partially soluble HAP that matches a list of partially soluble HAP in the MON is included in Table 3 of the proposed rule. The proposed rule requires an owner or operator to use any of the procedures in 40 CFR 63.144(b) of the HON to determine the partially soluble HAP concentration in each wastewater stream. Several options are allowed. For example, the owner or operator may calculate the concentration based on knowledge of the wastewater, using bench-scale or pilot-scale test data that is demonstrated to be representative of the actual wastewater, or by testing samples of the actual wastewater stream.

For both subcategories we are proposing that the owner or operator treat the wastewater onsite or discharge it to an offsite facility for treatment. In addition, for the subcategory of wastewater streams with partially soluble HAP concentrations equal to or greater than 10,000 ppmw, we are proposing that the owner or operator separate the stream into a water phase and one or more organic phases using a decanter or other equipment that operates on the principle of gravity separation. The water phase would then have to be treated as described above. The separated organic liquid may be sent back to the process or discarded as hazardous waste. Also, liquid waste from the process that consists only of organic compounds may not be sent to the wastewater system if any of the organic compounds in the wastewater stream are partially soluble HAP.

D. What are the initial and continuous compliance requirements?

1. Continuous Process Vents

To demonstrate compliance with the management practices for continuous process vents, the owner or operator would conduct quarterly inspections during process operation to determine the integrity of the process vessels, identify and repair within 15 days any leaks, and ensure that covers are in place or closure mechanisms are in the closed position during process operation.

The proposed rule incorporates by reference the initial and continuous compliance requirements in 40 CFR part 63 subparts SS and FFFF for control devices, recovery devices, and closed-vent systems used to meet the emission limit for continuous process vents. These procedures are summarized below.

For each non-flare control device used to meet the percent reduction or outlet concentration emission limit for organic HAP emissions from continuous process vents, the owner or operator would be required to conduct a performance test to demonstrate initial compliance. The performance test would be conducted under representative operating conditions. To demonstrate continuous compliance, the owner or operator would monitor applicable operating parameters for the selected control device (including hydrogen halide and halogen HAP control devices if control of a halogenated organic HAP is achieved using a combustion device).

For each flare, the owner or operator would conduct a flare compliance assessment to demonstrate initial compliance, and continuously monitor applicable operating parameters to demonstrate continuous compliance.

Continuous monitoring of applicable operating parameters is required if a recovery device is used to maintain the TRE index value at a level greater than 1.0 and less than or equal to 4.0.

The owner or operator would inspect for and repair leaks in each closed-vent system that is used to convey a gas stream from a continuous process vent to either a final recovery device or control device. Monitoring of bypass lines to identify periods when emissions are diverted from a control device or recovery device would also be required.

Whenever a performance test is required, the owner or operator may choose to submit the results of a prior performance test to demonstrate initial compliance provided the prior test meets specified criteria. For example, the test must have been conducted within the past 5 years using the methods and procedures specified in the rule. Moreover, the owner or operator must demonstrate either that no process changes have been made since the test or that the results of the test with or without adjustments, reliably demonstrate compliance with the applicable emission standard despite process changes. Provisions are included in the proposed rule for submitting prior written notification of intent to use the previous data.

2. Batch Process Vents

To demonstrate compliance with the management practices for batch process vents, the owner or operator would conduct quarterly inspections during process operation to determine the integrity of the process vessels, identify and repair within 15 days any leaks, and ensure that covers are in place or closure mechanisms are in the closed position during process operation.

The proposed rule incorporates by reference the initial and continuous compliance requirements in 40 CFR part 63 subparts SS and FFFF for control devices and closed-vent systems used to meet an emission limit for batch process vents. These procedures are summarized below.

For each non-flare control device used to meet the percent reduction or outlet concentration emission limit for batch process vents, the owner or operator would conduct either a performance test or a design evaluation to demonstrate initial compliance. The performance test or design evaluation would be conducted under worst-case conditions according to 40 CFR 63.1257(b)(8). The results of a previous performance test may be used under the same conditions described in section III.D.1 of this preamble for a previous performance test of continuous process vents. To demonstrate continuous compliance, the owner or operator would continuously monitor applicable operating parameters for the selected control device (including hydrogen halide and halogen HAP control devices if a halogenated organic HAP is controlled using a combustion device).

For each flare, the owner or operator would conduct a flare compliance assessment to demonstrate initial compliance, and continuously monitor applicable operating parameters to demonstrate continuous compliance.

The owner or operator would inspect for and repair leaks in each closed-vent system that is used to convey a gas stream from a batch process vent to a control device. Monitoring of bypass lines to identify periods when emissions are diverted from a control device would also be required.

3. Metal HAP Process Vents

To demonstrate compliance with the management practices for metal HAP process vents, the owner or operator would conduct quarterly inspections during process operation to determine the integrity of the process vessels, identify and repair within 15 days any leaks, and ensure that covers are in place or closure mechanisms are in the closed position during process operation.

The proposed rule incorporates by reference the requirements of the NESHAP for Chemical Manufacturing Area Sources: Chromium Compounds (40 CFR part 63, subpart NNNNNN), concerning the procedures to demonstrate initial and continuous compliance with the percent reduction option for metal HAP process vents at new affected sources. A modified version of these requirements would apply to existing affected sources as summarized below.

A performance test would be required for both new and existing affected sources to demonstrate initial compliance. Although subpart NNNNNN requires only outlet testing, this proposed rule specifies that the testing must be conducted at both the inlet and outlet of the control device to determine the percent reduction. The results of a previous performance test may be used under the same conditions described in section III.D.1 of this preamble for a previous performance test of continuous process vents.

To demonstrate continuous compliance with an emission limit, the owner or operator of a new affected source that uses a fabric filter to control metal HAP emissions would install, operate, and maintain a bag leak detection system in accordance with a site-specific monitoring plan. The proposed rule specifies that the monitoring plan must describe the operation, maintenance, quality assurance, recordkeeping, and corrective action procedures to be followed.

The owner or operator of a new affected source using any other type of control device for PM, would demonstrate continuous compliance with an emission limit by developing and operating in accordance with a site-specific monitoring plan for that type of control device. The same requirements would apply to the owner or operator of an existing affected source using any type of control device for PM. The proposed rule specifies that the monitoring plan would list the operating parameters that will be monitored to maintain continuous compliance with the emission limit, the operating limit for each parameter, and an operation and maintenance plan for the control device and continuous monitoring system. A preventive maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance would be required as part of the operation and maintenance plan for the control device.

4. Storage Tanks

To demonstrate compliance with the management practices, the owner or operator would conduct quarterly inspections to determine the integrity of the tank, identify and repair within 15 days any leaks, and ensure that any openings or access points are covered or closed.

To demonstrate compliance with a floating roof or control device standard for storage tanks, the proposed rule requires the owner or operator to comply with procedures specified in 40 CFR part 63, subpart Kb. For example, floating roofs must meet design specifications, and the owner or operator would be required to conduct inspections, measure seal gaps, and repair defects. For a control device, the owner or operator would be required to demonstrate that the control device will achieve the required control efficiency during maximum loading conditions. The operating plan must also describe the parameter or parameters to be monitored to demonstrate continuous compliance.

5. Cooling Tower Systems

To demonstrate initial compliance with management practices for cooling tower systems with recirculation rates less than 8,000 gal/min (i.e., inspect the cooling water quarterly for evidence of hydrocarbons in the cooling water), the owner or operator would be required to prepare an operating and maintenance plan that describes actions to be taken in response to different inspection results. If a leak is identified, the owner or operator is required to fix it within 45 days. Records documenting the occurrence of each inspection, the findings, and any actions taken in response to those findings would demonstrate ongoing compliance.

To demonstrate initial compliance with the management practices for cooling tower systems with recirculation rates equal to or greater than 8,000 gal/min (i.e., monitor for surrogate indicators of leaks), the proposed rule requires the owner or operator to develop a site-specific monitoring plan. The plan would include a description of the parameter or condition to be monitored and explain how the monitoring will reliably indicate the presence of leaks. To demonstrate continuous compliance, the owner or operator would conduct monitoring at least every calendar quarter and fix leaks within 45 days of detection, unless the owner or operator meets specified conditions under which delay of repair is allowed. The plan would not need to be submitted to the Administrator for approval, but the proposed rule requires that the plan be revised any time a leak is identified by means other than those in the plan and could not be detected by the procedures described in the plan. Except for the monitoring frequency in the first six months after the compliance date, the initial and continuous compliance requirements in the proposed rule are the same as the provisions of § 63.104(c) through (e) of the HON (40 CFR part 63, subpart F).

6. Equipment Leaks

To demonstrate compliance with the requirement to conduct quarterly inspections for equipment leaks, the owner or operator would be required to document the date and results of each inspection in a log book. The number and location of any leaks, the date of repair, and reasons for any delay of repair beyond 15 calendar days after detection of the leak also would be recorded in the log.

7. Transfer Operations

To demonstrate compliance with standards for transfer operations, the owner or operator would document that the transfer rack is designed to use top loading with a drop tube that extends to within 12 inches of the bottom of the vessel being loaded and/or that it can fill tank trucks and railcars by bottom loading. Alternatively, the owner or operator would document that emissions from transfer operations are controlled by vapor balancing back to the storage tank from which the tank truck or railcar is loaded or that emissions are routed through a closed-vent system to a control device.

8. Wastewater Systems

Compliance with the standard requiring treatment of process and maintenance wastewater is a requirement to provide notice of any

deviation from this requirement in the semiannual compliance reports. For wastewater streams that contain partially soluble HAP at concentrations equal to or greater than 10,000 ppmw, the owner or operator would be required to maintain records to demonstrate that the organic and water phases have been separated before discharging the water phase for treatment and document the disposition of the organic phase.

E. What are the notification, recordkeeping, and reporting requirements?

1. Notifications and Reports

The owner or operator would be required to comply with all of the NESHAP General Provisions (40 CFR part 63, subpart A), for notifications; startup, shutdown, and malfunction (SSM) plans and reports; and reporting. If performance tests are required under the proposed rule, then the notification and reporting requirements for performance tests in the General Provisions would also apply. We have identified in Table 4 to the proposed NESHAP the General Provisions of 40 CFR part 63 applicable to affected sources. An additional notification for the use of a previous performance test to demonstrate compliance with the applicable emission limit for batch process vents, continuous process vents, or metal HAP process vents would also be required.

Each owner or operator would be required to submit a notification of compliance status report, as required by § 63.9(h) of the General Provisions. Reporting requirements incorporated by reference may specify additional information to include in the notification of compliance status report. Finally, the proposed rule requires the owner or operator to include in the notification of compliance status report certifications of compliance with rule requirements.

Semiannual compliance reports, as required by § 63.10(e)(3) of subpart A, would be required only for semiannual reporting periods when a deviation from any of the requirements in the rule occurred; the delay of repair provisions were invoked for heat exchangers in a cooling tower system; there is a delay of repair for an equipment leak, process vessel leak, storage tank leak, or leak from a small cooling tower; or any process changes occurred and compliance certifications were reevaluated.

2. Recordkeeping

The proposed rule requires records to demonstrate compliance with each management practice, emissions control requirement or other standard. These recordkeeping requirements are specified either directly in 40 CFR part 63, subpart VVVVVV, in the General Provisions to 40 CFR part 63, or other rules in which provisions have been incorporated by reference. These other rules include 40 CFR part 63 subpart F (cooling towers), subpart G (wastewater), subpart SS (continuous process vents, batch process vents, and closed vent systems), subpart GGG (alternative standard), subpart FFFF (alternative standard), and subpart NNNNNN (metal HAP process vents). In addition, the proposed rule incorporates by reference the recordkeeping requirements in 40 CFR part 60, subpart Kb (storage tanks).

Records for management practices applicable for all process vents must be maintained. Specifically, the owner or operator must keep records of the dates and the results of each inspection and the dates of equipment repairs.

The owner or operator would be required to keep records of each calculation that shows the TRE for a continuous process vent is greater than 1.0. This requirement would apply to both initial calculations and calculations after process or operational changes. Records of either continuously monitored parameter data or CEMS data (if complying with the alternative standard) would be required for a control device or a recovery device if a recovery device is used to maintain the TRE between 1.0 and 4.0.

Each owner and operator of batch process vents would be required to keep a record of the initial calculation of either the total annual emissions from batch process vents or the total annual HAP usage that is used to determine the applicable subcategory. If emissions are calculated, the proposed rule requires the owner or operator to keep records of the initial estimates of typical emissions per batch for each process and to track the number of batches of each process operated per month. If the applicable subcategory is determined based on HAP usage, then the proposed rule requires the owner or operator to track the HAP usage per month. Other information that the owner or operator would be required to record includes: (1) Revised estimates of the collective emissions from all batch process vents in the chemical manufacturing operations if process changes occur (or revised estimates of the HAP usage, if applicable); and (2) the information and procedures used to identify the worst-case process if the owner or operator elects to estimate emissions for all batch process vents based on the emissions for the worst case process.

Each owner or operator of metal HAP process vents would be required to keep records of the initial calculation of estimated metal HAP annual emissions from all metal process vents. The owner or operator of each affected source that is subject to the emission limit for metal HAP emissions would be required to keep a current copy of the monitoring plan. If a fabric filter is used to meet the emission limit for metal HAP emissions at a new affected source, the owner or operator would be required to keep records of the bag leak detection system output, adjustments to the bag leak detection system, and information related to alarms and corrective action. If a control device other than a fabric filter is used at a new affected source to meet the emission limit for metal HAP emissions, then the owner or operator would be required to record continuously monitored operating parameters in accordance with the site-specific monitoring plan. The proposed rule also requires the owner of an existing source that is subject to the emission limit for metal HAP to keep records of continuously monitored operating parameters in accordance with the site-specific monitoring plan.

If an owner or operator is required to control a large storage tank in accordance with 40 CFR part 60, subpart Kb, the owner or operator would keep records related to the size of the tank and/or type of material stored for each storage tank. In addition, if an internal floating roof is installed to meet the standard, the owner or operator would maintain records of each inspection of the roof and seals. If an external floating roof is used to meet the standard, the owner or operator would maintain records of seal gap measurements. If emissions are routed through a closed vent system to a non-flare control device, the owner or operator would maintain records of monitored operating parameters. If the control device is a flare, records of all periods during which the flare pilot flame is absent would be required. For large and small storage tanks, records for management practices must be maintained. Specifically, the owner or operator must keep records of the dates and the results of each inspection and the dates of equipment repairs.

To comply with the surrogate indicator monitoring standard for large cooling towers, the proposed rule requires the owner or operator to keep records of the monitoring data and information related to the detection and repair of leaks. Maintaining a copy of the monitoring plan would also be

required. For small cooling towers, facilities must inspect the cooling tower water for evidence of the presence of hydrocarbons and record in a log book the date and results of each quarterly inspection, including description of leak; reasons for any delay of repair; and the date each leak is repaired.

Each owner or operator with equipment in organic HAP service would be required to record in a log book the date and results of each quarterly inspection, including the number of leaks and their locations; reasons for any delay of repair beyond 15 days; and the date each leak is repaired.

Each owner or operator would be required to keep records identifying all wastewater streams with total partially soluble HAP concentrations greater than 10,000 ppmw and the disposition of all organic phases generated in decanters or other separation equipment.

All facilities must keep records of any deviations from the requirements in the rule, and these records must be included in the compliance report for the semiannual period in which the deviation occurred.

Typically, records would be retained for at least 5 years, but records of storage tank dimensions and capacity would be retained for the life of the affected source. In addition, monitoring plans, operating and maintenance plans, and other plans would be updated as necessary and kept for as long as they are still current.

IV. Rationale for This Proposed Rule

A. How did we subcategorize emission sources?

As part of the development of these proposed standards, we considered whether there were differences in processes, sizes, or other factors affecting emissions that would warrant subcategorization. Under section 112(d)(1) of the CAA, EPA ''may distinguish among classes, types, and sizes within a source category or subcategory in establishing such standards * * *.'' We explain below in detail our proposed subcategorizations for six of the eight types of emission points at chemical manufacturing area sources. We are proposing a single subcategory for both equipment leaks and transfer operations.

Continuous Process Vents. In numerous previous NSPS and NESHAP (40 CFR part 60 subparts III, NNN, and RRR, and 40 CFR part 63 subpart G) rulemakings we have used the TRE equal to 1.0 as a basis for distinguishing continuous process vents. The TRE combines the effect of HAP emission rate, HAP heating value, and emission stream flow rate into a single criterion that is easier to use than all of the individual parameters. We determined from our review of the MON database that continuous process vents with low TRE values tend to have both higher emission stream flow rates and higher emission rates than continuous process vents with higher TREs. Increased flow from a vent generally corresponds with increased size of the unit operation and increased production rate. For these reasons, we think that the TRE value provides a reasonable estimate of the size of continuous process units at chemical manufacturing area sources.

After determining that the TRE value provides a reasonable indicator of size, we reviewed the data to determine the appropriate TRE value to propose to distinguish large and small continuous process vents. We evaluated the impacts of requiring all continuous process vents to operate add-on controls such as flares or condensers. We also considered the impacts of requiring controls for continuous process vents with different TRE values. We concluded that the control cost increased at a significantly higher rate than the emissions reductions the higher the TRE value. We also considered the TRE values at which the various MACT and NSPS determine applicability. This is relevant to the size of the continuous process vents because MACT standards apply to major sources and NSPS standards may consider size in determining applicability. We then considered the costs of control for the different TRE values in other standards. For example, we determined that the HON TRE value of 1 has a cost-effectiveness of approximately $3000/ton of HAP removed and that the MON TRE value of 1.9 has a cost-effectiveness of $7400/ton of HAP removed. In light of the relative emissions reductions and costs for the various thresholds, we determined that the TRE value of 1 was appropriate threshold to distinguish between large and small continuous process vents at chemical manufacturing area source.

For all the reasons above, we are proposing to develop two subcategories for continuous process vents based on differences in TRE values. We are proposing this because TRE value provides a reasonable basis on which to differentiate the size of continuous process vents. One subcategory is for continuous process vents with a TRE value less than or equal to 1.0, and the other is for continuous process vents with a TRE value greater than 1.0. We solicit comments on whether additional characteristics of continuous process vents would support alternative subcategories based on size, class or type.

Batch Process Vents. We determined after review of information for batch process vents that many of the facilities with the highest organic HAP emissions are emitting methylene chloride. Many of these facilities are also emitting other HAP such as methanol, hexane, and toluene. All of these HAP are typically used as solvents. In addition, as part of various NESHAP rulemakings (40 CFR part 63, subparts GGG, MMM, and FFFF), we determined that processes using HAP as solvents generally have emissions much higher than other processes that use HAP as a reactant or generate HAP as a byproduct of reaction. This is the case because process vent emissions are proportional to HAP concentration in the vent stream, and the high vapor pressure solvents result in a high concentration of HAP in the gas phase. The high-volume use of solvents also results in higher emissions because of displacement losses.

Another factor that affects the emissions level is the production rate. For chemicals manufactured using batch processes, production rate is measured by number of batches. The proposed rule references standard equations for calculating HAP emissions from unit operations typically used in batch chemical processing. The annual emissions from manufacturing a chemical using batch processes is equal to the emissions from a standard batch cycle multiplied by the number of batches run in a year.

Based on this analysis, we have determined that operations where solvent use constitutes the primary source of HAP emissions and the number of batches at affected facilities is high, there are higher organic HAP emissions. We have concluded that these factors relating to the type of operation (high solvent use) and size of operation (based on number of batches) provide a reasonable basis for subcategorization. We considered whether we should combine these factors into a formula for defining the subcategories, but given the various variables at issue, we determined such an approach was too complex. As an alternative, we evaluated the sources in the category and determined that annual emissions rate provides a means of considering the factors discussed above. Also, as discussed above in regard to continuous process vents, we considered the relative emissions reductions 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 propose that facilities with organic HAP emissions greater than 19,000 lb/yr from batch process vents tend to have both high solvent use and a large number of batches. We are therefore proposing two subcategories based on the difference in annual emissions, one subcategory is for batch process vents with emissions equal to or greater than 19,000 lb/yr, and the other is for batch process vents with emissions less than 19,000 lb/yr. We solicit comments on our proposed subcategorization and whether additional characteristics of batch process vents would support alternative subcategories based on size, class or type.

Metal HAP Process Vents. In our review of data for metal HAP process vents, 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. Specifically, emissions varied according to whether the metal HAPs were intended to be incorporated into the product of the chemical manufacturing process. For products that incorporate the metal HAP (e.g., manganese dioxide, inorganic pigments, catalysts), emissions of metal HAP are generally larger; conversely, the metal HAP emissions tend to be smaller when the metal HAP is present because it is from impurities introduced with raw materials or products of combustion. However, we have identified some vents that emit larger amounts of metal HAP, even though the metal HAP is not incorporated into the final product. These facilities are likely to emit more metal HAP 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.

For these reasons, we are not subcategorizing metal HAP process vents solely on the basis of whether or not the processes are the type that incorporate metal HAP into the final product, as that would not account for the facilities that do not incorporate the metal HAP into the product, but that are large facilities and thus have higher metal HAP emissions, or those that use raw materials and fuel that have a higher metal HAP content. We determined 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.

We are co-proposing two subcategories for metal HAP process vents based on either an emission level of 100 lb/yr or an emission level of 400 lb/yr. We think that at either level the proposed subcategorization accounts for the purpose for which the metal HAP emissions are present in the metal HAP process vents, the size of the facilities that incorporate metal HAP into the product, the size of facilities that do not incorporate metal into the final product, and the facilities that do not incorporate the metal HAP into the product but use raw materials or fuels that have high metal HAP content. By considering all these factors in our subcategorization determination and also the relative emissions reductions and cost of controls, we believe that we have developed a reasonable basis on which to subcategorize metal HAP process vents. We solicit comments, along with supporting documentation, on the co-proposed subcategories based on either 100 lb/yr or 400 lb/yr and whether additional characteristics of metal HAP process vents would support alternative subcategories based on size, class or type.

Storage tanks. In our review for storage tanks we determined that the NSPS for volatile organic liquid storage vessels in 40 CFR part 60, subpart Kb applies to storage tanks at area sources. The NSPS applies to storage tanks that are larger than 40,000 gallons and store liquid with an MTVP greater than 0.75 pounds per square inch absolute (psia). It also applies to storage tanks that have a capacity greater than 20,000 gallons and store liquid with a MTVP greater than 4.0 psia. We determined that tanks meeting the applicability criteria in subpart Kb are large storage tanks and tanks not meeting those applicability thresholds are small tanks. Therefore, we are proposing two subcategories for storage tanks, one for large storage tanks, which are those that exceed the NSPS capacity and MTVP limits in subpart Kb, and one for small storage tanks, which are those that do not exceed those limits. We solicit comment on our subcategorization determination and whether there are other means to differentiate among storage tanks that would support alternative subcategories based on size, type or class.

Cooling towers. In our review of information for cooling tower systems we determined that certain counties in the State of Texas require continuous monitoring of the total strippable VOC concentration and water flow at the inlet of each cooling tower with a design recirculation rate greater than or equal to 8,000 gal/min. This recirculation rate is representative of typical large size cooling towers for the chemical manufacturing industry. Smaller cooling towers are those with a design recirculation rate less than 8,000 gal/min. Therefore, we are proposing two subcategories for cooling tower systems based on the size of the cooling towers and using the threshold in the Texas requirement as the basis for differentiating among large and small cooling towers. We solicit comment on our proposed subcategorization and whether there are other means to differentiate among cooling towers that would support alternative subcategories based on size, type or class.

Wastewater systems. In our review of information for wastewater systems, we determined that the reported solubilities, the concentration at which the solute no longer dissolves in water, of many of the chemical manufacturing organic urban HAP are approximately 10,000 ppmw. Thus, wastewater streams with concentrations above this level would separate into organic and water phases if allowed to settle. The pharmaceuticals production MACT standard, 40 CFR part 63, subpart GGG prohibits the discharge of multi-phase wastewater streams to wastewater treatment systems, and this and other MACT standards prohibit the discharge of streams that contain organic HAP at concentrations greater than 10,000 ppmw without meeting the maximum control standards in the rule. Because organic HAP in wastewater may exist as a separate phase we consider this type of wastewater stream different than an aqueous stream. We are proposing two subcategories based on the 10,000 ppmw concentration of organic HAP, which is the level the organic HAP generally ceases to dissolve in water. We solicit comment on our proposed subcategorization and whether there are other means to differentiate among wastewater systems that would support alternative subcategories based on size, type or class.

B. How did we determine GACT?

As provided in CAA section 112(d)(5), we are proposing standards representing GACT for eight types of emission points at nine area source chemical manufacturing source categories. As noted in section II of this preamble, the statute allows EPA to establish standards for area sources listed pursuant to section 112(c) based on GACT. The statute does not set any condition precedent for issuing standards under section 112(d)(5) other than that the area source category or subcategory at issue must be one that EPA listed pursuant to section 112(c), which is the case here.

The information used to determine the proposed GACT standards is derived

from existing regulations that apply to some chemical manufacturing area sources, facilities in other area source categories, and chemical manufacturing major sources; permits and other sources of information about control technologies and management practices that represent current industry practice; and information regarding control technologies used at chemical manufacturing major sources. We also considered costs and economic impacts in determining GACT.

We explain below in detail our proposed GACT determinations for each of the emission points at chemical manufacturing area sources. Table 1 of this preamble summarizes the proposed GACT standard for each subcategory and emission point. We request comment on all of the proposed GACT determinations.

TABLE 1—SUMMARY OF PROPOSED GACT FOR CHEMICAL MANUFACTURING AREA SOURCES

Emission point	Subcategory	Proposed GACT
Continuous process vents ...	TRE ≤1.0 and TRE >1.0	Management practices.
	TRE ≤1.0	Use control device that reduces organic HAP by ≥95 percent.
Batch process vents	Organic HAP emissions from all batch process vents <19,000 lb/yr and ≥19,000 lb/yr.	Management practices.
	Organic HAP emissions from all batch process vents ≥19,000 lb/yr.	Use control device that reduces organic HAP by ≥90 percent.
Metal HAP process vents	All metal HAP emissions	Management practices.
	Metal HAP emissions ≥100 (or 400) lb/yr	Use control device that reduces metal HAP emissions by ≥95 percent.
Storage tanks	Tank size or MTVP of stored material less than thresholds for control in 40 CFR part 60, subpart Kb or tank size and MTVP at or above thresholds.	Management practices.
	Both tank size and MTVP of stored material at or above thresholds in 40 CFR part 60, subpart Kb.	Control in accordance with 40 CFR part 63, subpart Kb.
Cooling tower systems	Cooling water recirculation rate <8,000 gal/min	Management practices.
	Cooling water recirculation rate ≥8,000 gal/min	Surrogate monitoring for leaks.
Equipment leaks	All	Quarterly inspections for leaks and repair of equipment found to be leaking.
Transfer operations	All	Submerged loading and other management practices.
Wastewater systems	Wastewater streams with PSHAP concentrations <10,000 ppmw and ≥10,000 ppmw.	Treatment.
	Wastewater streams with PSHAP concentrations ≥10,000 ppmw.	Use gravity separation device to separate organic and water layers, and treat the water layer.

1. GACT for Organic HAP Process Vents

In evaluating GACT options, we found that several facilities have incorporated Federally enforceable provisions in their operating permits in order to obtain synthetic minor status for HAP emissions. Many of these facilities are reducing organic HAP emissions from process vents by routing emissions to air pollution control devices such as combustion devices, condensers, and carbon adsorbers. These types of control devices are generally available technology because they are being used by many facilities in the nine source categories at issue to control organic HAP emissions. These controls are also used to reduce emissions from process vents in processes at other similar area sources. Furthermore, such controls would be required for some of these processes if they were operated at major sources where the emission characteristics exceed the thresholds for control in the applicable MACT standards.

Moreover, various federal and state regulations require organic HAP emission reductions from process vents between approximately 90 percent and 98 percent. For example, several states require a 90 percent reduction from certain large process vents at pharmaceutical production facilities. The pesticide active ingredient production NESHAP (40 CFR part 63, subpart MMM) requires a 90 percent reduction from most process vents. Numerous MACT rules require 98 percent reductions of organic HAP from process vents. Some MACT standards specify an intermediate emission limit based on reducing emissions by 95 percent. Although not a regulation, the Alternative Control Techniques Document for Batch Processes (see docket EPA–HQ–OAR–2008–0334) identifies 90 percent reduction as an appropriate reduction for a range of process vent characteristics.

A reduction of at least 98 percent is typically achievable using combustion devices such as thermal incinerators. A thermal incinerator would more than meet a 90 percent reduction requirement, and for some emission streams it is less costly than other types of control devices. A 90 percent or 95 percent reduction, however, can also be met using other types of control devices such as condensers. The above discussion focuses on the types of add-on controls that are available for use on organic process vents. In separate sections below, we discuss our evaluation of GACT for continuous and batch process vents. That discussion includes an evaluation of the costs associated with different percent emission reduction requirements.

In addition to emission limit requirements, we found that several States require pharmaceutical facilities to enclose certain types of equipment, except when operator access is needed for sampling, maintenance, or inspections. We also understand that some facilities inspect process equipment to check for leaks. We have no reason to believe that it would be infeasible for all chemical manufacturing area sources to operate equipment only when closed and conduct periodic checks for leaks. Therefore we evaluated the cost of the following management practices: (1) Cover all process tanks and mixing vessels during operation, (2) maintain covers in the closed position on all openings and access points in other process vessels, (3) conduct quarterly inspections to check for leaks from the process vessels and determine the integrity of the process vessels and ensure that covers are being used as

specified in items 1 and 2, and (4) repair within 15 days any leaks in the process equipment. These management practices could be implemented by facilities with both batch process vent subcategories and both continuous process vent subcategories. Costs to implement such management practices are estimated to be approximately $280/yr for each affected facility.

Continuous process vents. As part of our GACT analysis for the two subcategories of continuous process vents, we evaluated the costs of using add-on control devices to achieve a 95 percent reduction of organic HAP emissions from continuous process vents. We estimated that two facilities in the subcategory with a TRE index value less than or equal to 1.0 are not already achieving reduction comparable to this emission limit. Based on a range of emission stream characteristics, a condenser and a thermal incinerator were each determined to be the least costly control device for one facility. The average cost-effectiveness of control was estimated at about $3,000/ton of HAP removed, which is consistent with cost-effectiveness for standards based on a TRE of 1. Because this cost is reasonable, we also evaluated the cost of a 98 percent reduction option. However, sources already implementing controls may need to install combustion devices to achieve 98 percent emissions reduction. We could not estimate the number of these controlled sources and baseline emissions, but the incremental cost-effectiveness for implementing controls to meet 98 percent relative to installing controls to meet the 95 percent reduction option is nearly $90,000/ton.

We also evaluated the impacts of a 95 percent reduction emission limit for facilities in the subcategory with TRE index values greater than 1.0. The mix of control devices used would be the same as for facilities in the other subcategory, but the average cost-effectiveness of this option would be about $30,000/ton of HAP removed. Because this cost is unreasonable, we did not evaluate the cost of a more stringent 98 percent reduction option for this subcategory.

Based on the generally available controls and management practices and the estimated costs, we are proposing that GACT be different for the two subcategories. For the subcategory of facilities with TRE index values less than or equal to 1.0, we are proposing that GACT consists of both management practices as described above and controls to meet a 95 percent reduction emission limit because the costs for both of these options were determined to be reasonable. We have determined that controls to meet a more stringent 98 percent reduction emission limit do not represent GACT because the costs were determined to be unreasonable. For the subcategory of facilities with TRE index values greater than 1.0, we are proposing that GACT consists only of the management practices described above because the cost of other generally available controls to reduce emissions were determined to be unreasonable.

Batch process vents. As part of our GACT analysis for the two subcategories of batch process vents, we evaluated the costs to use add-on control devices to reduce organic HAP emissions from batch process vents by 90 percent. We estimated that four facilities in the subcategory with emissions equal to or greater than 19,000 lb/yr are not already using controls that achieve this reduction. We estimated that the flow of the emission streams at these facilities would be relatively low and the HAP concentration relatively high so that condensers would be the least costly control device. The cost-effectiveness of control would be about $2,300/ton of HAP removed. Because this cost is reasonable, we also evaluated the cost of a 98 percent reduction option. To meet the 98 percent control level, a facility would likely need to install a combustion device. Because we could not estimate the types of controls at sources or the number of sources that would have to install completely new controls to meet this standard, we estimated the incremental cost of a 98 percent control level relative to a 90 percent control level. That incremental cost-effectiveness is estimated at nearly $100,000/ton.

We also examined the cost of a 90 percent reduction emission limit for facilities in the subcategory with estimated uncontrolled emissions from batch process vents less than 19,000 lb/yr. We estimated that this subcategory includes 107 facilities with emission streams that span a range of flows and concentrations. Condensers would be the least costly control device for some facilities, and incinerators would be the least costly control device for other facilities. The average cost-effectiveness of control for these facilities is estimated at about $25,000/ton of HAP removed. Because this cost is unreasonable, we did not evaluate the cost of a more stringent 98 percent reduction option for this subcategory.

Based on the generally available controls and management practices and the estimated costs, we are proposing that GACT be different for the two subcategories. For the subcategory of facilities with batch process vent emissions equal to or greater than 19,000 lb/yr we are proposing that GACT consists of both management practices as described above and a 90 percent reduction emission limit because the costs for both of these options were determined to be reasonable. We are proposing that a more stringent 98 percent reduction emission limit does not represent GACT because the costs were determined to be unreasonable. For the subcategory of facilities with batch process vent emissions less than 19,000 lb/yr, we are proposing that GACT consists only of management practices because the costs of other available controls to reduce emissions were determined to be unreasonable.

2. GACT for Metal HAP Process Vents

The metal HAP emissions tend to be PM emissions, and many processes emit other PM along with the HAP metals compounds. As part of our GACT analysis we determined that the same management practices described in section IV.B.1 for organic process vents are equally feasible and available for both subcategories of metal HAP process vents. We also estimated that the costs are the same as for organic process vents ($280/yr per facility).

Fabric filters and other types of control devices are widely used to control PM emissions, including PM containing metal compounds. Such controls are generally available, and reductions are at least 95 percent. Over 90 percent of the PM emissions from area sources are in the form of fine particulate matter, and EPA studies have found that fine particles continue to be a significant source of health risks in many urban areas.

As part of our GACT analysis, we evaluated the costs of using add-on control devices and achieving a 95 percent metal HAP emission reduction for the subcategory with uncontrolled metal HAP emissions of 100 lb/yr or greater and 400 lb/yr and greater. We estimated that 55 facilities are in the subcategory defined as 100 lb/yr or greater and 30 facilities are affected when the subcategory is defined as 400 lb/yr or greater. Table 2 of this preamble summarizes the impacts of the co-proposed requirements. The cost-effectiveness of control to the 95 percent reduction of emissions would be about $70,000/ton of HAP metal compounds removed and $5,000/ton of PM if the subcategory is defined as 100 lb/yr or greater. The cost-effectiveness would be about $40,000/ton of HAP metal compounds removed and $3,000/ton of PM if the subcategory is defined as 400

lb/yr or greater. The costs for both co-proposals are considered acceptable and are in line with the cost-effectiveness for PM in other rules, including rules that require control of PM from other area sources and mobile sources. We believe that these area and mobile source rules provide a reasonable benchmark for PM cost-effectiveness. We did not consider a control option more stringent than 95 percent reduction because the use of add-on control devices is the most effective control technique available.

TABLE 2—IMPACTS OF CONTROL OPTIONS FOR METAL HAP PROCESS VENTS

Uncontrolled emissions cutoff for control, lb/yr	Total capital cost (1,000$)	Total annual cost (1,000$/yr)	Emission reduction (tpy)		Cost effectiveness (1,000 $/ton HAP [PM])	
			HAP	PM	Relative to baseline	Incremental
400	0.7	1.7	41	570	41 [2.9]	
100	1.3	3.0	44	610	69 [4.9]	430 [31]

We also evaluated the cost of using the same types of control devices to achieve a 95 percent metal HAP emission reduction at facilities in the subcategory with uncontrolled metal HAP emissions less than 100 lb/yr. We estimated that 119 facilities are in this subcategory, and the cost-effectiveness of control would be about $7 million/ton of HAP metal compounds removed and $0.5 million/ton of PM removed. These costs are considered unacceptable.

Based on the generally available controls and management practices and the estimated costs, we are proposing that GACT be different for the two subcategories. For the subcategory of facilities with uncontrolled HAP metal emissions equal to or greater than the threshold (100 lb/yr or 400 lb/yr), we are proposing GACT to be both management practices as described above and a 95 percent reduction emission limit because the costs for both of these options were judged to be acceptable. For the subcategory of facilities with uncontrolled HAP metal emissions less than the threshold (100 lb/yr or 400 lb/yr), we are proposing that GACT consists only of management practices because the cost of other generally available controls to reduce emissions were determined to be unreasonable.

3. GACT for Storage Tanks

Chemical manufacturing area sources that constructed, reconstructed, or modified certain storage tanks since 1984 have been subject to the NSPS for storage vessels in 40 CFR part 60, subpart Kb. The NSPS requires that each storage tank that has a capacity greater than 20,000 gallons and is used to store volatile organic liquid that has a MTVP greater than 4.0 psia (or greater than 0.75 psia for tanks larger than 40,000 gallons) be equipped with an internal or external floating roof, or that the displaced vapors be routed to a control device that reduces emissions by at least 95 percent. The number of storage tanks at area sources that exceed the subpart Kb size and MTVP thresholds and are not already subject to these NSPS is estimated to be 5. In this rule, we refer to these storage tanks as large tanks. The average annual cost for complying with the above-noted requirements is estimated at $3,000/yr, and the average cost-effectiveness is estimated to be $2,800/ton of HAP controlled. We did not consider control levels of 98 percent. The costs for the control required in subpart Kb are based on floating roof control technology. With the low emissions from storage tanks relative to process vents, the incremental cost-effectiveness between 95 and 98 percent would be worse than for process vents and very unreasonable when comparing the cost of floating roofs to the cost of combustion control.

As part of the GACT analysis, we also considered applying the subpart Kb standards to the small tank subcategory of storage tanks (i.e., those that do not meet the subpart Kb size and MTVP thresholds for control). Floating roofs are not available for small or horizontal tanks, therefore, floating roofs are not generally available for such tanks. The cost of requiring add on controls for storage tanks is considered unreasonable for storage tanks that do not meet the size and MTVP thresholds. We reached the same conclusion in the rulemaking analyses for all of the NESHAP for major sources in various chemical manufacturing source categories. For example, the cost-effectiveness of MON standards for small tanks (10,000 gallons) storing material with a MTVP of 1 psia, was estimated at approximately $8,000/ton of HAP removed. The size and MTVP thresholds vary in the NESHAP as a result of industry-specific MACT floor determinations, but in each case the costs to apply controls to storage tanks that do not meet the subpart Kb thresholds were determined to be unreasonable. We have no reason to believe that the results would be different for area sources.

In addition to emission limits like those in subpart Kb, we also considered generally available management practices for storage tanks. We understand that it is common practice for facilities to periodically inspect storage tanks to ensure that the structure is sound and liquid is not leaking from the tank. In addition, good operating practice dictates that all openings and access points on storage tanks will be covered or closure mechanisms will be in the closed position when liquid is in the tank, except when operator access is needed. During inspections for leaks, operators can also check that all covers and closure mechanisms are in place. The owner or operator would also be required to repair within 15 days any leaks in the process equipment. The cost of these management practices per facility is estimated at $280/yr.

In conclusion, for the subcategory of large storage tanks (i.e., those that exceed the size and MTVP thresholds in subpart Kb), we are proposing GACT to be: (1) Management practices consisting of quarterly inspections for leaks and repairing leak within 15 days, minimizing and promptly cleaning up spills, and ensuring that all openings and access points are closed for all storage tanks; and (2) each storage tank must be equipped with an internal or external floating roof, or the displaced vapors must be routed to a control device that reduces emissions by at least 95 percent. Costs for these control techniques were determined to be reasonable, but costs for more stringent controls were determined to be unreasonable. For the subcategory of small storage tanks (i.e., those that do not meet the size and MTVP thresholds in subpart Kb), we are proposing GACT to be the same management practices that are part of GACT for the large storage tank subcategory. These costs were determined to be reasonable.

However, as noted above, we concluded that the costs for meeting the storage tank controls required by subpart Kb were unreasonable.

4. GACT for Cooling Tower Systems

In evaluating GACT options, we found permits for three petroleum refineries (1 in California, 1 in Indiana, and 1 in Illinois) that are required to conduct daily or weekly visual inspections for evidence of hydrocarbons in cooling tower recirculating water. Determination of other parameters such as the chlorine content and/or total dissolved solids is also required periodically. Required actions in response to finding hydrocarbons in the water vary among the four facilities. One facility is required to take remedial action to correct the problem. The second facility is required to conduct VOC sampling and estimate the VOC emissions; if emissions are estimated to exceed 5 tons/yr, then the facility must apply for a cooling tower permit. The third facility must develop and operate in accordance with a site-specific checklist of steps to take if the inspection parameters indicate the presence of a leak. Although the three facilities are petroleum refineries, the inspection procedures that they conduct are management practices that could be implemented by chemical manufacturing area sources. Therefore, we are proposing the following management practices for small cooling tower systems at sources affected by this proposed rule: (1) Development of a site-specific plan that describes the characteristics that the owner or operator will consider evidence of process fluid leaks into the cooling water and the actions to be taken in response to finding such conditions; (2) quarterly inspections in accordance with the plan for evidence of leaks; and (3) keeping a log documenting the inspection dates, findings, and actions taken. We estimated the cost of this option at $800/yr per facility.

We also reviewed State and Federal rules for emission standards that apply to cooling tower systems at area sources or that would be technically feasible for area sources. On the Federal side, SOCMI sources that are subject to the HON must monitor either surrogate indicators of a leak or monitor the water for one or more HAP or VOC that, if present, would indicate a leak. In the HON, if surrogate indicators are to be monitored, the owner or operator must prepare a monitoring plan that documents the procedures to be used, defines the parameter(s) or condition to be monitored, explains why the parameter(s) or condition to be monitored reliably indicates a leak, and specifies the level that constitutes a leak. Alternatively, if the owner or operator elects to monitor directly for HAP or VOC, the HON specifies sampling and analysis procedures, including the sampling locations and frequency, and a statistical procedure for determining whether the data indicate the presence of a leak. When a leak is found by either method, the HON requires that the owner or operator identify and fix the source of the leak within 45 days after detection, unless conditions for delay of repair are met. Most of the MACT rules for other chemical manufacturing source categories issued after the HON incorporate by reference the HON's cooling tower system requirements.

Although the HON applies only to major sources, there are no technical reasons why the procedures could not be applied at area sources as well. Therefore, we evaluated the costs of applying the surrogate and direct monitoring options to both subcategories of cooling towers at chemical manufacturing area sources. For cooling towers in the subcategory with cooling water flow rates equal to or greater than 8,000 gal/min, we estimated the average cost of the surrogate monitoring option to be about $1,600/yr per facility, and the cost-effectiveness is estimated at $1,100/ton of HAP removed. For cooling towers in the subcategory with cooling water flow rates less than 8,000 gal/min, the cost-effectiveness is estimated at $13,000/ton of HAP removed.

Based on the information regarding available monitoring methods and estimated costs, we are proposing that GACT be different for the two subcategories. Costs to implement monitoring consistent with HON requirements was determined to be unreasonable for the subcategory of cooling towers with cooling water flow rates less than 8,000 gal/min. Therefore, we are proposing that GACT for this subcategory is management practices as described above for small cooling tower systems. For cooling towers systems in the subcategory with cooling water flow rates equal to or greater than 8,000 gal/min, we estimated that the cost of quarterly surrogate monitoring is reasonable, and therefore we are proposing surrogate monitoring as GACT. We request comment on this decision and rationale for alternative approaches. We are also interested in emission and cost data for cooling towers that are implementing the monitoring requirements in the HON or other rules at either area sources or major sources.

5. GACT for Equipment Leaks

We concluded that most chemical manufacturing area sources conduct periodic sensory-based inspections to identify and repair leaks as part of routine or preventive maintenance programs. Based on permits and other available information, we determined that some facilities have obtained synthetic minor status for HAP and may be implementing leak detection and repair programs based on instrument monitoring consistent with NESHAP for major sources (e.g., equipment leak standards in 40 CFR part 63, subparts H, U, GGG, JJJ, MMM, and FFFF).

The prevalence of sensory-based inspection programs makes them a viable potential option for GACT. If, as believed, a large percentage of facilities are already being inspected for equipment leaks, the costs associated with this option would be small. The costs are estimated to be about $1,100/yr/facility for a sensory-based quarterly inspection and repair program.

We also considered a more stringent option that would achieve reductions comparable to the leak detection and repair program in 40 CFR part 63, subpart FFFF. Requirements include periodic instrument-based monitoring of pumps, valves, and in some cases, connectors, to detect leaks of organic compounds above specified concentrations. Monitoring frequencies vary depending on the type of equipment and the percentage of equipment found to be leaking, but the requirements are similar in each rule. These rules also require the use of certain equipment or management practices for other types of equipment. We estimated that annual costs for model facilities range from about $36,000/yr to $72,000/yr. In addition, we anticipate that most of the processes at area sources are batch processes. In the analysis for the MON, we determined the cost-effectiveness of the MACT floor for batch processes (i.e., an LDAR program only slightly different than the final standard) at about $11,000/ton of HAP removed. Given that area sources likely have fewer components and lower emissions than major source, we expect the cost-effectiveness to implement an LDAR program like that in the MON would be higher than $11,000/yr. This cost is unreasonable. Therefore, we are proposing that GACT for equipment leaks at all chemical manufacturing area sources is a program to conduct quarterly sensory-based inspections for leaks and repair equipment found to be

leaking. As explained above, while the cost-effectiveness cannot be determined, the actual cost is reasonable.

6. GACT for Transfer Operations

Management practices to minimize emissions from transfer operations are commonly implemented. These procedures include minimizing spills, cleaning up spills promptly, covering open containers when not in use, and minimizing discharges to open waste collection systems. We estimate the average costs to implement these management practices at $620/yr per facility.

In background documentation for the HON, we noted that as of 1991 approximately 97 percent of the SOCMI facilities have, in addition to implementing the management practices set forth above, already converted vehicles and, where necessary, loading racks for submerged fill or bottom loading. Thus, submerged loading is another available management practice for transfer operations. Assuming the 1991 findings are still valid for area sources, we estimate that three area sources would need to install equipment to comply with a standard that requires submerged loading, and we estimate the costs to be less than $2,000/yr per facility.

We also considered vapor balancing as GACT. Several MACT rules allow vapor balancing as an alternative to demonstrating compliance with a percent reduction emissions limit. As part of the GACT analysis we evaluated the costs for facilities to implement vapor balancing. If all facilities could implement vapor balancing, we estimated the costs to be approximately $12,000/yr per facility, and the estimated cost-effectiveness to be approximately $130,000/ton of HAP removed. However, vapor balancing uses process equipment and may not be feasible for all affected facilities. To achieve a comparable level of emissions control, these facilities would have to route displaced vapors from the tank trucks and railcars to an air pollution control device. If a new control device must be installed, the costs may be considerably greater than for vapor balancing. As a result, the cost-effectiveness of a control option based on vapor balancing or equivalent control is likely to be greater than $130,000/ton of HAP removed.

Because the cost of vapor balancing was determined to be unreasonable, we are proposing that GACT for transfer operations at all chemical manufacturing area sources consists of management practices to minimize evaporation losses and the use of submerged loading.

7. GACT for Wastewater Systems

Chemical manufacturing facilities typically discharge wastewater to some form of water treatment because treatment is needed to meet applicable effluent limitations. Biological treatment, either onsite or offsite, is the most common form of treatment. Other types of treatment include steam stripping and treatment onsite or offsite as a hazardous waste. All of the MACT standards for the different chemical manufacturing source categories require treatment of wastewater streams that meet certain flow and HAP concentration levels. These standards require either the use of a treatment unit that meets specified design criteria or that achieves specified destruction efficiencies for the HAP in the wastewater. They also typically require the use of covers and other techniques to suppress emissions from the wastewater conveyance system and treatment units. Some of the MACT standards also prohibit the discharge of multi-phase wastewater streams to wastewater treatment systems. Decanters and other equipment that separate organic materials and water mixtures into separate streams are widely available and used to meet this requirement. Although information about the number of area sources implementing controls like those required in the MACT standards is not available, the technology used to meet these standards is as applicable at an area source as at a major source.

Based on the information regarding available controls, we developed three options for evaluation as GACT for the two subcategories of wastewater streams: (1) Discharge the wastewater stream to a treatment process, (2) use gravity separation techniques to separate organic and water layers (and then discharge only the water phase to wastewater treatment), and (3) treat the wastewater stream using controls that meet MACT requirements (specifically the HON requirements). As part of the analysis, we evaluated the costs of each option. Because facilities typically implement some form of treatment for all wastewater streams (i.e., both subcategories), we assumed that area sources would incur no additional costs to meet Option 1.

Costs for Option 2 consist of the cost for a decanter and the cost to dispose of the organic layer as a hazardous waste. We estimated that 20 area sources have wastewater streams in the subcategory of streams with PSHAP concentrations equal to or greater than 10,000 ppmw and are not currently implementing separation techniques as specified in Option 2. We estimated the average cost-effectiveness for these area sources to implement Option 2 at $1,600/ton of HAP removed. This approach may overstate the costs if the recovered organic material can be reused in the process or as fuel. Option 2 is not applicable for the subcategory of streams with PSHAP concentrations below 10,000 ppmw; gravity separation techniques would have no effect on streams in this subcategory because they are already a single phase.

Costs for Option 3 were estimated assuming an owner or operator would either treat the wastewater onsite using steam stripping or collect the wastewater for treatment offsite as a hazardous waste, whichever is least costly. The average cost-effectiveness for the estimated 20 facilities with wastewater streams in the subcategory of streams with PSHAP concentrations equal to or greater than 10,000 ppmw is $16,000/ton of HAP removed. We estimated that at least 24 area sources are in the subcategory with PSHAP concentrations less than 10,000 ppmw. The estimated average cost-effectiveness for these area sources to meet Option 3 is $110,000/ton of HAP removed.

Based on the information regarding available controls and estimated costs, we are proposing that GACT be different for the two subcategories. All three control options are technically feasible at area sources; therefore, we selected GACT based on the most effective method or combination of methods that has acceptable costs. For both subcategories, we are proposing that GACT consists of some form of treatment (e.g., whatever is needed to meet effluent limitations) because this control is typically already being implemented by area sources and therefore the costs are reasonable. For the subcategory of wastewater streams with PSHAP concentrations equal to or greater than 10,000 ppmw, we are proposing that GACT also consists of the use of gravity separation techniques to separate the wastewater into organic and water layers before the water layer is discharged to treatment because the cost of this control technique is reasonable. We are proposing that controls needed to meet more stringent emission limits like those required by the HON do not represent GACT for either subcategory because the costs are unreasonable.

C. How did we select compliance requirements?

For new and existing sources, we are proposing to apply the testing;

monitoring; operation and maintenance; and notification, reporting, and recordkeeping requirements in the NESHAP General Provisions (40 CFR part 63, subpart A) to ensure compliance with this proposed rule. We are proposing management practices for all emission sources except wastewater and emission limits for all emission sources except equipment leaks and transfer operations. We propose that the requirements in the General Provisions and the additional requirements discussed below are sufficient to ensure compliance with the proposed emissions limits and management practices.

Initial compliance certification followed by quarterly inspections is required for all management practices proposed in this notice. We have determined that monitoring in the form of recordkeeping is sufficient to ensure compliance with the requirements of the proposed rule. Records of inspections that document the date of each inspection, the results of each inspection, and the actions taken as a result of findings during the inspections are required. These compliance requirements are similar the equipment leak inspection requirements in 40 CFR part 63, subparts R and HHHHH and are sufficient to verify that the inspections have been conducted at the required frequency and that the leaking equipment has been identified and promptly repaired.

For cooling towers and transfer operations the management practices have additional requirements. The management practices for cooling tower systems requires the owner or operator to develop an inspection plan describing corrective actions to be taken if the presence of a leak is indicated. The management practices for transfer operation require submerged loading.

The proposed compliance requirements associated with the emission limits in the proposed rule are addressed below. We have reviewed the testing, monitoring, recordkeeping and reporting requirements for batch process vents and continuous process vents in subparts SS and FFFF of 40 CFR this part 63. We believe that these requirements are sufficient to ensure compliance with the proposed emissions limits for continuous and batch process vents for the nine area source categories at issue in this proposed rule. We have, therefore, incorporated the subpart SS and subpart FFFF testing, monitoring, recordkeeping, and reporting requirements into this rule for those continuous and batch process vent subcategories that are subject to emission reduction limits.

We have reviewed the testing, monitoring, recordkeeping and reporting requirements for metal process vents in subpart NNNNNN of part 63 (standards for chromium compound manufacturing). We are proposing to require the testing and reporting requirements for chromium compound manufacturing in 40 CFR part 63, subpart NNNNNN for the subcategory of area sources (both new and existing) that emit more than 100 lb/yr of metal HAP. We are also proposing to require the monitoring requirements in subpart NNNNNN for new area sources that emit more than 100 lb/yr of metal HAP. For existing sources, however, we have determined that monitoring of control device parameters is needed to demonstrate compliance with the 95 percent reduction emission limit. Therefore, we are proposing that each existing source develop a site-specific monitoring plan to identify the operating parameters that will be monitored and the operating limit for each parameter. We are also proposing that existing sources keep records of the collected monitoring data.

We have reviewed the inspection, monitoring, recordkeeping, and reporting requirements in the NSPS for volatile organic liquid storage tanks (40 CFR part 60, subpart Kb), and we believe that these requirements are sufficient to assure compliance with the emission standards proposed in this rule for large storage tanks (i.e., the subcategory of storage tanks that exceed the capacity and MTVP thresholds in 40 CFR part 60, subpart Kb). Therefore, we are proposing to incorporate the inspection, monitoring, recordkeeping, and reporting requirements of 40 CFR part 60, subpart Kb into this rule to apply to the large storage tank subcategory.

We have reviewed the testing, monitoring, recordkeeping, and reporting requirements for cooling towers in 40 CFR part 63, subpart F. We have determined that these requirements are sufficient to assure compliance with the proposed surrogate monitoring standards for the cooling tower emission sources in this rule. Therefore, we are incorporating by reference the testing, monitoring, recordkeeping, and reporting requirements of subpart F and applying those requirements to the subcategory of area sources that are subject to the surrogate monitoring standards for cooling towers in this proposed rule.

Each owner or operator would be required to keep records identifying all wastewater streams with total partially soluble HAP concentrations greater than 10,000 ppmw and the disposition of all organic phases generated in decanters or other separation equipment. We have determined that these requirements are sufficient to assure compliance with the proposed standards for wastewater.

D. Why did we decide to exempt these area source categories from title V permitting requirements?

We are proposing exemption from title V permitting requirements for affected sources in the 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 area source categories for the reasons described below.

Section 502(a) of the CAA provides that the Administrator may 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'').

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).

In discussing these factors in the Exemption Rule, we further 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, in the Exemption Rule, we explained 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, support an exemption from title V for a particular source category.

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 section 502(a), whether exempting the area source categories would adversely affect public health, welfare or the environment. See 70 FR 15254–15255, March 25, 2005. As explained below, we propose that title V permitting is unreasonably burdensome for the area source categories at issue in this proposed rule. We have also determined that the proposed exemptions from title V would not adversely affect public health, welfare and the environment. Our rationale for this decision follows here.

In considering the exemption from title V requirements for sources in the categories affected by this proposed rule, we first compared the title V monitoring, recordkeeping, and reporting requirements (factor one) to the requirements in the proposed NESHAP for the area source categories. 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.

As part of the first factor, in addition to monitoring, we have considered the extent to which title V could potentially enhance compliance for area sources covered by this proposed rule through recordkeeping or reporting requirements. We have considered the various title V recordkeeping and reporting requirements, including requirements for a 6-month monitoring report, deviation reports, and an annual certification in 40 CFR 70.6 and 71.6.

For any chemical manufacturing area source, this proposed NESHAP requires an Initial Notification and a Notification of Compliance Status. This proposed rule also requires facilities to certify compliance with the emission limits and management practices. In addition, facilities must maintain records showing compliance with the required emission limits, management practices and deviation requirements. The information required in the deviation reports is similar to the information that must be provided in the deviation reports required under 40 CFR 70.6(a)(3) and 40 CFR 71.6(a)(3). In addition to documenting all deviations, sources are required to include in the semi-annual report any delay in repair of any leak or any process change that required a performance test or recalculation of emissions.

We acknowledge that title V might impose additional compliance requirements on these categories, but we have determined that the monitoring, recordkeeping and reporting requirements of the proposed NESHAP are sufficient to assure compliance with the provisions of the NESHAP, and title V would not significantly improve those compliance requirements.

For the second factor, we determine whether title V permitting would impose a significant burden on the area sources in the categories and whether that burden would be aggravated by any difficulty the source may have in obtaining assistance from the permitting agency. Subjecting any source to title V permitting imposes certain burdens and costs that do not exist outside of the title V program. EPA estimated that the average cost of obtaining and complying with a title V permit was $38,500 per source for a 5-year permit period, including fees. See Information Collection Request for Part 70 Operating Permit Regulations, January 2000, EPA ICR Number 1587.05. EPA does not have specific estimates for the burdens and costs of permitting these types of chemical manufacturing area sources; however, there are certain activities associated with the part 70 and 71 rules. These activities are mandatory and impose burdens on any facility subject to title V. They include reading and understanding permit program guidance and regulations; obtaining and understanding permit application forms; answering follow-up questions from permitting authorities after the application is submitted; reviewing and understanding the permit; collecting records; preparing and submitting monitoring reports on a 6-month or more frequent basis; preparing and submitting prompt deviation reports, as defined by the State, which may include a combination of written, verbal, and other communications methods; collecting information, preparing, and submitting the annual compliance certification; preparing applications for permit revisions every 5 years; and, as needed, preparing and submitting applications for permit revisions. In addition, although not required by the permit rules, many sources obtain the contractual services of consultants to help them understand and meet the permitting program's requirements. The ICR for part 70 provides additional information on the overall burdens and costs, as well as the relative burdens of each activity described here. Also, for a more comprehensive list of requirements imposed on part 70 sources (hence, burden on sources), see the requirements of 40 CFR 70.3, 70.5, 70.6, and 70.7.

In assessing the second factor for facilities affected by this proposal, we found that many of the facilities that would be affected by this proposed rule are small entities. These small sources lack the technical resources that would be needed to comply with permitting

requirements and the financial resources that would be needed to hire the necessary staff or outside consultants. As discussed above, title V permitting would impose significant costs on these area sources, and, accordingly, we conclude that title V is a significant burden for sources in these categories. Furthermore, given the number of sources in the categories, it would likely be difficult for them to obtain sufficient assistance from the permitting authority. Thus, we conclude that factor two supports title V exemption for these categories.

The third factor, which is closely related to the second factor, is whether the costs of title V permitting for these area sources would be justified, taking into consideration any potential gains in compliance likely to occur for such sources. We explained above under the second factor that the costs of compliance with title V would impose a significant burden on many of the approximately 450 facilities affected by the proposed rule. We also concluded in considering the first factor that, while title V might impose additional requirements, the monitoring, recordkeeping and reporting requirements in the proposed NESHAP assure compliance with the emission standards imposed in the NESHAP. In addition, below in our consideration of the fourth factor, we find that there are adequate implementation and enforcement programs in place to assure compliance with the NESHAP. Because 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.

The fourth factor we considered in determining if title V is unnecessarily burdensome is whether there are implementation and enforcement programs in place that are sufficient to assure compliance with the NESHAP without relying on title V permits. EPA has implemented regulations that provide States the opportunity to take delegation of area source NESHAP, and we believe that States delegated programs are sufficient to assure compliance with this NESHAP. See 40 CFR part 63, subpart E (States must have adequate programs to enforce the section 112 regulations and provide assurances that they will enforce all NESHAP before EPA will delegate the program).

We also noted that EPA retains authority to enforce this NESHAP anytime under CAA sections 112, 113 and 114. Also, States and EPA often conduct voluntary compliance assistance, outreach, and education programs (compliance assistance programs), which are not required by statute. We determined that these additional programs will supplement and enhance the success of compliance with these proposed standards. We believe that the statutory requirements for implementation and enforcement of this NESHAP by the delegated States and EPA and the additional assistance programs described above together are sufficient to assure compliance with these proposed standards without relying on title V permitting.

In light of all the information presented here, we believe that there are implementation and enforcement programs in place that are sufficient to assure compliance with the proposed standards without relying on title V permitting.

Balancing the four factors for these area source categories strongly supports the proposed finding that title V is unnecessarily burdensome. While title V might add additional compliance requirements if imposed, we believe that there would not be significant improvements to the compliance requirements in this proposed rule because the proposed rule requirements are specifically designed to assure compliance with the emission standards imposed on these area source categories. We further maintain that the economic and non-economic costs of compliance with title V would impose a significant burden on the sources. We determined that the high relative costs would not be justified given that there is likely to be little or no potential gain in compliance if title V were required. And, finally, there are adequate implementation and enforcement programs in place to assure compliance with these proposed standards. Thus, we propose that title V permitting is ''unnecessarily burdensome'' for these area source categories.

In addition to evaluating whether compliance with title V requirements is ''unnecessarily burdensome'', EPA also considered, consistent with guidance provided by the legislative history of section 502(a), whether exempting these area source categories from title V requirements would adversely affect public health, welfare, or the environment. Exemption of these area source categories from title V requirements would not adversely affect public health, welfare, or the environment because the level of control would remain the same if a permit were required. The title V permit program does not 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. As stated in our consideration of factor one for this category, title V would not lead to significant improvements in the compliance requirements applicable to existing or new area sources.

Furthermore, we explained in the Exemption Rule that requiring permits for the large number of area sources could, at least in the first few years of implementation, potentially adversely affect public health, welfare, or the environment by shifting State agency resources away from assuring compliance for major sources with existing permits to issuing new permits for these area sources, potentially reducing overall air program effectiveness. Based on the above analysis, we conclude that title V exemptions for these area sources will not adversely affect public health, welfare, or the environment for all of the reasons explained above.

For the reasons stated here, we are proposing to exempt these area source categories from title V permitting requirements.

V. Impacts of the Proposed Standards

A. What are the air impacts?

We estimate that the proposed standard will reduce organic HAP emissions by 211 tpy and metal HAP emissions by 44 tpy from the baseline level, for an overall HAP emission reduction of 255 tpy from the baseline. Table 3 of this preamble summarizes the estimated HAP reductions under the proposed standards for each type of emission point.

TABLE 3—ESTIMATED NATIONWIDE HAP EMISSION REDUCTIONS

Emission point	HAP emission reduction (tpy)	Urban HAP emission reduction (tpy)
Batch process vents	45	14
Continuous process vents	30	9
Metal HAP process vents (100 lb/yr)*	44	41
Storage tanks	5	5
Cooling tower systems	78	24
Transfer operations	1	0.2
Wastewater systems	51	16

TABLE 3—ESTIMATED NATIONWIDE HAP EMISSION REDUCTIONS—Continued

Emission point	HAP emission reduction (tpy)	Urban HAP emission reduction (tpy)
Total	255	110

* With a metal HAP subcategory of 400 lb/yr, the emission reductions would be 41 tons per year HAP and 37 tons per year urban HAP.

B. What are the cost impacts?

The total capital cost of the proposed standard is estimated at $2.9 million. The total annualized cost of the proposed standards, including the annualized cost of capital equipment, is estimated at $3.9 million/yr. For the co-proposed threshold of 400 lb/yr the total capital cost is estimated at $2.3 million and the total annualized cost is estimated at $2.6 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 proposed standard is estimated to impact a total of 450 existing area source facilities and 27 new sources in the next 3 years. Few of these facilities are small entities. Our analyses indicate that the proposed 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 0.07 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 220 megawatt-hour/yr of electricity and 260,000 standard cubic feet per year (scf/yr) of natural gas would be needed to operate control devices. We estimate that an additional 2.1 tpy of criteria pollutants would 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 would generate an additional 620 tpy of solid waste, including about 44 tpy of HAP metals. An estimated 8 tpy of organic material would be recovered from wastewater using gravity separation techniques.

The electricity, criteria pollutant, and solid waste impacts from controlling HAP metals would be lower under the co-proposed alternative that sets a higher size threshold between subcategories of metal HAP process vents. Overall, if the proposed rule includes this co-proposed alternative, we estimate that an additional 150 megawatt-hours of electricity would be needed, an additional 1.4 tpy of criteria pollutants would be generated, and an additional 580 tpy of solid waste would be generated (including 41 tpy of HAP metal and 8 tpy of organic material from wastewater controls).

VI. 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 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 proposed rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 2323.01.

The recordkeeping and reporting requirements in the proposed rule are based on the information collection requirements in the part 63 General Provisions (40 CFR part 63, subpart A). 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.

The proposed information collection requirements consist of an initial notification of applicability, notification for use of previous test data, notification of performance test, notification of compliance status report, performance tests, recordkeeping, and semiannual compliance reports.

The annual burden for this information collection averaged over the first 3 years of this ICR is estimated to total 11,488 labor hours per year at a cost of $0.87 million for the 450 existing area sources and 27 estimated new sources. Capital/startup costs for performance tests and monitoring equipment are estimated at $102,800, and operation and maintenance costs for the monitoring equipment are estimated at $11,900/yr. 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 part 63 are listed in 40 CFR part 9.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, EPA has established a public docket for this rule, which includes this ICR, under Docket ID number EPA–HQ–OAR–2008–0334. Submit any comments related to the ICR to EPA and OMB. See **ADDRESSES** section at the beginning of this notice for where to submit comments to EPA. Send comments to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Office for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after October 6, 2008, a comment to OMB is best assured of having its full effect if OMB receives it by November 5, 2008. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) 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 would not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

For the purposes of assessing the impacts of the proposed area source NESHAP 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 category); (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 the proposed rules on small entities, I certify that this action will not have a significant economic impact on a substantial number of 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 proposed rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to minimize the impact of this rule on all facilities, including small entities. Most facilities are in subcategories for which the proposed standards represent practices and controls that are common in the industry. The standards also include only the minimal amount of recordkeeping and reporting needed to demonstrate and verify compliance. For example, compliance reports are required only for semiannual reporting periods in which a deviation occurred, the owner or operator invoked delay of repair provisions for a cooling tower system, or a process change was made that potentially changed the conditions on which a subcategory determination was made.

We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538 for State, local, and tribal governments or the private sector. This action imposes no enforceable duty on any State, local, tribal governments or the private sector.

This action 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. The proposed rules contain no requirements that apply to such governments, and impose no obligations upon them.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' are defined in the Executive Order to include regulations that 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.''

The proposed 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 action imposes requirements on owners and operators of specified area sources and not State and local governments. Thus, Executive Order 13132 does not apply to the proposed rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local government, EPA specifically solicits comments on the proposed rule from State and local officials.

F. Executive Order 13175

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This action would not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. The 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.

EPA specifically solicits additional comment on this proposed action from tribal officials.

G. Executive Order 13045: Protection of Children From Environmental Health 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 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 proposed rule is not likely to have any adverse energy impacts.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113 (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.

The rulemaking involves technical standards. Therefore, EPA conducted a search to identify potentially applicable VCS. However, we identified no such standards, and none were brought to our attention in comments. Therefore, EPA has decided to use Methods 5, 5D, and 29.

EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially applicable VCS and to explain why such standards should be used in this regulation.

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 and amendments.

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 action will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it 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 proposed rule establishes national standards for each area source category.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: September 19, 2008.

Stephen L. Johnson,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is proposed to be 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 Source Categories

Applicability and Compliance Dates

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 chemical manufacturing operations that process, use, produce, or generate any of the HAP listed in Table 1 to this subpart (Table 1 HAP) and are located at an area source of HAP emissions. Feedstocks and products that contain Table 1 HAP are defined to be materials that contain greater than 0.1 percent for carcinogens, as defined by OSHA 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 for the material.

(b) Chemical manufacturing operations include all process equipment and activities involved in the production of materials described by NAICS code 325. Chemical manufacturing operations also include each storage tank, transfer rack, cooling tower system, wastewater system, pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system associated with the production of such materials.

(c) This subpart does not apply to the operations specified in paragraphs (c)(1) through (5) of this section.

(1) The following chemical manufacturing area source categories listed pursuant to CAA section 112(c)(3) or 112(k)(3)(B)(ii) that are subject to or will be subject to area source standards under this part:

(i) Manufacture of Paint and Allied Products

(ii) Manufacture of Chemical Preparations

(iii) Mercury Cell Chlor-Alkali Plants subject to subpart IIIII of this part.

(iv) Manufacture of polyvinyl chloride resins subject to subpart DDDDDD of this part.

(v) Manufacture of acrylic and modacrylic fibers and filaments subject to subpart LLLLLL of this part.

(vi) Manufacture of carbon black subject to subpart MMMMMM of this part.

(vii) Manufacture of chromium compounds subject to subpart NNNNNN of this part.

(2) The following chemical manufacturing processes or chemical products 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 occur 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 HAP solvent or if an intended purpose of the operation is to remove residual HAP monomer.

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

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

(4) Quality assurance/quality control laboratories.

(5) Boilers and incinerators 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.

(d) This subpart applies to each new or existing affected source. The affected source is the chemical manufacturing operations located at a facility that meets the criteria specified in paragraphs (a) and (b) of this section.

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

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

(e) 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 3 years after the date of publication of the final rule in the **Federal Register**.

(g) If you startup a new affected source on or before the date of publication of the final rule in the **Federal Register**, you must achieve compliance with the applicable provisions of this subpart no later than the date of publication of the final rule in the **Federal Register**.

(h) If you startup a new affected source after the date of publication of the final rule in the **Federal Register**, 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) If you have an affected source with batch process vents, all process equipment in which organic HAP is used to process material must be covered when in use, and closure mechanisms on other openings and access points in process equipment must be in the closed position during operation, except when operator access is necessary. You must conduct inspections at least quarterly to demonstrate compliance with these requirements and to determine if process equipment is sound and free of leaks. You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. You must keep records of the dates and results of each inspection and the dates of equipment repairs. You must also comply with § 63.11496(a) and Item 1 in Table 2 to this subpart, as applicable.

(b) If you have an affected source with continuous process vents, all process equipment in which organic HAP is used to process material must be covered when in use, and closure mechanisms on other openings and access points in process equipment must be in the closed position during operation, except when operator access is necessary. You must conduct inspections at least quarterly to demonstrate compliance with these requirements and to determine if process equipment is sound and free of leaks. You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. You must keep records of the dates and results of each inspection and the dates of equipment repairs. You must also comply with § 63.11496(b) and Item 2 in Table 2 to this subpart, as applicable.

(c) If you have an affected source with metal HAP process vents, all process equipment in which metal HAP is present during the process must be covered when in use, and closure mechanisms on other openings and access points in process equipment must be in the closed position during operation, except when operator access is necessary. You must conduct inspections at least quarterly to determine compliance with these requirements and to determine if the process equipment is sound and free of leaks. You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. You must keep records of the dates and results of each inspection and the dates of equipment repairs. You must also comply with § 63.11496(f) and Item 3 in Table 2 to this subpart, as applicable.

(d) All openings and access points in storage tanks that are used to store liquid that contains organic HAP at an affected source must be covered, and the covers must be in the closed position, except when operator access is necessary. You must conduct inspections at least quarterly to determine compliance with these requirements and to determine if the storage tank is sound and free of leaks. You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. You must keep records of the dates and results of each inspection and the date each leaking tank is removed from service or repaired. You must also comply with § 63.11497 and Item 4 in Table 2 to this subpart, as applicable.

(e) For all equipment in organic HAP service, as defined in § 63.11502, you must comply with § 63.11498.

(f) For all transfer operations at an affected source, you must not allow any transferred material that contains organic HAP to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the actions specified in paragraphs (f)(1) through (5) of this section.

(1) Minimize spills of material containing HAP.

(2) Clean up spills of materials containing HAP as expeditiously as practicable.

(3) Cover all open containers of liquid containing HAP when not in use.

(4) Minimize the amount of HAP-containing material sent to wastewater collection systems.

(5) Use a submerged fill pipe that discharges no more than 12 inches from the bottom of the cargo tank.

(g) For each cooling tower system at an affected source, you must comply with paragraph (g)(1) or (2) of this section, as applicable.

(1) For each cooling tower system with a water recirculation rate less than 8,000 gallons per minute (gal/min) that serves heat exchangers with process fluid that contains any HAP listed in Table 4 to 40 CFR part 63, subpart F, you must develop and operate in accordance with a cooling tower system inspection plan. The plan must describe the inspections to be performed that will provide evidence of hydrocarbons in the recirculating water. Among other things, inspections may include checks for visible floating hydrocarbon on the water, hydrocarbon odor, discolored water, and/or chemical addition rates. The plan must also describe corrective actions to be taken in response to inspection results that indicate the presence of a leak. You must repair any leak within 45 calendar days after detection of the leak, or document the reason for any delay of repair. You must conduct inspections at least once per quarter. You must maintain a log or checklist to document the dates and results of inspections and the dates and types of corrective actions taken after detecting leaks.

(2) For each cooling tower with a water recirculation rate greater than or equal to 8,000 gal/min that serves heat exchangers with process fluid that contains any HAP listed in Table 4 to 40 CFR part 63, subpart F, you must comply with the emission standards and other requirements specified in § 63.11500(b) and Item 5 in Table 2 to this subpart.

(h) You must comply with the applicable standards in § 63.11500(a) and Items 7 and 8 in Table 2 to this subpart, as applicable, for all wastewater streams that contain HAP listed in Table 3 to this subpart.

§ 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. If uncontrolled organic HAP emissions from all batch process vents are equal to or greater than 19,000 lb/yr, you must also comply with the emission limits and other requirements in Item 1 in Table 2 to this subpart.

(1) You must determine the sum of organic HAP emissions from all of your batch process vents using test data or the procedures in § 63.1257(d)(2)(i) and (ii) of subpart GGG of this part and § 63.2460(b)(1) through (5) of subpart FFFF of this part. Emissions for a standard batch in a process may be used to represent emissions from each batch in that process. You must maintain records of the calculations. Calculations are not required if you comply with § 63.2460(b)(5) of subpart FFFF of this part. References in § 63.2460(b) of subpart FFFF to Group 1 batch process vents within a process means vents that must meet the emission standards for batch process vents in Table 2 to this subpart.

(2) As an alternative to calculating actual emissions for each process, you may elect to estimate emissions for each process based on the emissions for the worst-case process. The worst-case process means the process at the affected source with the highest organic HAP emissions per batch. 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 are less than 19,000 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 emissions. If projected emissions increase to 19,000 lb/yr or more, you must comply with one of the compliance options for batch process vents in Item 1 in Table 2 to this subpart before operating 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 chemical manufacturing operations is less than 19,000 lb/yr. You must provide data and rationale in your notification of compliance status report explaining why the organic HAP usage will be less than 19,000 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. If the 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 Item 2 in Table 2 to this subpart.

(1) You must determine the TRE index value according to the procedures in § 63.115(d) of subpart G of this part, 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 Item 2 in Table 2 to this subpart.

(ii) The reference to § 63.113(a) in § 63.115(d) of subpart G of this part is not applicable for the purposes of this paragraph.

(iii) The term ''Group 1'' vent in § 63.115(d) of subpart G of this part means a continuous process vent with a TRE index value less than 1.0.

(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 Item 2 to Table 2 to this subpart before operating under the new operating conditions. You must maintain records of all TRE calculations.

(3) If a recovery device 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 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 most stringent standard in Table 2 of this subpart that applies to any portion of the combined stream. 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 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 batch process vents or continuous process vents, you must use a halogen reduction device to meet the emission limit in either paragraph (d)(1) or (2) of this section in accordance with § 63.994 of subpart SS of this part 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 Table 2 to this subpart and § 63.2505 of subpart FFFF of this part are specified in paragraphs (e)(1) through (4) 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 Table 2 to this subpart and § 63.11496(a) and (b).

(2) Section 63.2505(a)(2) of subpart FFFF does not apply.

(3) When § 63.2505(b) of subpart FFFF references § 63.2445 it means § 63.11494.

(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.

(f) *Emissions from metal HAP process vents.* You must comply with the requirements in paragraphs (f)(1) through (3) of this section for metal HAP emissions from your metal HAP process vents. If the uncontrolled metal HAP emissions from your metal HAP process

vents is equal to or greater than [100 lb/yr or 400 lb/yr], then you must also comply with the emission limits and other requirements in Item 3 in Table 2 to this subpart.

(1) You must determine and sum the emissions from all of the metal HAP process vents, except you are not required to determine the emissions if you control metal HAP process vents in accordance with Item 3 in Table 2 to this subpart. 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 metal HAP emissions are less than [100 lb/yr or 400 lb/yr], then you must keep records of either the number of batches operated per month or the process operating hours, whichever is consistent with the basis used in the initial estimate of emissions per year. Also, you must reevaluate your total emissions before you make any process or operational change that affects emissions of metal HAP. If emissions will increase to [100 lb/yr or 400 lb/yr] or more, then you must comply with one of the compliance options for metal HAP process vents in Item 3 in Table 2 to this subpart before operating under the new operating conditions. You must keep records of all recalculated emissions determinations.

(3) If you have an existing source, you must comply with the performance testing and monitoring requirements in § 63.11410(h) through (j)(1) of subpart NNNNNN of this part, except as specified in paragraphs (f)(3)(i) through (v) of this section. If you have a new source, you must comply with the performance testing, monitoring, and recordkeeping requirements in § 63.11410(f) through (j)(1) of subpart NNNNNN of this part, except as specified in paragraphs (f)(3)(i) through (v) of this section.

(i) When § 63.11410(i) of subpart NNNNNN references an emissions limit in § 63.11409(b), it means Table 2 to this subpart.

(ii) 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) As an alternative to conducting a performance test using Method 5 or 5D to determine the concentration of particulate matter, 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.

(iv) If you comply with the monitoring requirements in § 63.11410(h) of subpart NNNNNN of this part, then you must keep records of operating parameters that you monitor to demonstrate continuous compliance.

(v) The requirement in § 63.11410(h) of subpart NNNNNN of this part to submit the monitoring plan to EPA or the delegated authority for approval does not apply. For an existing source, the requirement to prepare a monitoring plan applies to fabric filter controls as well as other types of controls. You must maintain the plan onsite and make it available on request.

§ 63.11497 What are requirements for storage tanks?

You must comply with the emission limits and other requirements in Item 4 in Table 2 to this subpart for organic HAP emissions from your storage tanks.

§ 63.11498 What are the requirements for equipment leaks?

(a) You must perform quarterly leak inspections of all equipment in organic HAP service. For these inspections, detection methods incorporating sight, sound, and smell are acceptable.

(b) You must repair or replace leaking equipment within 15 calendar days after detection of the leak, or document the reason for any delay of repair.

(c) You must record the following information in a log book:

(1) The date and results of each inspection, including the number and location of any liquid or vapor leak.

(2) The date of repair and the reason for any delay of repair beyond 15 calendar days.

§ 63.11499 What are the requirements for transfer operations?

You may comply with the emission standards in Item 6 in Table 2 to this subpart for organic HAP emissions from your transfer operations in lieu of submerged loading requirement in § 63.11495(f)(5).

§ 63.11500 What are the requirements for wastewater systems and cooling tower systems?

(a) You must comply with the requirements in paragraph (a)(1) of this section and in Item 7 in Table 2 to this subpart for all wastewater streams. If the partially soluble HAP concentration in a wastewater stream is equal to or greater than 10,000 parts per million by weight (ppmw), then you must also comply with the emission standards in Item 8 in Table 2 to this subpart for that wastewater stream. Partially soluble HAP are listed in Table 3 to this subpart.

(1) *Determine concentrations.* You must determine the total concentration of partially soluble HAP in each wastewater stream using the procedures in § 63.144(b) of subpart G of this part, except as specified in paragraphs (a)(1)(i) through (v) of this section. 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.

(i) References in § 63.144(b) of subpart G to Table 9 compounds mean the compounds listed in Table 3 to this subpart.

(ii) References in § 63.144(b) of subpart G to Table 8 compounds do not apply.

(iii) References in § 63.144(b) of subpart G to Group 2 wastewater streams mean streams determined to have total partially soluble HAP concentrations below 10,000 ppmw.

(iv) References in § 63.144(b) of subpart G to flow weighted total annual average concentration mean flow weighted average concentration per chemical manufacturing process (i.e., each process in a flexible operation unit is evaluated separately). If the concentrations in a specific stream vary over the period of discharge but are always less than 10,000 ppmw, then you may elect to determine the maximum concentration only and maintain records containing sufficient information to document why the determined concentration is the maximum for that wastewater stream.

(v) Section 63.144(b)(2) of subpart G does not apply.

(2) [Reserved].

(b) If the water recirculation rate in your cooling tower system is equal to or greater than 8,000 gal/min, then you must comply with the requirements specified in Item 5 in Table 2 to this subpart and in paragraphs (b)(1) through (3) of this section for organic HAP emissions from your cooling tower system.

(1) Monitoring shall be no less frequent than quarterly.

(2) The reference in § 63.104(f)(2) of subpart F to ''the next semi-annual periodic report required by § 63.152(c)'' means the next semi-annual compliance report required by § 63.11501(f).

(3) The reference in § 63.104(f)(1) of subpart F 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(d).

§ 63.11501 What are my 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 4 to this subpart.

(b) *Notification of compliance status.* Your notification of compliance status required by § 63.9(h) must include the following additional information as applicable:

(1) This certification of compliance, signed by a responsible official, for the process vent standards in § 63.11495 and § 63.11496:

(i) ''This facility complies with the management practices in § 63.11495 for batch process vents'' and, if applicable, ''This facility complies with the requirements in § 63.11496(a) for organic HAP emissions from batch process vents by routing emissions from a sufficient number of vents through a closed-vent system to any combination of control devices.''

(ii) ''This facility complies with the management practices in § 63.11495 for continuous process vents'' and, if applicable, ''This facility complies with the requirements in § 63.11496(b) for organic HAP emissions from continuous process vents by venting emissions through a closed vent system to any combination of control devices.''

(iii) ''This facility complies with the management practices in § 63.11495 for metal HAP process vents'' and, if applicable, ''This facility complies with the requirements in § 63.11496(f) for metal HAP process vents by venting metal HAP emissions through a closed vent system to a control device according to the requirements in § 63.11496(f).''

(2) This certification of compliance, signed by a responsible official, for the storage tank standards in § 63.11495 and § 63.11497: ''This facility complies with the management practices in § 63.11495 for storage tanks'' and, if applicable, ''This facility complies with the requirements in § 63.11497 for storage tanks by operating and maintaining a floating roof or closed vent system and control device in accordance with 40 CFR 60.112b.''

(3) This certification of compliance, signed by a responsible official, for the equipment leak standards in § 63.11498: ''This facility complies with the requirements for equipment leaks in § 63.11498 for all equipment that contains or contacts organic HAP.''

(4) This certification, signed by a responsible official, for the transfer operation standards in § 63.11495 and § 63.11499: ''This facility complies with the management practices in § 63.11495 for transfer operations'' and, if applicable, ''This facility complies with the requirements in § 63.11499 for transfer operations.''

(5) This certification of compliance, signed by a responsible official, for the cooling tower standards in § 63.11495 and § 63.11500: ''This facility complies with the management practices in § 63.11495 for cooling tower systems'' or ''This facility complies with the requirements in § 63.11500 for cooling tower systems.''

(6) This certification of compliance, signed by a responsible official, for the wastewater standards in § 63.11500: ''This facility complies with the requirements in § 63.11500 to treat each wastewater stream'' and, if applicable, ''This facility complies with the requirements in § 63.11500 for each stream that contains partially soluble HAP at a concentration equal to or greater than 10,000 ppmw.''

(7) This certification of compliance, signed by a responsible official, for the requirement to prepare a startup, shutdown, and malfunction plan: ''This facility has prepared a startup, shutdown, and malfunction plan in accordance with the requirements of 40 CFR 63.6(e)(3).''

(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) of subpart A. If you are subject, you must comply with the recordkeeping requirements of § 63.10(b)(2) of subpart A and the requirements specified for subpart SS (process vents), 40 CFR part 60, subpart Kb (storage tanks), and subpart F (cooling tower systems) as specified in this subpart.

(d) *Semiannual compliance reports.* You must submit a semiannual compliance report as required by § 63.10(e)(3) only for semiannual reporting periods during which a deviation occurred, you invoked the delay of repair provisions for cooling tower systems, you do not repair an equipment leak or a leak in any process vessel or any storage tank within 15 days or any cooling tower with a recirculation rate less than 8000 gal/min within 45 days, or you implemented a process change. Your report must include the information specified in paragraphs (d)(1) through (3) of this section, if applicable.

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

(2) You must include the information specified in § 63.104(f)(2) of subpart F for each delay of repair of each cooling tower with a recirculation rate greater than or equal to 8,000 gal/min.

(3) You must provide information on the date of the equipment leak or the leak in the process vessel, storage tank, or cooling vessel with a recirculation rate less than 8000 gal./min. was identified, the date the leak was repaired, and the reason for the delay in repair.

(4) 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.

§ 63.11502 What definitions apply to this subpart?

Terms used in this subpart have the meaning given them in the Clean Air Act, § 63.2, subpart SS (§ 63.981), 40 CFR 60.111b, subpart F (§ 63.101), subpart G (§ 63.111), subpart FFFF (§ 63.2550), and in this section as follows:

Batch process vent means the point of discharge from a unit operation in chemical manufacturing operations of a gas stream that contains organic HAP and flows intermittently.

Continuous process vent means the point of discharge from a unit operation in chemical manufacturing operations of a gas stream that originates as a continuous flow from a continuous operation and contains organic HAP.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emissions limitation or management practice;

(2) 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; or

(3) Fails to meet any emissions limitation or management practice in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation systems that contains or contacts organic HAP as defined in section 112 of the CAA.

In organic HAP service means that a piece of equipment either contains or

contacts a fluid (liquid or gas) that contains one or more organic HAP.

Metal HAP means the compounds containing metals listed as HAP in section 112 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 unit operation in chemical manufacturing operations at an affected source.

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

Recovery device means an individual unit of equipment used for the purpose of recovering chemicals from gas streams 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.

Responsible official means responsible official as defined in 40 CFR 70.2.

Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP that are used in or produced by chemical manufacturing operations. Surge control vessels and bottoms receivers are considered to be storage tanks for the purposes of this subpart. 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 and without emissions to the atmosphere; and

(3) Process vessels.

Total organic HAP means all of the organic HAP as defined in section 112 of the CAA.

Transfer operations means all loading into tank trucks and rail cars of liquid containing organic HAP from a transfer rack. A transfer rack is the system used to fill tank trucks and railcars at a single geographic site. Transfer operations do not include the loading to other types of containers such as cans, drums, and totes.

Wastewater means water that is discarded from an affected source and that contains any HAP listed in Table 9 to 40 CFR part 63, subpart G. Wastewater means both process wastewater and maintenance wastewater.

§ 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 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 under § 63.7(e)(2)(ii) and (f). 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 §§ 63.11495, 63.11496, 63.11497, 63.11499, and 63.11500, you must comply with the requirements for process vents, storage tanks, cooling towers, transfer operations, and wastewater as shown in the following table.

TABLE 2 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS, MANAGEMENT PRACTICES, AND OTHER COMPLIANCE REQUIREMENTS

For . . .	You must . . .	And you must . . .
1. Batch process vents	a. If total organic HAP emissions are equal to or greater than 19,000 lb/yr, reduce collective uncontrolled total organic HAP emissions from the sum of all batch process vents by 90 percent by weight or greater 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); or	i. Comply with the requirements of § 63.982(c) and the requirements referenced therein, and ii. Comply with subpart SS including exceptions and alternatives to requirements in subpart SS as specified in §§ 63.2450(g) through (i), (k), (l), (m)(3), (p), (q), and § 63.2460(c), except that references to emission limits in Table 2 of subpart FFFF mean the emission limits in item 1.a. of this Table, and references to reporting requirements in § 63.2520 mean § 63.11501 of this subpart, and iii. If you combust a halogenated vent stream, comply with the requirements for halogen scrubbers in § 63.11496(d).
	b. Route emissions from batch process vents containing at least 90 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), or	Comply with the requirements of § 63.982(b) and the requirements referenced therein.
	c. Comply with the alternative standard specified in § 63.2505, except as specified in § 63.11496(e), or	Not applicable.
	d. Comply with combinations of the requirements in items a., b., and c. of this Table for different groups of batch process vents.	Comply with the additional requirements specified above for items a., b., and c., as applicable.
2. Each continuous process vent with a TRE ≤1.0.	a. Reduce emissions of organic HAP by 95 percent by weight or greater by routing emissions through a closed vent system to any combination of control devices (except a flare); or	i. Comply with the requirements of § 63.982(c) and the requirements referenced therein, and ii. Comply with exceptions and alternatives to requirements in subpart SS as specified in § 63.2450(g) through (i), (k), (l), (m)(3), (p), and (q), except that references to emission limits in Table 1 of subpart FFFF mean the emission limits in item 2.a. of this Table, and references to reporting requirements in § 63.2520 mean § 63.11501 of this subpart. iii. If you combust a halogenated vent stream, comply with the requirements for halogen scrubbers in § 63.11496(d).
	b. Reduce emissions of total organic HAP by routing emissions through a closed-vent system to a flare (except that a flare may not be used to control halogenated vent streams), or	Comply with the requirements of § 63.982(b) and the requirements referenced therein.
	c. Comply with the alternative standard specified in § 63.2505, except as specified in § 63.11496(e).	Not applicable.
3. Metal process vents	a. If total metal HAP emissions are equal to or greater than [100 lb/yr or 400 lb/yr], reduce uncontrolled emissions of metal HAP emissions by 95 percent by weight or greater by routing emissions from all metal process vents through a closed-vent system to a control device.	Comply with § 63.11496(f).
4. Each storage tank	a. Operate and maintain a floating roof or closed-vent system and control device in accordance with 40 CFR 60.112b.	i. Comply with the applicable inspection and testing requirements in 40 CFR 60.113b(a), (b), or (c) for the selected control option, and ii. Comply with the applicable recordkeeping and reporting requirements in 40 CFR 60.115b and 40 CFR 60.116b for the selected control option.

TABLE 2 TO SUBPART VVVVVV OF PART 63—EMISSION LIMITS, MANAGEMENT PRACTICES, AND OTHER COMPLIANCE REQUIREMENTS—Continued

For . . .	You must . . .	And you must . . .
5. Each cooling tower system with a recirculation rate ≥8,000 gal/min.	a. Comply with the requirements of § 63.104(c), except as specified in § 63.11500(b), or b. Operate in accordance with § 63.104(a)	i. Repair each leak in accordance with § 63.104(d) and (e), and ii. Keep records and submit reports in accordance with § 63.104(f), except as specified in § 63.11500(b). Keep records documenting compliance with the specified operating conditions.
6. Transfer operations	a. Control total organic HAP emissions from all transfer operations using any combination of submerged loading, vapor balancing, and routing displaced vapors through a closed-vent system to a control device.	Not applicable.
7. Wastewater stream	a. Discharge to onsite or offsite treatment	Maintain records identifying each wastewater stream and documenting the type of treatment that it receives.
8. Wastewater stream containing partially soluble HAP at a concentration ≥10,000 ppmw.	a. Use a decanter or other equipment based on the operating principle of gravity separation to separate the water phase from the organic phase(s).	i. For the water phase: comply with the requirements in item 7 of this table, and ii. For the organic phase(s): Recycle to a process, use as fuel, or dispose as hazardous waste, and iii. Keep records of the wastewater streams subject to this requirement and the disposition of the organic phase(s).

TABLE 3 TO SUBPART VVVVVV OF PART 63—PARTIALLY SOLUBLE HAP

As required in § 63.11500(a), you must comply with emission limits for wastewater streams that contain the partially soluble HAP listed in the following table.

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
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

TABLE 3 TO SUBPART VVVVVV OF PART 63—PARTIALLY SOLUBLE HAP—Continued

As required in § 63.11500(a), you must comply with emission limits for wastewater streams that contain the partially soluble HAP listed in the following table.

Partially soluble HAP name	CAS No.
41. Methyl-t-butyl ether	1634044
42. Methylene chloride	75092
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

TABLE 4 TO SUBPART VVVVVV OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART VVVVVV

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.

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), (e)(3)(i), (e)(3)(iii)–(e)(3)(ix), (f) (g), (i), (j).	Compliance with Standards and Maintenance Requirements.	Yes.	
63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv).	Reserved	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 standards or require a continuous opacity monitoring system.
63.7	Performance Testing Requirements	Yes.	
63.8(a)(1), (a)(2), (a)(4), (b), (c)(1)–(c)(3), (f)(1)–(5).	Monitoring Requirements	Yes.	
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 § 63.11495.
63.8(c)(5)		No	Subpart VVVVVV does not require continuous opacity monitoring systems (COMS).
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 § 63.11495(e).

TABLE 4 TO SUBPART VVVVVV OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART VVVVVV—Continued

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.

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.8(g)(1)–(g)(4)		Yes	Data reduction requirements apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11495(d). 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), (j).	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 § 63.11495(d).
63.9(h)(1)–(h)(3), (h)(5)–(h)(6)		Yes	Except Subpart VVVVVV does not contain opacity or VE limits.
63.10(a)	Recordkeeping Requirements	Yes.	
63.10(b)(1)		Yes.	
63.10(b)(2)(i)–(b)(2)(v)		Yes.	
63.10(b)(2)(vi), (x), (xi), (xiii)		Yes	Apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11495(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(d).
63.10(c)(7)–(c)(8), (c)(10)–(c)(12), (c)(15)		Yes.	
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)		Yes.	
(e)(1)–(e)(2)		Yes	Apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(d).
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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