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National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing and Miscellaneous Coating Manufacturing; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[FRL–7150–8]

RIN 2060–AE82

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing and Miscellaneous Coating Manufacturing

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: This action proposes national emission standards for hazardous air pollutants (NESHAP) for the Miscellaneous Organic Chemical Manufacturing source category and the Miscellaneous Coating Manufacturing source category. The Miscellaneous Organic Chemical Manufacturing source category includes many previously unregulated organic chemical processing units at major sources. The Miscellaneous Coating Manufacturing source category includes the manufacture of a number of coatings including paints, inks, and adhesives. The EPA has determined that both source categories include facilities that are major sources of hazardous air pollutants (HAP), including toluene, methanol, xylene, hydrogen chloride, and methylene chloride. Methylene chloride is considered to be a probable human carcinogen and the other pollutants can cause noncancer health effects in humans. These proposed NESHAP will implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources in the relevant source categories to meet HAP emission limitations and work practice standards reflecting the application of the maximum achievable control technology (MACT). The proposed subpart FFFF will reduce HAP emissions by approximately 28,000 Megagrams per year (Mg/yr) (30,900 tons per year (tpy)), and proposed subpart HHHHH will reduce HAP emissions by approximately 5,670 Mg/yr (6,250 tpy).

DATES: Comments: Submit comments on or before June 3, 2002.

Public Hearing: If anyone contacts the EPA requesting to speak at a public hearing by April 24, 2002, a public hearing will be held at 10 a.m. on May 6, 2002.

ADDRESSES: *Comments:* By U.S. Postal Service, send comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–96–04, U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460. In person or by courier, deliver comments (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention Docket Number A–96–04, U.S. EPA, 401 M Street, SW, Washington, DC 20460. The EPA requests a separate copy also be sent to the contact person listed below (see **FOR FURTHER INFORMATION CONTACT**).

Public Hearing: If a public hearing is held, it will be held in the EPA Office of Administration Auditorium, Research Triangle Park, North Carolina, or at an alternate site nearby.

Docket: Docket No. A–96–04 contains supporting information used in developing the NESHAP. The docket is located at the U.S. EPA, 401 M Street, SW., Washington, DC 20460 in room M–1500, Waterside Mall (ground floor), and may be inspected from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: For information about the proposed NESHAP, contact Mr. Randy McDonald, Organic Chemicals Group, Emission Standards Division (MD–13), U.S. EPA, Research Triangle Park, North Carolina, 27711, telephone number (919) 541–5402, electronic mail address mcdonald.randy@epa.gov. For information about the public hearing, contact Ms. Maria Noell, Organic Chemicals Group, Emission Standards Division (MD–13), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5607, electronic mail address noell.maria@epa.gov.

SUPPLEMENTARY INFORMATION:

Comments: Comments and data may be submitted by electronic mail (e-mail) to: *a-and-r-docket@epa.gov.* Electronic comments must be submitted either as an ASCII file to avoid the use of special characters and encryption problems or on disks in WordPerfect® version 5.1, 6.1 or Corel 8 file format. All comments and data submitted in electronic form must note the docket number: A–96–04. No confidential business information (CBI) should be submitted by e-mail. Electronic comments may be filed online at many Federal Depository Libraries.

Commenters wishing to submit proprietary information for consideration must clearly distinguish such information from other comments and clearly label it as CBI. Send submissions containing such proprietary information directly to the following address, and not to the public docket, to ensure that proprietary information is not inadvertently placed in the docket: Attention: Mr. Randy McDonald, c/o OAQPS Document Control Officer (Room 740B), U.S. EPA, 411 W. Chapel Hill Street, Durham, NC 27701. The EPA will disclose information identified as CBI only to the extent allowed by the procedures set forth in 40 CFR part 2. If no claim of confidentiality accompanies a submission when it is received by the EPA, the information may be made available to the public without further notice to the commenter.

Public Hearing. Persons interested in presenting oral testimony or inquiring as to whether a hearing is to be held should contact Ms. Maria Noell at least 2 days in advance of the public hearing. Persons interested in attending the public hearing must also call Ms. Noell to verify the time, date, and location of the hearing. The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning these proposed NESHAP.

Docket. The docket is an organized and complete file of all the information considered by the EPA in the development of these proposed NESHAP. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated NESHAP and their preambles, the contents of the docket will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the CAA.) The regulatory text and other materials related to these proposed NESHAP are available for review in the docket or copies may be mailed on request from the Air Docket by calling (202) 260–7548. A reasonable fee may be charged for copying docket materials.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of this proposed NESHAP will also be available on the WWW through the Technology Transfer Network (TTN). Following the Administrator's signature, a copy of the proposed NESHAP will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Regulated Entities. Categories and entities potentially regulated by this action include those listed in the following table.

Category	SIC	NAICS	Examples of regulated entities
Industry	282, 283, 284, 285, 286, 287, 289, 386.	3251, 3252, 3253, 3254, 3255, 3256, 3259, except 325131 and 325181.	Producers of specialty organic chemicals, paints, coatings, adhesives, inks, explosives, certain polymers and resins, and certain pesticide intermediates.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.2435 and § 63.7985 of the proposed NESHAP. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Outline. The information presented in this preamble is organized as follows:

I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and some area sources of HAP, and to establish NESHAP for the listed source categories and subcategories. The categories of major sources covered by today's proposed NESHAP are described in section I.C. Major sources of HAP are those that are located within a contiguous area and under common control and have the potential to emit greater than 9.1 Mg/yr (10 tons/yr) of any one HAP or 22.7 Mg/yr (25 tons/yr) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emissions reductions, any nonair quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that all major sources achieve the level of control already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources (or the best-performing 5 sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. In considering whether to establish standards more stringent than the floor, we must consider cost, nonair quality health and environmental impacts, and energy requirements.

C. What Is the History of the Source Categories?

1. Initial Source Categories

Section 112 of the CAA requires us to establish rules for categories of emission sources that emit HAP. On July 16, 1992, we published an initial list of 174 source categories to be regulated (57 FR 31576). The listing was our best attempt to identify major sources of HAP by manufacturing category. Following the publication of this listing, we published a schedule for the promulgation of emission standards for each of the 174 listed source categories. At the time the initial list was published, we recognized that we might have to revise the list

from time to time as better information became available.

2. Changes to the Initial List

Based on information we collected in 1995, we realized that several of the original source categories on the list had similar process equipment, emission characteristics and applicable control technologies. Additionally, many of these source categories were on the same schedule for promulgation, by November 15, 2000. Therefore, we decided to combine a number of source categories from the original listing into one broad set of emission standards. On November 7, 1996, we published a notice combining 21 source categories from the initial list of 174 into the Miscellaneous Organic Chemical Processes source category (61 FR 57602).

Twelve of the 21 source categories were listed under the miscellaneous process industry group on the initial list. These include: benzyltrimethylammonium chloride production, carbonyl sulfide production, chelating agents production, chlorinated paraffins production, ethylidene norbornene production, explosives production, hydrazine production, photographic chemicals production, phthalate plasticizers production, rubber chemicals production, symmetrical tetrachloropyridine production, and OBPA/1,3-diisocyanate production. Eight of the 21 source categories were listed under the polymers and resins industry group. These include: alkyd resins production, polyester resins production, polyvinyl alcohol production, polyvinyl acetate emulsions production, polyvinylbutyral production, polymerized vinylidene chloride production, polymethylmethacrylate production, and maleic anhydride copolymers production. The last of the 21 source categories is the manufacture of paints, coatings, and adhesives.

Along with these 21 source categories, the Miscellaneous Organic Chemical Processes category was also defined in the **Federal Register** notice to include organic chemical manufacturing defined by SIC codes 282, 284, 285, 286, 287, 289, and 386 which are not being covered by any other MACT standard. One example is the coverage of batch process vents from reactors in the synthetic organic chemical manufacturing industry (SOCMI) that are excluded from the provisions of the Hazardous Organic NESHAP (HON). Another example, also an exclusion in the HON, is the coverage of HAP emissions from SOCMI processes in which HAP are used only as solvents. The Miscellaneous Organic Chemical Processes source category would also cover production of pesticide intermediates that are not covered by the Pesticide Active Ingredient NESHAP, as well as materials not considered primary products under the Group I and IV Polymers and Resins NESHAP. In addition to the 21 listed source categories, two other source categories are to be subsumed into the Miscellaneous Organic Chemical Processes source category. These are quaternary ammonium compounds production and ammonium sulfate production from caprolactam by-product plants.

3. Grouping Into Two Source Categories

On November 18, 1999, we published a **Federal Register** notice describing changes to the source category list (64 FR 63035). At that time, we also described our intent to group the source categories into two new source categories instead of one. The two new source categories are called the ''Miscellaneous Organic Chemical Manufacturing'' source category and the ''Miscellaneous Coating Manufacturing'' source category. During our review of the data, we decided that the emission sources in the miscellaneous coating manufacturing industry should be regulated differently from other miscellaneous organic chemical processes because their emission stream could be characterized more narrowly and standards could be tailored for these characteristics. For example, coatings manufacturing involves mixing and blending of raw materials at ambient temperatures. Emissions from these operations generally result from the displacement of materials during processing. Therefore, the proposed standards for process vents from coatings process vessels are tailored to specific condenser controls operating on saturated streams at ambient conditions. Conversely, organic chemical manufacturing involves chemical reactions and separation processes conducted at elevated temperatures. Emissions from these processes result from exothermic reactions, vessel heating, gas sparging, depressurizations, displacements, as well as other events, and emission stream characteristics vary in concentration, flowrate, and temperature. Because emission stream characteristics vary extensively in the broader source category, the compliance options are structured to accommodate a wide range of conditions. The difference in conditions and emission characteristics between the two source categories provides the basis for today's proposed NESHAP, which set MACT standards for two separate source categories in the proposed subparts FFFF and HHHHH of 40 CFR part 63.

D. What Are the Health Effects Associated With the Pollutants Emitted From Miscellaneous Organic Chemical Manufacturing and Miscellaneous Coating Manufacturing Source Categories?

Today's proposed NESHAP protect air quality and promote the public health by reducing emissions of some of the HAP listed in section 112(b)(1) of the CAA. The HAP emitted by the Miscellaneous Organic Chemical Manufacturing and Miscellaneous Coating Manufacturing source categories include but are not limited to methanol, hydrogen chloride, cresols, methylene chloride, methyl ethyl ketone (MEK), toluene, vinyl acetate, xylene, hydrogen fluoride, hexane, and methyl chloride. Exposure to these compounds has been demonstrated to cause adverse health effects.

The HAP that would be controlled with these NESHAP are associated with a variety of adverse health effects. These adverse health effects include chronic (long-term) health disorders (*e.g.,* irritation and damage to nasal membranes; damage to the liver, kidneys, and testicles) and acute health disorders (*e.g.,* irritation of eyes, throat, and mucous membranes; dizziness, headache, and nausea). Three of the HAP have been classified as probable or possible human carcinogens.

We do not have the type of current detailed data on each of the facilities covered by the Miscellaneous Organic Chemical Manufacturing and Miscellaneous Coating Manufacturing NESHAP, and the people living around the facilities, that would be necessary to conduct an analysis to determine the actual population exposures to the HAP emitted from these facilities and potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the NESHAP will reduce emissions and subsequent exposures.

Acute (short-term) or chronic (long-term) exposure of humans to methanol by inhalation or ingestion may result in blurred vision, headache, dizziness, and nausea. No information is available on the reproductive, developmental, or carcinogenic effects of methanol in humans. Birth defects have been observed in the offspring of rats and mice exposed to methanol by

inhalation. A methanol inhalation study using rhesus monkeys reported a decrease in the length of pregnancy and limited evidence of impaired learning ability in offspring. We have not classified methanol with respect to carcinogenicity.

Hydrogen chloride, also called hydrochloric acid, is corrosive to the eyes, skin, and mucous membranes. Acute inhalation exposure may cause eye, nose, and respiratory tract irritation and inflammation and pulmonary edema in humans. Dermal contact may produce severe burns, ulceration, and scarring. Chronic occupational exposure to hydrochloric acid has been reported to cause gastritis, bronchitis, and dermatitis in workers. Prolonged exposure to low concentrations may also cause dental discoloration and erosion. No information is available on the reproductive or developmental effects of hydrochloric acid in humans. In rats exposed to hydrochloric acid by inhalation, altered estrus cycles have been reported in females, and increased fetal mortality and decreased fetal weight have been reported in offspring. We have not classified hydrochloric acid for carcinogenicity.

Acute inhalation exposure by humans to mixed cresols results in respiratory tract irritation, with symptoms such as dryness, nasal constriction, and throat irritation. Cresols are also strong dermal irritants. No information is available on the chronic effects of mixed cresols in humans, but animal studies have reported effects on the blood, liver, kidney, and central nervous system, and reduced body weight from oral and inhalation exposure to mixed cresols. No information is available on the reproductive or developmental effects of mixed cresols in humans. Animal studies with oral exposure have reported developmental effects, but only at doses toxic to the mother, and no reproductive effects. Only anecdotal information is available on the carcinogenic effects of mixed cresols in humans. Several animal studies suggest that individual cresol compounds (o-cresol, m-cresol, and p-cresol) may act as tumor promoters. We have classified o-cresol, m-cresol, and p-cresol as Group C, possible human carcinogens.

Acute exposure to methylene chloride by inhalation affects the nervous system, causing decreased visual, auditory, and motor functions. These effects are reversible once exposure ceases. The effects of chronic exposure to methylene chloride suggest that the central nervous system is a potential target in both humans and animals. Limited animal studies have reported developmental effects. Human data are inconclusive regarding methylene chloride and cancer. Animal studies have shown increases in liver and lung cancer and benign mammary gland tumors following the inhalation of methylene chloride. We have classified methylene chloride as a Group B2, probable human carcinogen.

Acute inhalation exposure to MEK in humans results in irritation to the eyes, nose, and throat. Limited information is available on the chronic effects of MEK in humans. Chronic inhalation studies in animals have reported slight neurological, liver, kidney, and respiratory effects. No information is available on the developmental, reproductive, or carcinogenic effects of MEK in humans. Developmental effects, including decreased fetal weight and fetal malformations, have been reported in mice and rats exposed to MEK via inhalation and ingestion. We have classified MEK in Group D, not classifiable as to human carcinogenicity.

Acute inhalation of toluene by humans may cause effects to the central nervous system, such as fatigue, sleepiness, headache, and nausea, as well as irregular heartbeat. People who abuse toluene-based products by deliberately inhaling their vapors have shown adverse nervous system effects. Symptoms include tremors, decreased brain size, involuntary eye movements, and impaired speech, hearing, and vision. Chronic inhalation exposure of humans to lower levels of toluene also causes irritation of the upper respiratory tract, eye irritation, sore throat, nausea, dizziness, headaches, and difficulty with sleep. Studies of children of pregnant women exposed by inhalation to toluene or to mixed solvents have reported nervous system problems, facial and limb abnormalities, and delayed development. However, these effects may not be attributable to toluene alone.

Acute inhalation exposure of workers to vinyl acetate has resulted in eye and upper respiratory tract irritation. Chronic occupational exposure results in upper respiratory tract irritation, cough, and/or hoarseness. Nasal epithelial lesions and irritation and inflammation of the respiratory tract were observed in mice and rats chronically exposed by inhalation. No information is available on the reproductive, developmental, or carcinogenic effects of vinyl acetate in humans. Some limited animal data suggest reduced body weight, fetal growth retardation, and minor skeletal fetal defects at high exposure levels. An increased incidence of nasal cavity tumors has been observed in rats exposed by inhalation. We have not classified vinyl acetate for carcinogenicity.

Acute inhalation of mixed xylenes (a mixture of three closely related compounds) in humans may cause irritation of the nose and throat, nausea, vomiting, gastric irritation, mild transient eye irritation, and neurological effects. Chronic inhalation of xylenes in humans may result in nervous system effects such as headache, dizziness, fatigue, tremors, and incoordination. Other reported effects include labored breathing, heart palpitation, severe chest pain, abnormal electrocardiograms, and possible effects on the blood and kidneys.

Acute inhalation exposure to gaseous hydrogen fluoride can cause respiratory damage in humans, including severe irritation and pulmonary edema. Chronic exposure to fluoride at low levels has a beneficial effect of dental cavity prevention and may also be useful for the treatment of osteoporosis. Exposure to higher levels of fluoride through drinking water may cause dental fluorosis or mottling, while very high exposures through drinking water or air can result in skeletal fluorosis. The only developmental effect observed from fluoride exposure in humans is dental fluorosis which can occur in a child's teeth when a mother receives high levels of fluoride during pregnancy. One study reported menstrual irregularities in women occupationally exposed to fluoride. We have not classified hydrogen fluoride for carcinogenicity.

Acute inhalation exposure of humans to high levels of hexane causes mild central nervous system effects, including dizziness, giddiness, slight nausea, and headache. Chronic exposure to hexane in air causes numbness in the extremities, muscular weakness, blurred vision, headache, and fatigue. One study reported testicular damage in rats exposed to hexane through inhalation. No information is available on the carcinogenic effects of hexane in humans or animals. We have classified hexane in Group D, not classifiable as to human carcinogenicity.

Acute exposure to high concentrations of methyl chloride in humans has caused severe neurological effects including convulsions, coma, and death. Methyl chloride has also caused effects on heart rate, blood pressure, liver, and kidneys in humans. Chronic animal studies have shown liver, kidney, spleen, and central nervous system effects. No studies are available concerning developmental or reproductive effects of methyl chloride in humans. Inhalation studies have demonstrated that methyl chloride

causes reproductive effects in male rats, with effects including testicular lesions and decreased sperm production. Human cancer data are limited. Animal studies have noted kidney tumors in male mice. We have classified methyl chloride as a Group C, possible human carcinogen.

II. Summary of the Proposed NESHAP

A. What Source Categories and Subcategories Are Affected by These Proposed NESHAP?

As noted in section I.C of this preamble, we are creating two new source categories from the combination of several existing source categories. These two source categories, which are affected by today's proposed NESHAP, are called the ''Miscellaneous Organic Chemical Manufacturing'' source category and the ''Miscellaneous Coating Manufacturing'' source category. There are no subcategories.

B. What Are the Primary Sources of Emissions and What Are the Emissions?

The sources of emissions at both source categories are process vents, storage tanks, equipment leaks, transfer operations, and wastewater systems. Total baseline HAP emissions (*i.e.,* the current level of control) for the Miscellaneous Organic Chemical Manufacturing source category are estimated to be on the order of 44,700 Mg/yr (49,300 tons/yr). Emissions from equipment leaks account for the largest fraction of emissions, or approximately 46 percent of the total. Emissions from process vents and wastewater systems account for approximately 25 percent and 28 percent of the total, respectively. Emissions from storage tanks and transfer operations account for less than 1 percent of the total.

Total baseline HAP emissions for the Miscellaneous Coating Manufacturing source category are estimated to be 7,780 Mg/yr (8,580 tons/yr). Emissions from mixing vessels and equipment leaks make up nearly 86 percent and 13 percent of the total, respectively; less than 1 percent of the emissions are from wastewater, transfer operations, and storage tanks.

C. What Is the Affected Source?

The affected source for the Miscellaneous Organic Chemical Manufacturing source category is the facilitywide collection of miscellaneous organic chemical manufacturing process units (MCPU), wastewater treatment and conveyance systems, transfer operations and associated ancillary equipment such as heat exchange systems. The MCPU includes equipment necessary to operate a process, equipment components, and associated storage tanks.

The affected source for the Miscellaneous Coating Manufacturing source category is the miscellaneous coating manufacturing operations at the facility. These operations include storage tanks, process vessels, equipment components, wastewater treatment and conveyance systems, transfer operations, and ancillary sources such as heat exchange systems.

D. What Are the Emission Limitations, Operating Limitations and Other Standards?

The proposed emission limitations and work practice standards are in Tables 1 through 8 of the proposed subpart FFFF and Tables 1 through 7 of the proposed subpart HHHHH and are summarized below.

1. Miscellaneous Organic Chemical Manufacturing Source Category

We are proposing separate standards for batch and continuous process vents. For batch process vents, the proposed standards would require you to reduce uncontrolled HAP emissions from the sum of all batch process vents within the process by 98 percent if uncontrolled emissions exceed 4,540 kilograms per year (kg/yr) (10,000 pounds per year (lb/yr)). No control of vents would be required for processes that are limited to uncontrolled emissions of 4,540 kg/yr (10,000 lb/yr), as calculated on a rolling 365-day basis. A second control option that we are proposing today for batch vents is to reduce the sum of all batch process vents within the process by 95 percent using recovery devices. You may also comply with the alternative standard, which requires you to achieve specified outlet concentrations for total organic compounds (TOC) and total hydrogen halides and halogens on a continuous basis. Both emission limits are 20 parts per million by volume (ppmv) for combustion devices, and 50 ppmv for noncombustion devices. We defined the term ''process'' to include all equipment which collectively functions to produce a material or family of materials that are covered by the source category.

For continuous process vents, the proposed standards would require control of vents determined to have a total resource effectiveness (TRE) index equal to or less than 2.6. The proposed standards would require you to reduce HAP emissions by at least 98 percent by weight if the TRE of the outlet gaseous stream after the last recovery device is above 2.6, or to reduce the outlet TOC concentration to 20 ppmv or less. For continuous process vents, we reference the process vent standards contained in 40 CFR part 63, subpart SS.

For both continuous and batch process vents, we are proposing to allow you to comply by combusting streams in hazardous waste incinerators that comply with the requirements of the Resource Conservation and Recovery Act (RCRA) or in boilers, flares, or process heaters that meet certain design and operating requirements. Additionally, you must also achieve less than 20 ppmv halogen or hydrogen halide concentration if you demonstrate compliance with the 20 ppmv TOC alternative standard or the 20 ppmv TOC concentration limit standards.

The proposed new source standards for batch and continuous process vents follow the same formats as described above. However, the applicability triggers are more stringent. All batch vents within a process for which the uncontrolled emissions from batch vents exceed 1,360 kg/yr (3,000 lb/yr) must be reduced by either 98 percent using a control device or 95 percent using a recovery device. All continuous process vents with a TRE of less than or equal to 5.0 must be controlled by 98 percent. The same options for control using hazardous waste incinerators, other combustion devices, and the alternative and concentration standards are also available for new sources.

We are proposing storage tank standards that would require existing sources to control emissions from storage tanks having capacities greater than or equal to 38 cubic meters (m^3) (10,000 gallons (gal)) and storing material with a HAP partial pressure of greater than 6.9 kilopascals (kPa) (1.0 pound per square inch absolute (psia)). For new sources, the proposed standards would require control of storage tanks having capacities greater than or equal to 38 m^3 (10,000 gal) and storing material with a HAP partial pressure of greater than 0.7 kPa (0.1 psia). For both existing and new sources, the required control would be to use a floating roof or to reduce the organic HAP emissions by 95 percent by weight or more.

The proposed standards for wastewater, transfer operations, maintenance wastewater, and heat exchange systems are identical to those required under the HON. At existing sources, control would be required for wastewater streams with HAP listed on Table 9 of 40 CFR part 63, subpart G (Table 9 HAP), if the concentration exceeds 1,000 parts per million by weight (ppmw) and the flow exceeds 10 liters per minute (lpm), or if the concentration of Table 9 HAP exceeds

10,000 ppmw at any flowrate. The proposed control requirements are to convey the wastewater streams through controlled sewers using vapor suppression techniques to treatment where the Table 9 HAP are removed or destroyed, thereby reducing Table 9 HAP emissions. At new sources, the proposed conveyance and control requirements are identical to those for existing sources, but the applicability triggers on individual streams are more stringent. In addition to controlling streams that meet the thresholds for existing sources, control would also be required for streams containing HAP listed on Table 8 of 40 CFR part 63, subpart G (Table 8 HAP), if the concentration exceeds 10 ppmw and the wastewater stream flowrate is greater than 0.02 lpm.

For transfer operations, we are proposing to require the HON level of control for transfer racks that load greater than 0.65 million liters per year (l/yr) (0.17 million gallons per year (gal/yr)) of liquid products that contain organic HAP with a partial pressure of 10.3 kPa (1.5 psia). Each transfer rack that meets these thresholds would be required to be controlled to reduce emissions of total organic HAP by 98 percent by weight or more, or to have displaced vapors returned to the process or originating container. For sources such as maintenance wastewater and heat exchanger systems, we are proposing to require a plan for minimizing emissions and a monthly leak detection program, respectively, as was done in the HON.

For equipment leaks, we are proposing to require implementation of the leak detection and repair (LDAR) program that is contained in 40 CFR part 63, subpart UU. This LDAR program is also identical to the program in the proposed Consolidated Air Rule (63 FR 57748, October 28, 1998). This LDAR program achieves the same reductions as the HON LDAR program, but contains options for more directed monitoring of components that have been identified to leak, thereby reducing the monitoring burden relative to that of the HON LDAR program.

The proposed subpart FFFF also includes a pollution-prevention alternative for existing sources that meets the control level of the MACT floor and that you may implement in lieu of the emission limitations and work practice standards described above. The pollution-prevention alternative provides a way for facilities to comply with MACT by reducing overall consumption of HAP in their processes; therefore, it is not applicable for HAP that are generated in the process. Specifically, you must demonstrate that the production-indexed consumption of HAP has decreased by at least 65 percent from a 3-year average baseline set no earlier than the 1994 through 1996 calendar years. The production-indexed consumption factor is expressed as the mass of HAP consumed divided by the mass of product produced. The numerator in the factor is the total consumption of the HAP, which describes all the different areas where it can be consumed, either through losses to the environment, consumption in the process as a reactant, or otherwise destroyed.

Cleaning is considered part of the miscellaneous organic chemical manufacturing process. Therefore, cleaning fluids are considered to be process fluids, and you would be subject to the same process vent, storage tank, equipment leak, and wastewater provisions when using cleaning fluids as when using other process fluids.

2. Miscellaneous Coating Manufacturing Source Category

The proposed standards for coating manufacturing cover vents from process vessels, storage tanks, wastewater, transfer operations, equipment leaks, and ancillary heat exchange operations.

The proposed standards require both stationary and portable process vessels with capacities greater than or equal to 0.94 m^3 (250 gal) to be equipped with covers. Additionally, organic HAP emissions from stationary vessels at existing sources are required to be reduced by at least 75 percent by weight from an uncontrolled baseline, in addition to the requirement for covers. Stationary and portable vessels at new sources would be required to be equipped with covers and to reduce organic HAP emissions by at least 95 percent by weight. Alternatively, for both new and existing sources, you may use a condenser operated at specified temperature limits.

The proposed standards for affected storage tanks at both existing and new sources would require either organic HAP emissions reductions of 90 percent by weight or more, or the use of floating roofs or vapor balancing. For existing sources, affected storage tanks are those that have capacities greater than or equal to 75 m^3 (20,000 gal) and store material with a vapor pressure of 13.1 kPa (1.9 psia). For new sources, affected storage tanks are those with capacities equal to or greater than 75 m^3 (20,000 gal) but less than 94 m^3 (25,000 gal) and storing material that has a vapor pressure of 10.3 kPa (1.5 psia) or greater, and tanks with capacities greater than 94 m^3 (25,000 gal) storing material that has a vapor pressure of 0.7 kPa (0.1 psia).

For wastewater at existing sources, the proposed NESHAP would require that wastewater containing a total organic Table 9 HAP (40 CFR part 63, subpart G) concentration of 4,000 ppmw or greater be conveyed in controlled sewers and treated to remove or destroy organic HAP. The compliance procedures cross referenced from part 63 allow for offsite control of wastewaters provided the offsite source submit to EPA written certification that the transferee will manage and treat any affected wastewater or residual in accordance with the requirements of the proposed NESHAP. For new sources, the applicability triggers for control would be more stringent, affecting all streams with Table 9 HAP concentrations greater than or equal to 2,000 ppmw.

We also note that the definition of wastewater for the Miscellaneous Coating Manufacturing source category (proposed subpart HHHHH) differs from the definition of wastewater for proposed subpart FFFF. This definition includes HAP-containing water, raw material, intermediate, product, by-product, co-product, or waste material that exits equipment in a process. This definition is being proposed to capture waste solvent that may be generated in a process and sent to a recovery operation. In these cases, the material exiting the process equipment would be considered an affected wastewater stream if it met the HAP concentration limits and therefore would be required to be managed as such. We think that the wastewater standards are appropriate for these streams considering that their characteristics reflect wastes sent offsite for destruction.

Proposed standards for transfer operations would require 75 percent control of HAP emissions from product loading to tank trucks and railcars if the amount of material transferred contains at least 11.4 million l/yr (3.0 million gal/yr) of HAP, and the material has a HAP partial pressure greater than or equal to 10.3 kPa (1.5 psia). Acceptable control strategies also include routing displaced vapors back to the process, or the use of condensers operated below specified temperature limits.

As with the standards for miscellaneous organic chemical manufacturing, we are proposing to require the LDAR program contained in 40 CFR part 63, subpart UU for control of equipment leaks. For maintenance wastewater and heat exchanger systems, we are proposing to require a plan for

minimizing emissions and a monthly leak detection program, respectively, as was done in the HON.

Cleaning operations are considered part of the miscellaneous coating manufacturing operations (like mixing). Therefore, cleaning fluids are considered to be process fluids, and the requirements for process vessels, storage tanks, equipment leaks, and wastewater systems that apply to other process operations also apply to cleaning operations.

E. What Are the Testing and Initial Compliance Requirements?

1. Process Vents

The proposed subpart FFFF would require calculation of uncontrolled emissions as a first step in demonstrating compliance with the 98 percent or 95 percent reduction requirement for batch process vents. If you choose to control vents using the alternative standard or using specified combustion devices, this initial calculation of uncontrolled emissions is not required. For continuous process vents, the proposed subpart FFFF would require calculation of the TRE index values using the procedures contained in the HON for continuous process vents.

For stationary process vessels in the Miscellaneous Coating Manufacturing source category, you have the option of achieving a specified condenser exit gas temperature (based on vapor pressure) in lieu of calculating uncontrolled emissions as the first step in demonstrating the 75 percent reduction for existing sources or 95 percent reduction for new and reconstructed sources.

To verify that the required reductions have been achieved, you must either test or use calculation methodologies, depending on the emission stream characteristics, control device, and the type of process vent. Initial compliance demonstration provisions for batch vents in Miscellaneous Organic Chemical Manufacturing sources and stationary process vessels at Miscellaneous Coating Manufacturing sources reference the Pharmaceuticals Production NESHAP (40 CFR part 63, subpart GGG). Therefore, process vents control devices handling greater than 9.1 Mg/yr (10 tons/yr) of HAP must be tested, while engineering assessments are allowed for control devices with lower loads and for condensers. Performance test provisions in both source categories consider worst-case emissions for devices controlling process vents.

For each continuous process vent with a TRE less than or equal to 2.6, compliance with the percent reduction emission limitation must be verified through measurement (testing).

2. Storage Tanks, Transfer Operations, and Wastewater

For demonstrating compliance with various requirements, the proposed NESHAP allow you to either conduct performance tests or document compliance using engineering calculations. The initial compliance demonstration procedures reference 40 CFR part 63, subpart SS, for storage tanks complying using control devices and transfer operations, subpart WW for storage tanks complying using floating roofs, and subpart G for wastewater sources.

3. Equipment Leaks

To document compliance with the LDAR provisions, the proposed NESHAP require you to demonstrate that an LDAR program meeting the requirements of the Generic MACT in subpart UU of 40 CFR part 63 is in use.

F. What Are Continuous Compliance Provisions?

The proposed NESHAP require monitoring to determine whether you are in compliance with emission limitations on an ongoing basis. This monitoring is done either by continuously measuring HAP emissions reductions or by continuously measuring a site-specific operational parameter, the value of which you would establish during the initial compliance demonstration. The operating parameter is defined as the minimum or maximum value established for a control device or process parameter that, if achieved on a daily basis by itself or in combination with one or more other operating parameter values, determines whether you are complying with the applicable emission limits. These parameters are required to be monitored at 15-minute intervals throughout the operation of the control device.

Continuous, or 15-minute monitoring, is not required for all sources. For emission sources not equipped with control devices or falling below applicability trigger levels, such as the 4,540 kg/yr (10,000 lb/yr) emission limit for the sum of batch vents within a process below which no control is required, you must monitor the number of batches to demonstrate that you continuously fall below the yearly emission limit. For control devices that do not control more than 1 ton per year of HAP emissions, only a daily verification of the operating parameter is required, as is provided in the Pharmaceuticals Production NESHAP. To demonstrate compliance with work practice standards, such as the requirement to maintain floating roofs, inspection of equipment serves as the monitoring demonstration and is required only on a periodic (yearly) basis.

G. What Are the Notification, Recordkeeping, and Reporting Requirements?

If you are subject to the proposed NESHAP, you would be required to fulfill all reporting requirements outlined in the General Provisions to part 63 (40 CFR part 63, subpart A). The sections of subpart A that apply to the proposed NESHAP are designated in Table 21 of the proposed subpart FFFF and Table 19 of the proposed subpart HHHHH. In addition, we have included recordkeeping and reporting requirements that are specific to these proposed NESHAP. For example, you are required to submit a precompliance report if you choose to comply using an alternative monitoring approach, use an engineering assessment to demonstrate compliance, or comply using a control device handling less than 1 ton per year of HAP emissions. Other notifications that are required by other MACT standards, such as the Initial Notification and the Notification of Compliance Status (NOCS), are also required by these proposed NESHAP and are identified in § 63.2540 of the proposed subpart FFFF and § 63.8070 of the proposed subpart HHHHH.

The Initial Notification is required within 120 days of the effective date of the NESHAP. The report, which is very brief, serves to alert appropriate agencies (State agencies and EPA Regional Offices) of the existence of your affected source and puts them on notice for future compliance actions. The NOCS, which is due on the compliance date of the NESHAP, is a comprehensive report that describes the affected source and the strategy being used to comply. The NOCS is also an important aspect of the title V permitting strategy for sources subject to subpart FFFF, which is discussed in section II.H of this preamble.

H. How Will the Proposed Subpart FFFF Be Incorporated Into Title V Permits?

Title V requires operating permits to assure compliance with all applicable requirements at a source, including the proposed subpart FFFF where it applies. Most existing sources that will become subject to the proposed subpart FFFF upon promulgation will already be

operating under title V operating permits (*e.g.,* because they are major sources of HAP or because they are subject to some other section 112 standard).

Under section 502(b)(9) of the CAA, if a Federal standard like the proposed subpart FFFF is promulgated when 3 or more years remain on a major source's title V permit term, the permit will need to be reopened in order to assure compliance with the proposed subpart FFFF. Such a reopening must be completed not later than 18 months after promulgation of the proposed subpart FFFF (40 CFR 70.7(f)(1)(i)).

If fewer than 3 years remain on a title V permit term, a permitting authority's program may reflect the option not to require revisions to the permit to incorporate the NESHAP. Subpart FFFF would be added to the source's title V permit at the next permit renewal, but of course in the meantime, the source must fully comply with the proposed subpart FFFF outside the title V permit. The CAA permits State programs to require revisions to the permit to incorporate the NESHAP when fewer than 3 years remain on a major source's permit term, however, so any sources with fewer than 3 years remaining on their permits upon the promulgation of the proposed subpart FFFF, should consult their State permitting program regulations to determine whether revision to their permits is necessary to incorporate the NESHAP.

The Miscellaneous Organic Chemical Manufacturing source category is similar to the Pharmaceuticals Production source category in that both use nondedicated, multipurpose equipment that may be configured in numerous ways to accommodate different batch processes. In addition, both the proposed subpart FFFF and the Pharmaceuticals Production NESHAP (40 CFR part 63, subpart GGG) have process-based emission limitations for batch processes. Therefore, when a permitting authority incorporates the proposed subpart FFFF into a title V permit, the miscellaneous organic chemical manufacturing sources, like pharmaceuticals production sources, may wish to consider requesting that the permit set forth terms and conditions for reasonably anticipated operating scenarios. The part 70 regulations provide for this opportunity to allow sources to account for operating scenarios that the source owner or operator reasonably anticipates over the course of the permit term, without need for permit revisions (40 CFR 70.6(a)(9)). The permit would require the source, contemporaneously with making a change from one operating scenario to another, to record in an operating log at the facility a record of the current scenario under which the source is operating. By minimizing the need to reopen the permit, the part 70 alternative operating scenarios may be a particularly useful permit strategy.

III. Rationale for Selecting Proposed Emission Limitations and Work Practice Standards

A. How Did We Select the Source Categories?

As noted in section I.C of this preamble, we are creating two new source categories from the combination of existing source categories. These two source categories are Miscellaneous Organic Chemicals Manufacturing and Miscellaneous Coating Manufacturing.

The Miscellaneous Organic Chemicals Manufacturing source category will cover emission sources from 22 previously listed source categories, as well as some emission sources that are not specifically covered by other MACT standards. For example, the HON does not regulate emissions from batch process vents. Therefore, the Miscellaneous Organic Chemicals Manufacturing source category will cover these emission sources. In specifying SIC codes, we also include SIC code 283 to include the production of any materials not already covered by the Pharmaceuticals Production NESHAP.

In the proposed subpart FFFF, we specifically exempt by-product ammonium sulfate manufacturing facilities at caprolactum plants and their respective operations provided that the ammonium sulfate slurry entering the ammonium sulfate manufacturing operation is documented to contain 50 ppmw or less HAP and 10 ppmw or less benzene. We are providing this exemption because these streams are considered treated wastewater, and the ammonium sulfate production is an inorganic chemical manufacturing process.

We also reviewed information submitted by the explosives manufacturing industry that requested us to develop a separate subcategory for explosives manufacturers. The industry group indicated that the proposed control requirements for batch process vents could place severe and unsafe restrictions on explosives and propellant manufacturing sources because existing control technologies, especially those technologies that can achieve 98 percent control, are unsafe. Because the possibility exists that vents from these processes may contain residual explosive materials, the industry contends that thermal destruction technology cannot safely treat these emission streams. The industry has indicated that process condensers are used to recover HAP solvents in production processes and therefore condensation may be a viable control technology for many sources. We recognize that incineration is not a viable control option. Therefore, we have decided to solicit comments on whether process vents generated in the production of explosives, commonly referred to as ''energetics,'' should be treated as a separate class of emission streams subject to a lesser degree of control corresponding to that achievable using condensers (or other controls). We are also soliciting comments on whether the condenser outlet gas temperature defaults that are being proposed for coatings manufacturing would be appropriate for this industry, and we are soliciting comments on what the definition of ''energetics'' should be. Note that this discussion does not extend to other emission sources in the explosives industry, such as storage tanks, wastewater, transfer operations, and equipment leaks. These emission points will be regulated in the same manner as for other processes in the Miscellaneous Organic Chemicals Manufacturing source category.

The Miscellaneous Coating Manufacturing source category is much narrower in applicability than the Miscellaneous Organic Chemicals Manufacturing source category. Process emission sources are vessels used to mix and transfer materials used to make coatings. Coatings include paints, inks, adhesives, and sealants and are generally described under SIC codes 285 and 289, although the NESHAP also apply to the manufacture of any coatings that do not fall under these SIC codes. However, other operations within the SIC Code 285 (SIC 2851 (NAICS 32551)—paints, varnishes, lacquers, enamels, and allied products) and SIC Code 289 (SIC 2891 (NAICS 32552)—adhesives and sealants) that involve chemical reactions are covered by the Miscellaneous Organic Chemical Manufacturing source category; for example, the manufacture of a latex resin in a chemical reaction prior to its use as a raw material to manufacture a paint would be covered by the Miscellaneous Organic Chemical Manufacturing standards.

B. How Did We Select the Affected Source?

Most industrial plants consist of numerous pieces or groups of equipment that emit HAP and that may be viewed as emission ''sources.''

Therefore, we use the term ''affected source'' to designate equipment within a particular kind of plant chosen as the ''source'' covered by the proposed NESHAP. For today's proposed Miscellaneous Organic Chemical Manufacturing NESHAP, we are defining the affected source as the collection of MCPU and associated equipment, such as heat exchange systems, wastewater conveyance and treatment systems, and transfer operations within a plant site that is a major source. The MCPU definition within the affected source definition also includes specific emission sources that are exempt from other MACT standards, such as batch vents from the HON chemical manufacturing process units.

We are proposing to define the affected source for the Miscellaneous Coating Manufacturing source category as the miscellaneous coating manufacturing operations, or the collection of equipment necessary to formulate coatings, including inks, paints, sealants, and adhesives at a plant site that is a major source. The affected source includes equipment such as heat exchange systems, wastewater conveyance and treatment systems, and transfer operations.

Within each affected source, we identified the following five types of HAP emission points: process vents, storage tanks, transfer operations, equipment leaks, and wastewater.

C. How Did We Determine the Basis and Level of the Proposed Standards for Existing and New Sources?

According to the CAA, the MACT floor for existing sources is defined as ''the average emission limitation achieved by the best performing 12 percent of sources (for which the Administrator has emissions information).'' We interpreted the term ''average'' in 59 FR 29196 as a measure of the ''central tendency of a data set.'' The central tendency may be represented by the arithmetic mean, median, or some other measure that is reasonable. The MACT floors for the proposed NESHAP are based on the central tendency for each emission source type, using available data. In some cases, we use the arithmetic mean to identify the floor control level and in other cases, we use the median. Generally, we prefer to use the arithmetic mean if sufficient data points exist and if the resulting performance level corresponds to an available control technology. However, if data are insufficient to determine an arithmetic mean or if the result does not yield a performance level that corresponds to an available control technology, we use the median.

1. How Did We Determine the MACT Floors for the Miscellaneous Organic Chemicals Manufacturing Source Category?

The MACT floors for the Miscellaneous Organic Chemicals Manufacturing source category were developed using data that were collected from facilities during 1997 and from existing available data located in EPA and State databases. Clean Air Act section 114 information collection requests (ICR) were sent to 194 facilities in the spring of 1997. The facilities which received the ICR were identified from EPA's 1993 toxic release inventory (TRI) database which included information on facilities in SIC codes 282, 284, 286, 287, 289, or 386. Information on continuous processes came from emissions and permit databases from the following States: Texas, Louisiana, North Carolina, Illinois, Missouri, California, and New Jersey. Components of the MACT floor were calculated separately for process vents, storage tanks, wastewater, transfer operations, and equipment leaks consistent with the ''plank'' methodology developed in the HON (57 FR 62627, December 31, 1992) and are discussed below.

a. *Process Vents.* For process vents, we reviewed information on both batch process vents and continuous process vents. To be consistent with formats in previous MACT standards, we grouped data for batch vents according to all vents within a process. The floor for batch vents was determined for the process, similar to the Pharmaceuticals Production NESHAP. For continuous process vents, we evaluated data on a single vent-by-vent basis, as was done in the HON. We chose the Pharmaceuticals Production NESHAP as the model for the format of the batch vent standard in the proposed subpart FFFF because it works well for multipurpose equipment, fits well into the definition of operating scenario, and works best for pollution prevention. For continuous vents, we modeled the standard formats on the HON because the continuous vents in this source category are not expected to differ significantly in characteristics from those covered by the HON, and other regulations such as the new source performance standards (NSPS) in 40 CFR part 60, subparts NNN, III, RRR, and DDD, which all require control based on characterization using a TRE index on individual process vents.

To evaluate the MACT floor for batch process vents, we started with the database generated from responses to the 1997 ICR. We summed batch vents to calculate the mass of emissions, on an uncontrolled basis, for each process as reported in the ICR responses. We then sorted the processes based on control efficiency and uncontrolled HAP emissions, ranking all processes controlled in order of increasing uncontrolled emissions. The practical limit for control efficiency that would be achievable by devices in this industry is 98 percent. Since greater than 12 percent of processes were controlled to 98 percent, processes with the lowest uncontrolled emissions are best performing. The resulting database contained 731 processes at 144 facilities. The number of processes making up the best 12 percent was 88. We determined that the median performance level represented the central tendency of the top processes since HAP emission values for the top performing facilities represented a skewed distribution over a large range. The median process had 4,480 kg/yr (9,860 lb/yr) of uncontrolled HAP emissions. Based on this process, the MACT floor was set at 98 percent for processes with uncontrolled emissions of 4,540 kg/yr (10,000 lb/yr).

For the new source MACT floor for batch process vents, we identified the batch process representing the best controlled similar source to have uncontrolled HAP emissions of approximately 1,360 kg/yr (3,000 lb/yr). It is controlled with a thermal incinerator. Therefore, we selected the new source MACT floor to be 98 percent control for all processes with uncontrolled HAP emissions greater than or equal to 1,360 kg/yr (3,000 lb/yr).

The MACT floor for continuous process vents was determined in a manner similar to what was done in the development of the HON. We used TRE values for individual process vents as a measure of the level of control. The TRE calculation uses inputs such as stream flow rate and HAP concentration to produce an index value. Streams have high TRE values primarily because of low HAP concentration. As a starting point, we used existing data that had been collected from State agency permit files. This database includes 240 vent streams from 61 processes for which TRE values could be calculated. We calculated TRE values using information on the stream characteristics including flowrate, volatile organic compounds (VOC) content, and HAP content. We then identified all streams that were controlled to 98 percent or better. From the TRE values and the control efficiencies, we identified a threshold TRE value for each facility below which

all streams were controlled. Facilities with the highest TRE threshold values are considered the best performing facilities. There are 44 facilities in the floor analysis, but only 17 with thresholds (the remainder of the facilities did not control their stream with the lowest TRE). Since TRE values for the top performing facilities represent an even distribution over a limited value range, it was determined that the average TRE value best represented the central tendency. The average TRE threshold for the top 12 percent of the facilities is 2.6. Therefore, the MACT floor at existing sources is 98 percent control for all continuous process vents with a TRE less than or equal to 2.6. The TRE threshold for each facility was also used to determine the best performing facility. That facility is controlling all continuous process vents with a TRE of 5.0 or less at a level of 98 percent. Therefore, this is the MACT floor for new sources.

b. *Storage Tanks.* In developing the MACT floor for storage tanks, we again used the CAA section 114 information database. Approximately 16 percent of storage tanks are reported to be equipped with a floating roof or a control device achieving a HAP reduction efficiency of 95 percent or more. As recognized in several NESHAP and NSPS, floating roofs are equivalent to 95 percent control. To determine the appropriate vapor pressure threshold for the MACT floor level of performance, we identified a partial pressure threshold at each facility above which all tanks with a capacity greater than or equal to 38 m^3 (10,000 gal) at the facility were controlled to the MACT floor level. The top 12 percent of the 128 facilities in the tanks database correspond to the top 14 facilities. The average threshold value for the top 12 percent of facilities is a HAP partial pressure of 1 psia (rounded up from 0.88 psia). The average, rather than the median, was chosen because the average value best represented the different HAP stored, and thus represented the central tendency of the data set.

The new source MACT floor for storage tanks was determined to be floating roof technology or 95 percent control since this level of control represents the best level of control in the source category. As with the existing source MACT floor, applicability cutoffs for the new source MACT floor are established based on the smallest tanks storing material with the lowest partial pressures since the emission potential of tanks generally decreases with capacity and vapor pressure of stored material. Therefore, the facility controlling the smallest tanks with the lowest vapor pressure materials in the source category represents the best controlled source. The MACT floor for new sources consists of floating roof technology or 95 percent control of all tanks with a capacity greater than or equal to 38 m^3 that store material with a HAP partial pressure of 0.1 psia, based on the facility that applied controls to all tanks storing materials with a vapor pressure at or above 0.087 psia (rounded to 0.1 psia).

c. *Wastewater.* For wastewater streams, we also set the MACT floor using data collected from the industry. After excluding all but Table 9 HAP, the database contains 363 streams at 60 facilities that have Table 9 HAP concentrations of at least 1,000 ppmw. A total of 184 of these streams at 44 facilities meet the HON cutoffs (i.e., streams of any flowrate that contain at least 10,000 ppmw of Table 9 HAP compounds, and streams with a flowrate of at least 10 lpm that contain at least 1,000 ppmw of Table 9 HAP compounds). Because more than 12 percent of the streams that meet the cutoff are controlled to the level of the HON, we therefore concluded that the MACT floor consists of the HON level of control and the HON cutoffs.

In establishing the new source MACT floor for wastewater, we concluded that the HON new source MACT floor also applies to the Miscellaneous Organic Chemical Manufacturing source category. It is not possible to identify at least one stream in the database that meets HON new source applicability levels of 0.02 lpm and 10 ppmw Table 8 HAP because we did not ask for data on wastewater streams with less than 1,000 ppmw Table 9 HAP. However, based on our knowledge of the miscellaneous organic chemical manufacturing industry, we have concluded that the wastewater conveyance and treatment systems used to convey and control HON-affected wastewaters also convey and control affected wastewaters in this source category; therefore, a floor exists based on the colocation of HON and miscellaneous organic chemical manufacturing affected sources. The new source floor should be no less stringent than the MACT level of control for new HON sources. This is also the most stringent requirement contained in any other NESHAP, including the Benzene Waste Operations NESHAP (40 CFR part 61, subpart FF), and we would expect that a similar colocation argument could be made regarding overlap of these requirements for wastewater conveyance and control with affected miscellaneous organic chemical manufacturing sources. The colocation rationale for both wastewater new source MACT floor and the MACT floors for existing and new source transfer operations is further discussed in the next section.

d. *Transfer Operations.* Standards for loading operations regulate the transfer of materials containing HAP. Although the products of miscellaneous organic chemical manufacturing sources are not expected to contain HAP, generally, it is possible that products will be transferred in solutions of HAP. Therefore, there is a need to establish requirements for loading operations for the source category. In our data gathering effort, we did not collect information on transfer operations. Therefore, we established the floors and regulatory alternatives based on existing available data.

We decided to base the transfer requirements for the proposed NESHAP on the transfer requirements contained in the HON. The rationale for this decision is based on the fact that the Miscellaneous Organic Chemicals Manufacturing source category is closely related to the HON source category in equipment, emission sources, and operations; and we believe a floor exists from colocation of miscellaneous organic chemical manufacturing sources at HON facilities. Many facilities with HON applicability also contain processes which will be regulated by the Miscellaneous Organic Chemical Manufacturing NESHAP. Additionally, there are circumstances where applicability to these proposed standards will overlap with the HON; for example, the Miscellaneous Organic Chemical Manufacturing NESHAP will cover vents from batch unit operations that are part of HON chemical manufacturing process units (CMPU), therefore products from HON and miscellaneous organic chemical manufacturing sources may be loaded at the same rack.

Based on a review of facilities in Texas and Louisiana, we found that approximately 60 percent of facilities containing processes subject to the Miscellaneous Organic Chemical Manufacturing NESHAP also contain processes subject to the HON. Assuming that these States are representative and that the colocation assumption is valid, then the MACT floor for transfer operations is based on the requirements of the HON, which is 98 percent control for loading racks with a throughput greater than or equal to 0.65 million liters per year (0.17 million gallons per year) at a rack-weighted HAP partial pressure greater than or equal to 10.3 kPa (1.5 psia). In selecting this floor, we also stress that the selection of the same

requirements will streamline the compliance process for those colocated MON processes since only one set of requirements will apply for transfer operations.

e. *Equipment Leaks.* The MACT floor level of performance for equipment leaks is an LDAR program for equipment components. We estimate that the HON LDAR program will reduce HAP emissions by 63 to 75 percent for continuous chemical processes and 70 to 73 percent for batch chemical processes. We determined that several LDAR programs implemented by Texas and Louisiana are roughly equivalent to the HON LDAR program when applied to continuous chemical processes.

Approximately 33 percent of facilities with continuous and batch chemical processes were reported to implement some type of structured LDAR program for equipment components. The top performing 12 percent of facilities were determined by rank ordering all facilities by the LDAR program and overall effectiveness in descending order. The top 12 percent of the 229 facilities in the database correspond to 28 facilities. We found that 30 facilities implement an LDAR program that reduces emissions equivalent to the HON program. Therefore, we set the floor at the HON LDAR program.

Because we wanted to maintain consistency with other Federal rules, we are referencing the requirements of 40 CFR part 63, subpart UU. Implementing subpart UU achieves the same level of control as implementing the HON subpart H program. However, the subpart UU program significantly reduces the burden associated with monitoring valves and connectors without increasing emissions.

2. How Did We Determine the MACT Floors for the Miscellaneous Coating Manufacturing Source Category?

a. *Process Vessels.* In developing the MACT floor for this source category, we made a distinction between portable and stationary process tanks. This distinction was made because of the feasibility of controlling each type of vessel and observed industry practices with respect to each type of vessel. Stationary tanks tend to be larger in capacity and are more easily adaptable to add-on control devices. In contrast, portable tanks do not lend themselves to add-on control as easily.

The MACT floor level of performance for portable process vessels is the emission reduction achieved by the use of a fixed or removable cover. Based on industry survey results, approximately 92 percent of portable vessels (2,783 vessels) are equipped with covers, but only 3 percent of portable vessels are reportedly equipped with any type of control device. Therefore, the MACT floor was determined to be covers only. For stationary vessels, we determined the MACT floor to be the emission reduction achieved by the use of a fixed or removable cover that vents to a control device. As with portable tanks, most (approximately 98 percent) of the stationary process vessels are equipped with a cover. Another 8 percent of these vessels were also reported to be controlled with an add-on device. The top 12 percent of 4,628 stationary vessels correspond to 555 tanks. Of these, 368 vessels were reported to be equipped with both a cover and an add-on control device. The average control efficiency of these control devices is 60 percent (rounded up from 57 percent). During the data analysis, we determined that the average performance level did represent the central tendency of the top facilities, as control device efficiencies represented a fairly even distribution. Therefore, we set the MACT floor for stationary vessels to be 60 percent control, as achieved by a cover and closed vent to a control device achieving 60 percent control.

b. *Storage Tanks.* According to the ICR survey data, only 18 of the 453 storage tanks in the database were equipped with control devices. Therefore, because we did not identify any means by which sources are currently reducing emissions that is sufficiently widespread to constitute a MACT floor, we are not establishing a MACT floor for storage tanks at existing sources in the Miscellaneous Coating Manufacturing source category.

For new sources, the MACT floor consists of 90 percent control for storage tanks with a capacity ≥94 m^3 (≥25,000 gal) that store a material with a HAP partial pressure ≥0.7 kPa (≥0.1 psia) and 90 percent control for tanks with a capacity <75 m^3 (<20,000 gal) and <94 m^3 (<25,000 gal) that store material with a HAP partial pressure ≥10.3 kPa (≥1.5 psia). Applicability cutoffs are established based on the smallest tanks storing material with the lowest partial pressures. This floor is based on the practices of one facility that has a 94 m^3 (25,000 gal) tank storing 100 percent xylene, which has a partial pressure of 0.76 kPa (0.11 psia), and a 20,000 gal tank storing 100 percent methyl ethyl ketone, which has a partial pressure of 10.3 kPa (1.5 psia) (assuming a temperature of 20°C for both tanks). These tanks are the best performing tanks because they are all controlled to the best level of control in the source category (i.e., 90 percent).

c. *Wastewater.* In selecting MACT for wastewater, we did not follow the same convention as previous analyses for other NESHAP that assumed that the total quantity of generated wastewater, in addition to HAP concentration, would determine treatment options. The use of both flowrate and concentration to identify streams for control is based on the assumption that the cost and effectiveness of controls depend on both the concentration of HAP in the wastewater and the quantity of wastewater generated. This is a reasonable assumption for facilities that treat wastes on site, such as facilities that steam strip wastewater onsite. However, for small quantity generators such as the coating manufacturing facilities, the need for treatment is driven by the characteristics of the wastewater, not the flow rate. If they cannot discharge to a publicly owned treatment works because of their wastewater characteristics, they typically drum their wastewater and send it offsite for treatment. As a result, the unit cost of treatment (i.e., dollars per megagram of HAP reduced) is directly related to the characteristics of the wastewater (e.g., the HAP concentration), not the flow rate.

Because the total quantity of wastewater generated is not significant in determining the unit cost of treatment, we propose to set the MACT floor for this industry segment based only on HAP concentration and not flowrate. Based on the data from the industry, the MACT floor for existing sources would be set based on a concentration of 4,000 ppmw, representing the median concentration of controlled streams from the industry, while the MACT floor for new sources would be set based on a concentration of 2,000 ppmw, which corresponds to the lowest HAP concentration that is controlled. These requirements are based on the practices of nine facilities that reported information regarding wastewater on ten streams. Five of the ten wastewater streams were reported as being controlled, and all were controlled by being drummed and incinerated because they were also RCRA wastes. Thus, the control level was considered to be equivalent to that required by the HON.

d. *Transfer Operations.* In the data gathering effort for this project, no data were requested regarding transfer operations. Therefore, we relied on other available information to set the MACT floors. In the absence of data specific for individual coating manufacturers, we reviewed several State rules to determine the minimum level of control that would apply to

transfer operations at facilities in those States. At a minimum, those rules require 90 percent control of operations where greater than 75 m^3/day (20,000 gal/day), which equates to 27.6 million 1/yr (7.3 million gal/yr), of VOC having vapor pressures of 10.3 kPa (1.5 psia) or more are transferred. These requirements are typically applied to bulk loading into transport vessels such as tank trucks and railcars. For other containers, such as totes and drums, those rules typically do not apply.

Transfer operations at coating manufacturing facilities result from the loading of transport vessels as well as other containers. However, because we are not aware of any existing rules that apply to the loading of these containers, we are not establishing a MACT floor for existing transfer operations at coating manufacturing facilities.

For new sources we conducted a telephone survey of facilities identified in the database to have high HAP throughputs based on the ICR responses for storage tanks. We were unable to identify any facilities that control emissions from bulk loading operations. Because we did not identify any means by which facilities currently are controlling emissions from such operations, we are not establishing a MACT floor for new sources in the Miscellaneous Coating Manufacturing source category.

e. *Equipment Leaks.* We determined that the MACT floor for equipment components is a monthly sensory LDAR program equivalent to the Bulk Gasoline Terminal NESHAP. We based this determination on survey data from the industry that showed that the top performing 12 percent, which consisted of the best 15 of 127 facilities in the database, reported monthly sensory LDAR programs that were considered equivalent to the Bulk Gasoline Terminal NESHAP. Fourteen of the 15 facilities used monthly sensory LDAR programs, while only one facility used a Method 21 monitoring-based LDAR program. We did not consider the one facility representative of the industry. Therefore, we also determined the new source MACT floor to be a monthly sensory program.

3. How Did We Consider Beyond-the-Floor Technology for the Source Categories?

The CAA states that MACT must be the maximum degree of reduction in emissions that is achievable for sources in the source category and shall be no less stringent than the MACT floor. Therefore, we also evaluate options more stringent than the MACT floor in determining what is achievable. These options are discussed below.

a. *Miscellaneous Organic Chemicals Manufacturing Source Category.* For existing sources, we identified options beyond the MACT floor for process vents, storage tanks, and wastewater emission points. We did not develop more stringent options than the floor for equipment leaks or transfer operations. For equipment leaks, the HON LDAR program is the most stringent program available, and, therefore, there were no above-the-floor options to consider. For transfer operations, we did not consider a beyond-the-floor option because we did not have industry-specific data indicating the existence of any above-the-floor option and because of the high level of control (98 percent) required to meet the MACT floor. We do not believe there are any beyond-the-floor options for which the cost would be reasonable. For process vents, storage tanks, and wastewater, the required performance levels (e.g., 98 percent control for process vents) are the same as for the MACT floor. However, the applicability criteria for the beyond-the-floor options are more stringent, requiring the installation of controls on a larger group of affected sources.

For batch process vents, the beyond-the-floor regulatory alternative is the control of all batch vents within a process with uncontrolled emissions of 2,270 kg/yr (5,000 lb/yr) (the MACT floor requires control of all batch vents within each process with uncontrolled emissions of 4,540 kg/yr (10,000 lb/yr)). The 2,270 kg/yr value was selected for the alternative because it represents the midpoint between the MACT floor value and no cutoff. A cutoff is necessary because the required performance level is high (98 percent) and some allowance for less cost effective or difficult to control vents should be available.

For continuous process vents, our regulatory alternative applicability level is a TRE of 5.0 (the MACT floor TRE is 2.6). This level also coincides with the new source MACT floor and is an indication that the level is technically feasible to achieve since at least one facility in the industry is currently controlling a stream(s) with this TRE.

For storage tanks, the beyond-the-floor regulatory alternative vapor pressure applicability is greater than or equal to 3.4 kPa (0.5 psia), as opposed to the MACT floor vapor pressure applicability of greater than or equal to 6.9 kPa (1.0 psia). The capacity applicability remains at 38 m^3 (10,000 gal), the size of a small storage tank. An applicability cutoff in terms of vapor pressure is reasonable so that nonvolatile materials are not required to be controlled. Therefore, we selected a vapor pressure cutoff halfway between the MACT floor applicability cutoff and zero.

For wastewater, we developed a beyond-the-floor option that changed one of the two sets of applicability criteria relative to the MACT floor. This option has flowrate and concentration applicability cutoffs of 1 lpm and 500 ppmw (the MACT floor is 10 lpm and 1,000 ppmw). We developed an option based on these applicability criteria to be consistent with the applicability cutoffs provided in the Wastewater NSPS (40 CFR part 63, subpart YYY). The beyond-the-floor option also includes the same applicability cutoffs of 10,000 ppmw at any flow rate as for the MACT floor.

For new sources, we did not develop beyond-the-floor options for process vents, transfer operations, and storage tanks because the new source floors are already more stringent than either the floor or a beyond-the-floor option for existing sources for which costs were reasonable. For equipment leaks, we did not develop a beyond-the-floor regulatory alternative because the subpart H program is already the most stringent program. For wastewater, we developed a beyond-the-floor option that combines the same performance level as the floor with the most stringent applicability cutoffs of both the new source floor and the beyond-the-floor option for existing sources. Thus, the applicability cutoffs for this option consist of 10,000 ppmw of Table 9 HAP at any flow rate, 500 ppmw of Table 9 HAP at flow rates greater than 1 lpm, and 10 ppmw of Table 8 HAP at flow rates greater than 0.02 lpm.

b. *Miscellaneous Coating Manufacturing Source Category.* We developed beyond-the-floor options, or regulatory alternatives, for all five types of emission points at existing sources and for equipment leaks and transfer operations at new sources. These options are described below. We did not develop beyond-the-floor options for process vessels, storage tanks, and wastewater emission points at new sources because the new source floors are already more stringent than either the floor or a beyond-the-floor option for existing sources for which costs were reasonable.

For stationary process vessels, we evaluated regulatory alternatives beyond-the-floor based on a higher level of control, 75 percent reduction, rather than the 60 percent reduction established in the MACT floor. For portable process vessels, we evaluated the same alternative as for stationary vessels. We evaluated the 75 percent

control level based on our knowledge of the predominant HAP in the industry and the emission stream characteristics from process vessels. We believe that the 75 percent reduction is achievable with the use of condensers, and this alternative represents a cost effective and environmentally sound strategy that results in lower secondary impacts than other strategies such as incineration.

For storage tanks, we evaluated two regulatory alternatives, both with a performance level of 90 percent (or the use of an internal floating roof or external floating roof), which is consistent with the highest performance level at an existing source. We selected a partial pressure cutoff of 1.9 psia and a tank capacity of 75 m^3 (20,000 gal) for one option because these are common cutoffs used in many other NESHAP. We also developed a second regulatory alternative with a lower capacity cutoff of 38 m^3 (10,000 gal) and the same partial pressure cutoff of 13.1 kPa (1.9 psia).

For wastewater existing sources, the beyond-the-floor option includes the same suppression and treatment requirements as the MACT floor, but the applicability cutoff was reduced from 4,000 ppmw to 2,000 ppmw. This lower concentration corresponds with the lowest concentration in a controlled wastewater stream at an existing facility in the source category, and it is one of the lowest concentrations in any wastewater stream in the source category.

For transfer operations, we developed a beyond-the-floor option for both existing and new sources that requires at least 75 percent control of HAP emissions from bulk loading of products with a HAP vapor pressure greater than or equal to 10.3 kPa (1.5 psia) and a throughput greater than or equal to 11.4 million 1/yr (3.0 million gal/yr). Emissions from bulk loading exhibit the same characteristics as emissions from the transfer of materials in process vessels (i.e., they result from displacement of gases during filling and are assumed to be saturated emission streams that can be effectively controlled using condensers). The 75 percent control requirement is achievable using condensers on these streams. Therefore, we developed this regulatory alternative to be consistent with the regulatory alternative for stationary process vessels so that the facility could use the same control for both types of emission points.

For equipment leaks, the beyond-the-floor option for both new and existing sources is the HON LDAR program. This program is the most stringent program in practice.

4. How Did We Select the Standards?

We selected the proposed standards for both source categories based on our evaluation of the floors and regulatory alternatives discussed above. When evaluating the more stringent options, we consider the costs, nonair quality health and environmental impacts, and energy requirements that accompany the expected emissions reductions. This rationale is discussed below.

a. *Miscellaneous Organic Chemicals Manufacturing Source Category.* The proposed standards for equipment leaks and transfer operations at both new and existing sources, and the standards for process vents and storage tanks at new sources, are based on the MACT floor because no beyond-the-floor option was developed. When a beyond-the-floor option was developed (i.e., for process vents and storage tanks at existing sources and wastewater at both new and existing sources), we evaluated the incremental impacts of going beyond the MACT floor.

For continuous process vents at existing sources, we concluded that the total impacts of the above-the-floor option would be unreasonable in light of the HAP emission reductions achieved. Specifically, the incremental HAP reduction achieved by the above-the-floor option is 50 Mg/yr, and the incremental cost is $61,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is 3.5 million kwh/yr (an average increase of 58,000 kwh/yr for an estimated 60 facilities with additional vents subject to control under the above-the-floor option). The incremental steam consumption for steam-assist flares is 45 million lb/yr (about 750,000 lb/yr/facility). The incremental fuel energy for natural gas (to operate incinerators and flares and to generate steam) and coal to generate the electricity is about 500 billion Btu/yr (about 8.3 billion Btu/yr/facility). Total carbon monoxide (CO), nitrogen oxides (NO_X), and sulfur dioxide (SO_2) emissions from the combustion of these fuels would increase by about 66 Mg/yr. There would be no wastewater or solid waste impacts. We concluded that the total impacts of the above-the-floor option would be unreasonable compared to the HAP emissions reductions achieved. Therefore, the proposed standard for continuous process vents at existing sources is based on the MACT floor.

For batch process vents at existing sources, we also concluded that the total impacts of the above-the-floor option would be unreasonable in light of the HAP emissions reductions achieved. The incremental HAP reduction achieved by the above-the-floor option is 145 Mg/yr, and the incremental cost is $15,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is 5.1 million kwh/yr (an average increase of 135,000 kwh/yr for an estimated 38 facilities with additional vents subject to control under the above-the-floor option). The incremental steam consumption for steam-assist flares is 6.0 million lb/yr (about 160,000 lb/yr/facility). The incremental fuel energy for natural gas (to operate incinerators and flares and to generate steam) and coal to generate the electricity is about 340 billion Btu/yr (about 9.0 billion Btu/yr/facility). Total CO, NO_X, and SO_2 emissions from the combustion of these fuels would increase by about 66 Mg/yr. There would be no wastewater or solid waste impacts. We concluded that the total impacts of the above-the-floor option would be unreasonable compared to the HAP emissions reductions achieved. Therefore, the proposed standard for batch process vents at existing sources is based on the MACT floor.

We reached a similar conclusion for storage tanks at existing sources. For such storage tanks, the incremental HAP reduction achieved by the above-the-floor option is 30 Mg/yr, and the incremental cost is $19,000/Mg of HAP controlled. The incremental electricity and fuel consumption rates for storage tanks controlled with condensers at existing sources are 15,000 kwh/yr and 145 million Btu/yr, respectively (about 1,500 kwh/yr/tank and 14.5 million Btu/yr/tank, respectively); there would be no environmental impacts or energy requirements for other storage tanks controlled with floating roofs. The total CO, NO_X, and SO_2 emissions from fuel combustion would increase by only about 0.1 Mg/yr. We concluded that the total impacts of the above-the-floor option would be unreasonable in light of the HAP emissions reductions achieved. Therefore, the proposed standard for storage tanks at existing sources is based on the MACT floor.

Finally, we concluded that the total impacts of the above-the-floor for wastewater at existing sources would be unreasonable compared to the HAP emissions reductions achieved. For wastewater, the incremental HAP reduction for the above-the-floor option is 400 Mg/yr, and the incremental cost is about $15,000/Mg of HAP controlled. Additional wastewater streams at 24 existing facilities would be subject to the treatment requirements under the above-the-floor option. The incremental electricity and steam consumption rates to comply with these requirements, per facility, are about 47,000 kwh/yr and 8.3

million lb/yr, respectively. Incremental fuel consumption to generate the electricity and steam is about 13 billion Btu/yr/facility. Total CO, NO_X, and SO_2 emissions from the fuel combustion would increase by 33 Mg/yr. We concluded that the total impacts for the above-the-floor option for existing sources would be unreasonable. Therefore, the proposed standard for wastewater at existing sources is based on the MACT floor.

For wastewater at new sources, the differences between the above-the-floor option and the MACT floor are the same as for existing sources. Therefore, we also concluded that the incremental impacts of the above-the-floor option for new sources would be unreasonable, and the proposed standard for wastewater at new sources is based on the MACT floor.

The proposed standards apply to cleaning as well as actual production steps because we understand that vessel cleaning is integral to the process. This is consistent with operations in other industries with batch processes such as pharmaceuticals production. We are soliciting comments on cleaning procedures, emissions from cleaning, and any additional costs of controlling emissions from cleaning as part of the process.

b. *Miscellaneous Coating Manufacturing Source Category.* For the Miscellaneous Coating Manufacturing source category, we decided to propose the regulatory alternatives identified as above-the-floor for stationary process vessels at existing sources, storage tanks at existing sources, and transfer operations and equipment leaks at both new and existing sources. In these cases, we found that the incremental cost and non-air quality environmental impacts and energy requirements of going above the MACT floors are acceptable. By contrast, for stationary process vessels, portable process vessels, storage tanks, and wastewater at new sources, we are proposing standards based on the MACT floor because we determined that either the MACT floor itself is based on a very high level of control or the MACT floor requirements are more stringent than existing source regulatory alternatives for which incremental costs and other impacts were not acceptable. Similarly, for wastewater at existing sources, we are proposing standards based on the MACT floor because we determined that the incremental costs and other impacts to go above the MACT floor were not acceptable.

For stationary process vessels at existing sources, we concluded that the total impacts of the above-the-floor option were reasonable. For such stationary process vessels, we found that going from the cover plus a 60 percent control device to the cover plus a 75 percent control device reduces HAP emissions by nearly 1,700 Mg/yr and reduces annual costs by $80/Mg of HAP controlled. Assuming the control levels for both the MACT floor and the above-the-floor option are achieved using condensers, incremental electricity consumption is about 2.7 million kwh/yr (an average increase of approximately 31,000 kwh/yr per facility). To generate this electricity, fuel consumption (coal) is estimated to increase by 26.6 billion Btu/yr, and total CO, NO_X, and SO_2 emissions are estimated to increase by less than 23 Mg/yr. There would be no wastewater or solid waste impacts. Thus, we selected the regulatory alternative as the proposed standard for stationary vessels at existing sources. The proposed standard for stationary vessels at new sources is based on the MACT floor, which consists of a cover and an add-on control device that reduces HAP emissions by at least 95 percent because, as described above, we did not develop a more stringent option.

For portable process vessels at existing sources we concluded that the total impacts of the above-the floor option were unreasonable in light of the HAP emissions reductions achieved. Specifically, going from the MACT floor (a cover) to a cover plus a control device achieving 75 percent reduction reduces HAP emissions by about 400 Mg/yr. Assuming the control device is a condenser, the incremental cost is approximately $21,000/Mg of HAP controlled. In addition, electricity consumption to operate refrigeration units would increase from zero at the MACT floor to more than 900,000 kwh/yr (an average increase of about 11,000 kwh/yr/facility for an estimated 85 facilities with portable process vessels subject to additional control under the above-the-floor option). Fuel consumption (coal) to generate the electricity would increase by more than 9.0 billion Btu/yr; collectively, CO, NO_X, and SO_2 emissions would increase by 8 Mg/yr. There would be no wastewater or solid waste impacts. We concluded that the total impacts for this option were unreasonable. Therefore, we selected the MACT floor as the proposed standard for portable process vessels at existing sources. The proposed standard for portable vessels at new sources also is based on the MACT floor, which consists of a cover and an add-on control device capable of reducing HAP emissions by at least 95 percent because, as described above, we did not develop a more stringent option.

For storage tanks at existing sources, we found the impacts of the first above-the-floor option, which requires control of tanks greater than or equal to 75 m^3 (20,000 gal) storing material with a vapor pressure greater than or equal to 13.1 kPa (1.9 psia), to be reasonable compared to the HAP emissions reductions achieved. This option reduces emissions by 2.5 Mg/yr at an incremental cost of $2,700 to $4,900 per Mg of HAP controlled, depending on the characteristics of the tanks. In addition, because the above-the-floor option can be achieved using floating roofs, there are no non-air quality environmental impacts or energy requirements. However, we found the second option, which would have required control of all tanks having a capacity of at least 38 m^3 at the same vapor pressure applicability cutoff, has incremental costs of more than $17,000/Mg of HAP controlled. There would also be increased non-HAP environmental impacts and energy requirements to operate condensers to control emissions from the tanks with capacities between 38 m^3 and 75 m^3; we did not quantify these impacts. Therefore, we selected the option that requires control of tanks with capacities greater than or equal to 75 m^3 storing material with a vapor pressure greater than or equal to 1.9 psia as the proposed standard for storage tanks at existing sources. By contrast, the proposed standard for storage tanks at new sources is based on the MACT floor because, as described above, we did not develop a more stringent option.

For wastewater at existing sources, we concluded that the impacts of the above-the-floor regulatory option were unreasonable compared to the HAP emissions reductions achieved. For wastewater at existing sources, the above-the-floor regulatory option is the control of all streams with a total HAP concentration greater than 2,000 ppmw (the MACT floor was 4,000 ppmw). For the impacts analysis, we assumed that the required treatment would be achieved using a steam stripper or by sending the wastewater offsite for treatment, depending on the quantity generated. We estimated that the above-the-floor option would require treatment by one additional facility and reduce HAP emissions by less than 0.5 Mg/yr at an incremental cost of more than $200,000/Mg of HAP controlled. In addition, electricity consumption would increase by about 700 kwh/yr; steam consumption would increase by 120,000 lb/yr; energy to generate the electricity and steam would increase by 180 million Btu/yr; and total CO, NO_X, and

SO_2 emissions would increase by 0.02 Mg/yr of HAP controlled. There may also be solid waste impacts if condensed steam and pollutants from the steam stripper cannot be reused. We concluded that the total impacts for the above-the-floor option were unreasonable. Therefore, we are proposing that the standard for wastewater at existing sources be based on the MACT floor. The proposed standard for wastewater at new sources is also based on the MACT floor (i.e, the HON suppression and treatment requirements for all streams with a total HAP concentration greater than 2,000 ppmw) because, as described above, we did not develop a more stringent option.

For transfer operations, we found that the total impacts of the above-the floor option were reasonable in light of the HAP emissions reductions achieved. Specifically, the above-the-floor option would reduce HAP emissions by about 37 Mg/yr at an incremental cost of less than $3,000/Mg of HAP controlled. In addition, under the above-the-floor option, operation of a refrigeration unit at one existing facility would increase electricity consumption by about 2,150 kwh/yr; increase energy consumption by 21 million Btu/yr; and increase total CO, NO_X, and SO_2 emissions by less than 0.02 Mg/yr. There would be no non-air environmental impacts. We concluded that the total impacts for the above-the-floor option were reasonable. Therefore, for both new and existing sources, we are proposing that the emission limitation be based on the above-the-floor option which would require at least 75 percent control of HAP emissions from bulk loading of products with a HAP throughput greater than or equal to 11.4 million 1/yr (3.0 million gal/yr) and a weighted HAP partial pressure greater than or equal to 10.3 kPa (1.5 psia).

For equipment leaks, our model analysis indicates that implementing an above-the-floor option consisting of a HON-equivalent LDAR program instead of the sensory program determined to be the floor would reduce HAP emissions by 360 Mg/yr at an incremental cost of $2,700/Mg of HAP controlled. In addition, there are no environmental impacts or energy requirements associated with implementing the above-the-floor option. We concluded that the total impacts for the above-the-floor option were reasonable. Therefore, we are proposing that the standard for equipment leaks for both existing and new sources be based on the HON LDAR program or the equivalent program in the Generic MACT (40 CFR part 63, subpart UU).

The proposed standards for cleaning operations are the same as for any other process operation because controls implemented while cleaning are the same as for normal process operation. This is consistent with batch operations in other industries such as for pharmaceuticals production. For example, the MACT floor for stationary process vessels is based on controls. Cleaning operations are part of the floor because we understand that if emissions are controlled while mixing raw materials, then emissions are also controlled during cleaning. Therefore, we concluded that cleaning operations should also be included in the regulatory alternative for process vessels. Similarly, we based the MACT floor for wastewater treatment on discharges of cleaning fluids. In fact, all of our wastewater data from coatings manufacturing is from cleaning operations. We are soliciting comments on cleaning procedures, emissions from cleaning, and any additional costs of controlling emissions from cleaning as part of the process.

D. How Did We Select the Format of the Standards?

The MACT standards proposed today are presented in numerous formats. The discussion below describes the information we considered in selecting these formats. The requirements for storage tanks, transfer operations, wastewater, and equipment leaks follow formats similar to formats used in other regulations, enabling some streamlining of requirements in cases where facilities must comply with multiple regulations.

For storage tanks, the proposed standards follow the same format as in other Federal regulations. The format of the standards for storage tanks is a combination of work practice standard and emission limitation—tanks which require control must either be fitted with floating roofs or vented to add-on control devices meeting a percent removal requirement. These formats allow the owner operator maximum flexibility to comply by using an add-on control device while maintaining a simple option to comply using a work practice standard.

Work practice standards, where compliance is based on operating or equipment practice rather than specific emission limitations, have been recognized as effective ways to limit HAP emissions without the burden of characterization of actual HAP emissions and comparison against numerical limits. Section 112(h) of the CAA recognizes the need for alternative forms of standards, such as work practice standards. Therefore, work practice standards such as the use of floating roofs on tanks or LDAR programs for the control of equipment leaks are proposed in these NESHAP.

Standards for transfer operations follow the same format as the standards contained in the HON. The standards allow for vapor return of displaced materials back to the process or storage container, or require a percent reduction from uncontrolled levels achieved with the use of an add-on control device. Note that both proposed standards apply only to bulk loading into trucks or railcars. Loading into smaller vessels (e.g., drums) that do not have a dedicated vent or stack would create a capture efficiency issue, and an effective control system would likely be based on induced draft capture, which would result in a dilute emission stream. The control device for this type of system would be incineration, and it would not be cost effective. Note that the percent reduction requirement for transfer operations in the Miscellaneous Coatings Manufacturing source category is the same as that for stationary process vessels (i.e., lower than the requirement in the HON).

Standards for wastewater also follow the formats proposed in other NESHAP such as the HON. For the Miscellaneous Coating Manufacturing source category, the applicability criteria consists only of concentration because the quantity generated is of lesser importance. For the Miscellaneous Organic Chemical Manufacturing source category, we are proposing exactly the same language, including applicability, as was done in the HON.

The proposed LDAR standards reference subpart UU. That LDAR program allows less frequent monitoring and repair compared to the HON, but is as effective as the HON because it targets those components that are most likely to leak.

Because of the broad applicability of the Miscellaneous Organic Chemical Manufacturing source category, the requirements contained in these proposed standards for applicable process vent emissions sources are formatted so they can be applied to numerous types of emission sources. Requirements for process vents are structured in the format of percent reduction coupled with TRE and mass applicability limits. Requirements for batch emissions sources are based on a percent reduction from a defined uncontrolled baseline over the group of batch vents that are contained in a process, as was done in the Pharmaceuticals Production NESHAP. For continuous process vents, the requirements for control are based on

the TRE format applied in the HON. Both formats allow for a variety of control devices and are easily implemented over a variety of process vent sources.

The pollution-prevention standard is based on the premise that a reduction in consumption of HAP can be associated with a reduction in losses to air, water, or solid waste. The required 65 percent reduction in the production-indexed HAP consumption factor is equivalent to the overall reductions in emissions achieved by the emission limitations and work practice standards for process vents, storage tanks, wastewater, and equipment leaks. Consumption, rather than emissions, is tracked because it can be used as a true measure of pollution prevention; any decrease in consumption for the same unit of product produced must involve some type of increase in process efficiency, including reduction of waste, increased product yield, and in-process recycling. The pollution prevention alternative standard only applies to chemical manufacturing batch processes because the batch process vent standards apply to all vents from the process. The continuous process vent standard applies to single vents and is not a process based standard. Since the TRE for continuous vents is applied after the last recovery device, pollution prevention has already been considered in the applicability of the control requirements for continuous vents.

For the Miscellaneous Coating Manufacturing source category, process emission sources are vessels used to mix and transfer materials used to make coatings. For process vessels, the standards are a combination of work practice standard and percent reduction. The requirement to maintain a sealed and gasketed cover is a work practice standard. Without such an equipment standard, it would be difficult to demonstrate capture of displaced vapors into the control device.

Generally, both mixing operations and transfer operations are conducted at ambient temperatures. The HAP used in coating manufacturing operations include toluene and xylene. Based on this narrow set of operating conditions, process vent and transfer operation emissions from this source category are expected to generally result from displacements; emission streams from these displacement events are expected to be saturated at ambient conditions. The choice of control devices is narrower than in the previous source category. In general, we expect that the use of condensers will satisfy the control requirements.

We are, therefore, proposing the use of an additional format for demonstrating compliance with the stationary process vessel standards and the transfer operations standards that is based on achieving preset condenser outlet temperatures that correspond to ranges of material vapor pressures. This option is intended to simplify the compliance demonstration because it eliminates the demonstration of 75 percent reduction using uncontrolled and controlled emission estimates. The preset ranges are presented in Table 1.

TABLE 1.—REQUIRED CONDENSER EXIT GAS TEMPERATURES

HAP partial pressure ranges at 25°C, kPa (Psia)	Required outlet gas temperatures, °C
<0.7 kPa (0.1 psia)	10
≥0.7 kPa (0.1 psia) to <17.2 kPa (2.5 psia)	2
≥17.2 kPa (2.5 psia)	−5

These values were set by calculating, on average, necessary temperatures to condense 75 percent of the HAP in streams predominantly composed of materials representing vapor pressure ranges of xylene, toluene, and methanol, common materials in this industry. For wastewater streams, applicability is based only on the wastewater constituent concentrations and follows waste disposal practices for compliance with RCRA since the scale of operations generally precludes the installation and operation of wastewater treatment systems.

We considered other format options for MACT standards, including using mass emission rates and outlet concentrations. For the Miscellaneous Organic Chemicals Manufacturing source category, we concluded that a percent reduction format allows the most flexibility in terms of defining the floors and in terms of compliance with the standard. A mass rate standard could not easily be established that would apply to the multitude of operations covered by the standards because of the variability in products, materials, and processing conditions. For example, we would not want to set a MACT floor based solely on an emission limit that would be easily met by some sources because of the nature of their operation, but could not be achieved by all sources in the category. However, we note that the 4,540 kg/yr (10,000 lb/yr) applicability limit for batch process vents is a type of mass emission limit. When coupled with the percent reduction, the mass limit allows owners and operators some flexibility in determining what portions of processes to control. Yet, the complementing portion of the standard also offers a percent reduction to enable all facilities in the source category to comply. No mass limit is proposed for the Miscellaneous Coating Manufacturing source category because we could not establish an acceptable emissions limit below which no control would be required, based on the MACT floor.

We are also proposing a concentration standard as an alternative to a percent reduction standard for process vents and storage tanks. This alternative standard was also provided in the Pharmaceuticals Production NESHAP as a means of complying with that NESHAP by manifolding multiple vents or sources to a common device. Sources can comply by continuously monitoring the outlet concentration of the control device using a continuous emissions monitoring system (CEMS) and ensuring that the TOC concentration does not exceed 20 ppmv for combustion devices or 50 ppmv TOC for noncombustion devices. If halogenated compounds are present, you must also monitor for hydrogen halides and halogens and maintain these concentrations to below 20 ppmv.

E. How Did We Select the Testing and Initial Compliance Requirements?

Testing and initial compliance demonstration provisions contained in the NESHAP are based on the requirements contained in the HON for continuous process vents, transfer sources, and wastewater sources, the Generic MACT for storage tanks, and the Pharmaceuticals Production NESHAP for batch process vents and coatings process vessels. We believe that it is reasonable to use the HON and Generic MACT compliance demonstration provisions requirements for the above sources because the formats are consistent with the HON and Generic MACT requirements, and because we expect many affected sources are already familiar with the provisions, especially those sources that have colocated miscellaneous organic chemical manufacturing process units and HON units. The Generic MACT compliance provisions for certain sources (fired sources such as boilers and process heaters) also closely follow requirements contained in the NSPS, and, therefore, owners and operators of miscellaneous coatings facilities may also have some familiarity for these types of sources. In the interest of streamlining requirements for title V permits, using these existing provisions may also provide opportunities for

condensing identical or similar requirements.

The testing and initial compliance demonstration provisions of the Pharmaceuticals Production NESHAP are referenced for miscellaneous organic chemical manufacturing batch process vents and for miscellaneous coatings stationary process vessels because that NESHAP considers the issues associated with the characterization and control of batch emission sources. There are two important concepts contained in the Pharmaceuticals Production NESHAP that will also apply to the batch sources in these source categories, and they are: (1) The use of emission estimation equations to determine uncontrolled and controlled emissions, and (2) the consideration of aggregated batch emission sources in the development of an initial compliance demonstration under worst case conditions. There are more reliable, less costly methods to characterize emissions from batch processes using accepted methodologies to estimate emissions from batch emission sources rather than using testing strategies that are limited in data. This is because the characteristics that drive emissions, flow and concentration, often vary independently of each other in batch emission events. The use of a single data point for flow and one for concentration may not be representative of emissions over the event. Conversely, the use of accepted emission estimation methodologies provides a consistent set of guidelines for calculating emissions and is especially important in these proposed NESHAP, since compliance rests on demonstrating a percent reduction from an uncontrolled value. The uncontrolled value must be calculated consistently in order for the NESHAP to be fairly and consistently applied across the industry.

As a related issue, we have also required the same process condenser control efficiency demonstration requirement as in the Pharmaceuticals Production NESHAP for some batch process vents in miscellaneous organic chemicals manufacturing sources. As in the Pharmaceuticals Production NESHAP, we proposed to exclude from the demonstration requirement any process condensers followed by secondary condensers that would be considered air pollution control devices and air pollution control devices complying with the alternative standard. This compliance procedure for process condensers is being proposed to ensure that owners and operators will accurately characterize uncontrolled emissions.

The emission estimation methodologies provided in the Pharmaceuticals Production NESHAP and referenced in these proposed NESHAP were also used in the Polymers and Resins NESHAP (40 CFR part 63, subparts U and JJJ). They are based on accepted vapor-liquid equilibrium principles and were reviewed extensively during the development of the Pharmaceuticals Production NESHAP.

The worst-case testing provisions are structured to account for the most challenging conditions to which a control device will be exposed. The initial compliance demonstration is also tied to the continuous compliance demonstration in that an operating parameter is used as an indicator of the control device's performance over time, and the operating parameter is first ''calibrated'' against the control efficiency achieved by the device during the initial compliance demonstration. Therefore, the initial compliance demonstration must be conducted at the most challenging conditions in order to ensure continuous compliance under all other conditions. However, the proposed NESHAP are structured such that monitoring is required only for those events that are controlled for the purposes of complying with the proposed NESHAP.

We also have provided some language in the proposed NESHAP that clarifies appropriate methods for demonstrating compliance with percent reduction requirements and emission concentration limits on combustion devices. The proposed NESHAP allow owners and operators to use either Method 25, 25A (under certain specific conditions), or 18 to demonstrate compliance with the HAP percent emission reduction requirement. However, if Method 18 is used, we clarify that only HAP that are present in the inlet to the device can be used to characterize the percent reduction across the device. Additionally, you must first determine which HAP are present in the inlet gas stream (*i.e.,* uncontrolled emissions) using process knowledge or a screening procedure. When using Method 25 or 25A, you must measure the inlet and outlet mass emissions as carbon.

We provided this clarification because when organic compounds are controlled by combustion processes, the organic pollutants emitted at the outlet of the device are not the same as those entering the inlet to the device and are typically unknown. Method 18, which measures specific, known compounds, will not yield accurate results unless it can be used to determine the percent reduction of known compounds across the device. Conversely, Method 25 measures total non-methane organic compounds and can be used to determine percent reduction across the combustion device regardless of how the combustion process affects the inlet and outlet streams. Under certain conditions (*i.e.,* controlled emissions concentrations less than 50 ppmv), Method 25A may be used in lieu of Method 25 for determining the reduction across a combustion device.

In demonstrating compliance with the outlet concentration standard, you may use Method 18 or Method 25A. If Method 18 is used, the resulting concentration must be reported as the compound or compounds measured; however, if Method 25A is used, the concentration must be reported as carbon.

Initial compliance with the pollution-prevention alternative would be accomplished by documenting yearly quantities of HAP raw materials and products using available records, including standard purchasing and accounting records, and periodically calculating annual rolling totals of the production-indexed HAP consumption factor for comparison with the baseline value. The factor must be calculated every 30 days for continuous processes, and every 10 batches (up to once per month) for batch processes.

F. How Did We Select the Continuous Compliance Requirements?

Monitoring is required by the proposed NESHAP to determine whether a source is in compliance on an ongoing basis. We selected the continuous compliance requirements based on a combination of general monitoring requirements in the General Provisions (subpart A) and specific monitoring requirements for the HON and Pharmaceuticals Production source categories.

1. General Monitoring Requirements

As specified in § 63.8(c) of the General Provisions, sources must record the data from their monitoring systems at least once every 15 minutes. However, for control devices that are determined to control less than 0.91 Mg/yr (1 ton/yr) of HAP, the proposed subparts require only a daily verification that the devices are operating as required, consistent with the referenced Pharmaceuticals Production NESHAP. We are also referencing limits for the minimum amount of data that can be recorded to demonstrate compliance with the proposed NESHAP, based on requirements in the HON and the Pharmaceuticals Production NESHAP.

Sources would be required to calculate either daily or block averages of their operating parameter values for the purpose of ensuring continuous compliance. We selected the daily or block averaging times referenced in the Pharmaceuticals Production NESHAP again following consistency with the initial compliance demonstration.

2. Continuous Monitoring

When determining appropriate monitoring options, we consider the availability and feasibility of the following strategies in a ''top-down'' approach: (1) CEMS for the actual HAP emitted, (2) CEMS for HAP surrogates, (3) monitoring operating parameters, and (4) work practice standards. In evaluating the use of CEMS in these proposed NESHAP, monitoring of individual HAP species may not be reasonable or technically feasible for many streams. For those cases where it is feasible, CEMS meeting Performance Specification 9 or 15 may be used to measure and report emissions as individual HAP compounds. However, in the case of continuous monitoring of surrogates, continuous TOC monitoring is considered a viable and efficient monitoring option and is provided in these proposed NESHAP. The alternative standard makes use of CEMS that meet Performance Specification 8 that have been calibrated using the predominant HAP in the stream. The results must be reported as carbon when compared to the 20 ppmv emission limit for combustion devices or 50 ppmv emission limit for noncombustion devices. To monitor hydrochloric acid emissions, you must either use a CEMS that meets Performance Specification 15, or if you wish to use a CEMS for which we have not promulgated a Performance Specification, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in § 63.8 of the General Provisions. The requirement to submit a monitoring plan for approval is an interim solution that is necessary until we promulgate applicable Performance Specifications.

Monitoring of control device operating parameters is considered appropriate for many other emission sources, and therefore, most of the other monitoring options provided in the proposed NESHAP are based on parametric monitoring.

Based on information from the source categories, we selected operating parameters for the following types of control devices that are reliable indicators of control device performance: thermal and catalytic incinerators, flares, carbon adsorbers, scrubbers, and condensers. In general, we selected parameters and monitoring provisions that are contained in the HON and in the Pharmaceuticals Production NESHAP. The range of parameter limits in both NESHAP should cover both batch and continuous production processes. Sources would monitor these operating parameters to demonstrate continuous compliance with the emission limitations and operating limitations.

We are also proposing monitoring parameters for catalytic incinerators that are different from parameters that have been required to be monitored in existing NESHAP. Instead of requiring monitoring of the temperature differential across the catalyst bed, we are proposing that the inlet temperature into the incinerator be monitored, since we believe that this parameter would be a better indicator of overall incinerator performance for the type of emission stream characteristics we expect to find in these source categories. For low flow or dilute concentrations, we believe that it may not always be possible to achieve the recommended temperature differential. We are also proposing to require an annual catalyst test to verify that the catalyst activity is still acceptable.

3. Other Monitoring

You may choose an alternative to the monitoring required by the proposed NESHAP. If you do, you must request approval for alternative monitoring according to the procedures in subpart A, § 63.8, or you must request the approach in your precompliance report.

The proposed NESHAP also contain monitoring for work practice standards involving periodic inspections for equipment integrity. These monitoring requirements include storage tank seal inspections, wastewater component surface inspections, and bypass and closure device inspections and are also required by the HON and the Pharmaceuticals Production NESHAP.

G. How Did We Select the Notification, Recordkeeping, and Reporting Requirements?

We selected the notification, recordkeeping, and reporting requirements based on generic requirements in the General Provisions and specific requirements for the HON and Pharmaceuticals Production NESHAP.

1. Notification Requirements

The notification requirements in the proposed NESHAP include initial notifications, notification of performance test, notification of compliance status, and notification dates. These notification requirements are based on requirements in §§ 63.6(h), 63.7(b) and (c), 63.8(e) and (f), 63.9(b), (f), and (h), and 63.10(d)(2) of the General Provisions.

2. Reporting Requirements

The reporting requirements that we selected include semiannual compliance reports, required in § 63.10(e)(3), and immediate startup, shutdown, and malfunction reports, required in § 63.10(d)(5)(ii). If there are no deviations from the standards during the reporting period, then your semiannual compliance report must include a statement to that effect. If there were deviations from the standards during the reporting period, then your semiannual compliance report must include the information listed in Table 15 of the proposed subpart FFFF or HHHHH. For each deviation where a CEMS is used to comply with the standards, your compliance report must also include the information in §§ 63.8(c)(8), 63.10(c)(5) through (13), and 63.10(e)(3)(vi). If there was a startup, shutdown or malfunction during the reporting period, and you took actions consistent with your startup, shutdown, and malfunction plan, then your compliance report must include the information in § 63.10(d)(5)(i). The submittal date for the compliance report is based on information in § 63.10(e)(3)(v).

If there was a startup, shutdown, or malfunction during the reporting period, and you took actions inconsistent with your startup, shutdown, and malfunction plan, then you must submit an immediate startup, shutdown, and malfunction report. The report must include the actions taken for the event and the information provided in § 63.10(d)(5)(ii). The submittal date for the immediate startup, shutdown, and malfunction report is based on § 63.10(d)(5)(ii).

3. Recordkeeping Requirements

The proposed NESHAP require you to maintain a copy of each notification and report, as well as documentation supporting any initial notification or notification of compliance status, according to the requirements in § 63.10(b)(1)(xiv). You must also keep the records in § 63.6(e)(3) related to startup, shutdown, and malfunction; records of performance tests and performance evaluations, as required in § 63.7(g)(1); and records for each CEMS and parameter monitoring system.

The records for the CEMS would include the records described in § 63.10(b)(vi) through (xi); superseded

versions of the performance evaluation plan, as required in § 63.7(d)(3); and the request for alternatives to a relative accuracy test for CEMS, as required in § 63.8(f)(6)(i). The records for the parameter monitoring system would include records of operating limits and parameter monitoring data. You must keep records of all material balances and calculations documenting the percent reduction in HAP emissions used to demonstrate compliance with the standards.

H. What Is the Relationship of These Proposed NESHAP to Other Rules?

This section discusses the relationship between today's proposed NESHAP and other Federal rules covering facilities containing sources in these source categories. This section also discusses the relationship between proposed subpart HHHHH and MACT rules that are currently under development for source categories in the Surface Coating Processes Industry Group.

In today's proposed NESHAP, we cross-reference pertinent existing rules to maintain consistency with other Federal standards. Subparts GGG (the Pharmaceuticals Production NESHAP) and SS (the Generic MACT) contain requirements for emissions sources that are similar to those found in these source categories. These existing standards reflect the current Agency positions that have been developed through numerous rulemaking efforts. By maintaining consistency with these existing standards, we believe we have reduced the burden to regulators and industry in limiting the amount of material that must be understood in order to comply. However, we are interested in your specific suggestions for reducing the overall burden of the NESHAP without jeopardizing their enforceability or our overall emission reduction goals.

Because of the broad applicability of proposed subpart FFFF, another issue with regard to the relationship of these rules to other existing MACT rules is that applicability could appear to fit more than one source category in some cases. We have, therefore, included options that allow compliance with one rule in cases where dual MACT coverage of the same affected source might occur. For example, we are allowing affected sources with equipment subject to the equipment leak standards or wastewater standards contained in subpart GGG to comply with the proposed subpart FFFF for all such equipment. Lastly, we have also included provisions that allow compliance with the provisions of these standards in cases where other rules overlap and affect the same affected sources. These provisions apply to sources that must comply with RCRA requirements at 40 CFR parts 264, 265, and 260 through 272; NSPS requirements at part 60, subparts Kb, III, NNN, and RRR; and NESHAP requirements at part 63, subpart H.

Coatings manufacturers are not only potentially subject to proposed subpart HHHHH, but their products and production operations may change as their customers demand coatings that will comply with the requirements of MACT rules for source categories in the Surface Coating Processes Industry Group. Therefore, the coatings manufacturers have requested that we coordinate the timing of the various surface coatings MACT rules and subpart HHHHH so that they have a chance to assess how their production operations may change. We recognize this concern, and we will attempt to coordinate the timing of these rules, while also considering our obligation to promulgate all MACT rules by May 2002 so that States are not required to develop MACT on a case-by-case basis. We are also soliciting comments on how best to coordinate these rules.

I. What Types of Comments Are Being Specifically Requested by the Administrator?

The Administrator welcomes comments from interested persons on any aspect of the proposed rule, and on any statement in the preamble or referenced supporting documents. The proposed rule was developed on the basis of information available. The Administrator is specifically requesting factual information that may support either the approach taken or an alternate approach. In order to receive proper consideration, documentation or data should be provided. This section requests comments on specific issues identified during the development of the standards.

1. What Comments Are We Soliciting on MACT Floor Determinations?

We are requesting comments and data on establishing the MACT floor for processing vessels in coating manufacturing at new sources. The new source MACT floor for processing vessels is 95 percent reduction of HAP for stationary and portable vessels that have a capacity greater than 250 gallons. Seven facilities reported control levels for stationary processing vessels of 95 percent or greater. Two of these facilities reported control levels for portable vessels of 95 percent and greater. Two facilities reported control levels of 99 percent. These processing vessels include removable and fixed roofs and are controlled by thermal oxidizers, carbon adsorbers, and condensers. We determined that 95 percent reduction represents the control level for the best controlled source with consideration given to similarity of sources and total HAP emissions control. For example, one facility reported 95 percent control device efficiency for their portable and stationary vessels equipped with fixed roofs and vented to a thermal oxidizer. We seek comments and data on the representativeness of the facilities as similar sources on which the proposed new source MACT floor is based and the feasibility of controlling emissions from all process vessels at a facility at the proposed 95 percent control level.

We are requesting comments and data on establishing the MACT floor for stationary process vessels at existing coating manufacturing sources. As discussed earlier in this preamble, the proposed MACT floor consists of a cover on the vessel and venting exhaust to a control device that reduces emissions that it receives by at least 60 percent. This control level represents the average of the control levels for the best performing 12 percent of stationary process vessels. We used the average, or mean, instead of the median because the control device efficiencies represented a fairly even, though wide, distribution and a representative control device is available at the mean. However, a large number of vessels in the top 12 percent were not controlled. We are requesting comments on whether the central tendency of the best performing 12 percent of stationary process vessels should be represented by the mean or the median. The median control level achieved for the best performing 12 percent of the vessels is 80 percent. The mean, which is derived by averaging the control efficiencies of both controlled and uncontrolled facilities, results in a level of control that is not actually achieved by any control device in the MACT floor dataset, although the mean is readily achievable with a representative control device for this industry (*i.e.,* condenser). The median represents both a central tendency and a level of control currently being achieved with add-on control. We are soliciting comments on whether we adequately characterized the MACT floor level of control for process vessels at coating manufacturing facilities.

We are requesting comments and data on the basis for establishing the MACT floor for continuous vents in miscellaneous organic chemical manufacturing at existing sources. As

discussed previously in this section, the MACT floor for continuous process vents at existing sources is 98 percent reduction for vents meeting a TRE of 2.6. The MACT floor determination was based on 5 facilities which represented the top 12 percent of the sources. The data used to determine the MACT floor were collected prior to 1996, and in order to move forward with rule development we have not continued to update the information. It has recently come to our attention that some of the data may have changed. Specifically, a plant used in the floor calculation may have closed down. We are soliciting comments on whether we adequately characterized the MACT floor level of control for continuous vents at organic chemical manufacturing facilities.

We are requesting comments and data on establishing the MACT floor for equipment leaks for organic chemical manufacturing sources. We have information on 229 facilities indicating that the LDAR program implemented at 30 facilities is the HON LDAR program or a program equivalent to the HON. We are soliciting comments on whether we adequately characterized the MACT floor level of control for equipment leaks from organic chemical manufacturing.

2. What Comments Are We Soliciting on Definitions?

We are soliciting comments on the definitions of ''batch process,'' ''process vent,'' ''isolated intermediate,'' and ''family of materials'' in the proposed subpart FFFF. The first two definitions are similar to the definitions in 40 CFR part 63, subpart GGG, where a ''process'' means all equipment which function to produce a product or isolated intermediate, and an ''isolated intermediate'' means the product of a process that is stored before further processing. Two important differences between subpart GGG and the proposed subpart FFFF are that precursors are not relevant in the proposed subpart FFFF and that the term ''process'' in the proposed subpart FFFF applies to a family of products. Because the batch process vent standard in the proposed subpart FFFF applies only if the process vents from a single process emit 10,000 lbs/yr HAP; the definition of process is very critical to applicability determinations. It is our intent that the end of a process is marked by long time storage, storage for the purpose of shipping product offsite, or storage for the purpose of building inventory. A process is not an intermediate step in the continuous sequence of steps to produce a final product. In addition, we believe that production of chemicals that vary only slightly in molecular structure, functional groups or other characteristics and are produced by procedures that have essentially identical emission sources and emission stream characteristics should be considered as one process. We use the term ''family of materials'' to describe these types of materials, and the production of these similar products must be grouped into one ''process'' for the purposes of complying with the proposed subpart FFFF. In stakeholder meetings, industry representatives have stated that the proposed definition is not clear regarding which types of products must be included in a family. One suggestion was to include specific criteria about the product characteristics, emissions, and processing steps that materials must have in common in order to be part of a family of materials. Therefore, we are soliciting comments on applicable criteria or other ways to clarify this definition.

According to the proposed definition of ''process vent'' in subpart FFFF, emission streams that are undiluted and uncontrolled containing less than 50 ppmv HAP are not considered process vents. We are requesting comments on the emission stream to which the 50 ppmv criterion should be applied for batch process vents. One approach would be to apply it to each emission episode (*e.g.,* vapor displacement, purge, drying, etc.) in a process, regardless of the point from which it is emitted. Another approach would be to combine all of the emission episodes that are released from a particular point (*e.g.,* vapor displacement and depressurization from a reactor vent), and determine the average concentration for the aggregated stream. We are interested in data for a situation where one emission episode has a concentration above 50 ppmv, but all other emission episodes released from the same point, and the combined stream for the emission point, have concentrations below 50 ppmv. We are interested in rationale supporting the choice of either of the presented approaches or any other approach.

We are requesting comments on the definition of ''coating manufacturing'' in § 63.7985(b) of the proposed subpart HHHHH. It is not our intent to include end-users in the definition of manufacturers; however, several end-users have mixing operations similar to the activities of coating manufacturers with comparable HAP emissions. To address these operations, we are considering developing requirements for a separate class of coating manufacturers who produce the coating for captive use. We do not have data to show there is a floor for such operations, but we are evaluating the costs to control the emissions. We seek comments on costs to control emissions from, and an appropriate size cutoff for, such a class of manufacturers.

For both miscellaneous coating and organic chemical manufacturing facilities, the term ''cleaning operation'' is defined as in 40 CFR 63.1251 as ''routine rinsing, washing, or boil-off of equipment in batch operations between batches.'' As discussed in sections II.D and III.C, ''cleaning operations'' are considered to be part of the process in which the cleaning operations occur and are subject to the same requirements as any other process step. Cleaning the exterior of equipment is not considered to be part of the ''cleaning operations,'' and emissions from cleaning an existing portable vessel are not required to be controlled under the proposed rule. We are soliciting comments on the approach. Specifically, we are interested in information on cleaning procedures (*e.g.,* whether tanks have automatic wash systems and/or have to be washed by hand; whether tank lids or covers have to be taken off and remain off to gain and maintain access for workers), venting during cleaning, and any additional costs of controlling emissions during the cleaning step as part of the process.

3. What Comments Are We Soliciting on Standards That Overlap?

Compliance options for chemical manufacturing facilities subject to both the proposed subpart FFFF and another subpart are in 40 CFR 63.2535. Multipurpose equipment subject to standards under the proposed subpart FFFF may also be subject to standards under another rule. Such is the case with equipment leaks. To minimize the compliance burden, we have included provisions that allow you to comply only with the equipment leak provisions in the proposed subpart FFFF for all equipment subject to subparts GGG and MMM at a facility with an affected source under the proposed subpart FFFF. We are requesting comments on other areas where different standards may overlap, the difficulties posed by such overlapping standards, and ways to reduce the monitoring, recordkeeping, and reporting burden of complying with the requirements of the proposed subpart and another subpart.

4. What Comments Are We Soliciting on Pollution Prevention?

We are soliciting comments on the pollution prevention alternative standard for miscellaneous organic

chemical manufacturing in proposed subpart FFFF. The pollution prevention standard uses the same format as the standard in 40 CFR part 63, subpart GGG. We especially seek information on alternative measures of source reduction and pollution prevention. Note that since the TRE for continuous vents is applied after the last recovery device, pollution prevention is already incorporated into the standard for continuous processes.

No such pollution prevention alternative is currently proposed for coating manufacturers; however, since the proposed rule for coating manufacturers does not apply to coatings that contain less than 5 percent HAP, reformulation is a possible pollution prevention alternative. We are soliciting information and comments on pollution prevention alternatives for coating manufacturers.

5. What Comments Are We Soliciting on Testing?

Subpart GGG contains testing requirements that differ depending on the amount of HAP treated; for example, if a control device receives less than 10 tons per year HAP, then a performance test is not required. We are considering similar requirements for miscellaneous organic chemical manufacturing facilities. We seek information on practicable testing procedures for batch processes and comments on testing provisions in subpart FFFF.

6. What Comments Are We Soliciting on MACT Standards for Process Vessels at Coating Manufacturing Facilities?

The process vent standard for the proposed subpart HHHHH applies to each stationary process vessel greater than 250 gallons. The standard for stationary vessels includes the work practice standards for closed vent systems as required in 40 CFR part 63, subpart SS. We are requesting comments and data on the types of vent systems used on process vessels to capture emissions from the vessels in coating manufacturing facilities with control devices; the costs associated with the installation of such systems; and any problems encountered where closed vent systems are in use, for example, involving worker health and safety issues; the ability to capture all emissions from the vessel; drawing out and evaporating solvents from the coating mix in the vessel, thereby affecting product; and interfering with the ability to add raw material to the vessels.

We are requesting comments on alternative formats for the standard that applies to stationary process vessels in proposed subpart HHHHH, such as a standard that applies to all processing vessels as a whole instead of each vessel individually. In considering alternatives, we will examine other formats to ensure that compliance can adequately be demonstrated and acceptable records can be maintained. Further, we are requesting information on the application, effectiveness, and cost of alternative control technologies or approaches for process vessels.

As already noted, the emission reduction requirements in the proposed subpart HHHHH represent an overall HAP control efficiency for the process vessel. Overall control includes capture efficiency of emissions from the process vessels' vented cover or lid through the closed vent system and the recovery or destruction efficiency of the control device. We seek comments on demonstrating compliance for overall control of HAP from process vessels.

The cost of the standard for stationary process vessels is based on several assumptions. The representative control technology is refrigerated condensation. For sizing purposes, we assumed no more than five vessels would be filled simultaneously. The modeled vent stream was saturated with toluene. The flowrate was assumed to be 100 scfm. The cost of the refrigeration units were estimated using the model developed for the Office of Air Quality Planning and Standards. We are requesting comments and information on these assumptions and model, the characteristics of vent streams from process vessels, and the costs associated with the proposed standards.

7. What Comments Are We Soliciting on Explosives Production?

As discussed in section III.A., we are soliciting comments on whether process vent emissions from explosives production processes should be treated as a separate class of emission streams subject to a lesser degree of control than that required for process vents from other types of processes in the source category. For example, we are specifically soliciting comments on the performance achievable and costs associated with using condensers, although we are also interested in information about other types of controls. One option we are considering is control based on the use of condensers operated at the default temperatures that are being proposed for coatings manufacturing, and we are soliciting comments on whether these default values (or others) would be appropriate for some or all of the processes in the explosives production industry. If we do develop standards for process vents from explosives manufacturing as a separate class of process vents within the source category, we need to be able to clearly define the affected processes. Because explosives are often referred to as ''energetics,'' we are considering using this term to define the class of processes, and we are soliciting comments on what the definition of ''energetics'' should be.

8. What Comments Are We Soliciting on the Emission Estimates for Coating Manufacturing?

We are requesting data and information on HAP emissions from process vessels and other process units at coating manufacturing facilities. The AP–42 emission factor for paint manufacturing is 30 pounds of volatile organic compounds (VOC) per ton of product. The AP–42 has an emission loss factor of between 1 percent and 2 percent for paint mixing operations. We used 1 percent of the total HAP throughput at the facility to determine the uncontrolled HAP emissions from process vessels. The industry has stated their preference to base HAP emission calculations on the ''Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities'' chapter of ''Stationary Point Source Emission Inventory Development'' prepared as part of the Emission Inventory Improvement Program (EIIP). The EIIP is a jointly sponsored effort of the State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials (STAPPA/ALAPCO) and EPA with the stated goal to provide cost-effective and reliable inventories. The preferred method is the use of emission models, and alternative methods are the use of emission factors, material balances, and test data. We believe that emission factors and material balances apply more to an entire process, emission models and test data apply most often to only a step in the process and therefore may not account for all losses. To develop a valid estimate of uncontrolled (or baseline) emissions using the emission models for material loading, heat-up, surface evaporation, and vessel cleaning, we would need to obtain a considerable amount of additional data. For example, we would need to know the typical number of vessels through which the material travels in production processes, the temperature of heat-up and the number or percentage of processes that have a heat-up step, the number of batches per year, the frequency of cleaning, and the volume of material used in cleaning. Material

balances, however, by their very nature, account for all losses. Other, more resource-intensive methods, also can account for all losses. For example, losses from process vessels and equipment leaks from equipment enclosed in a building could be estimated if the building exhaust concentration and flows could be measured accurately. However, a material balance would be easier to do, since input data such as accounting records and material product specifications are presumably already available. Therefore, we believe that an emission estimating procedure that has been validated with material balance data will provide the most accurate method for estimating emissions. Without material balance data or other more robust methods, we think that the AP–42 emission factor best estimates total HAP emissions and gives results most consistent with the definition of major source in section 112(a) of the CAA as well as in § 63.2 of 40 CFR part 63, subpart A.

We are soliciting comments on the foregoing approaches, and because we do not have the necessary information for the coatings industry to use more robust methods, we are requesting data and information on HAP emissions from process vessels and other operational units at coating manufacturing facilities as well as mass balance data to help us develop more representative emissions factors, including factors specific to this industry.

9. What Comments Are We Soliciting on the MACT Standard for Equipment Leaks at Coating Manufacturing Facilities?

Equipment leak HAP emissions from coating manufacturing were estimated using the same emission factors used for organic chemical manufacturing because we lacked initial leak frequency data. Without industry specific leak rate data, we have no basis for using anything other than the AP–42 emission factor for equipment leaks. Therefore, we are soliciting initial leak frequency data to help us develop emission factors for equipment leaks in coating manufacturing operations.

In light of the paucity of leak data from coating manufacturing operations, we are considering providing an alternative to compliance with the HON-equivalent equipment leak requirements in the proposed subpart HHHHH. The alternative would reduce emissions beyond the floor level of control by requiring covers on all process vessels. Instead of complying with the leak detection and repair (LDAR) program in 40 CFR part 63 subpart UU, which is similar to the HON requirements, the owner or operator would choose to comply with the MACT floor (a sensory LDAR program as required in 40 CFR part 63, subpart R) and cover all open process vessels at the affected facility (*i.e.,* including all vessels equal to or smaller than 250 gallons that are not subject to the requirements for process vessels). Under this alternative, we envision an LDAR work practice standard that requires the following: (1) Performing a monthly leak inspection of all equipment in HAP service, using detection methods incorporating sight, sound, and smell; (2) inspections that are conducted during periods when the process is operating; (3) initial attempts at repair are made no later than 5 days after leak detection, and repairs be completed within 15 days of leak detection, unless delay of repair is allowed based on a demonstration that repair in this time period is not feasible; and (4) all portable and stationary process vessels with a capacity less than or equal to 250 gallons are equipped with a cover or lid that must be in place at all times when the vessel contains a HAP. The covers or lids could be of solid or flexible construction, provided they stay in place. To demonstrate initial compliance, you would be required to maintain a log with a list of the equipment, a diagram, or some other means of identifying the number of components and their location, and you would be required to note in your Notification of Compliance Status that you have the required covers for the small process vessels. To demonstrate continuous compliance, you would be required to record in the log the identity of the leaking components (either individually or by area), the date of leak detection, and the date of repair, and you would be required to sign the log book after each inspection to verify completion and accuracy. This alternative, including both the sensory LDAR program and the requirement to cover vessels less than 250 gallons, would go in entry 1. in Table 4 as an alternative work practice standard for each piece of equipment that is in organic HAP service and is not described in 40 CFR 63.1019(c) through (e). We are requesting information on the effectiveness and cost of covering all tanks less than or equal to 250 gallons. Information that would assist us in estimating the effectiveness of this alternative includes types of flexible covers used by the industry, industry practice of using covers on small vessels, cost of covers, and the typical number of small process vessels relative to the total number of process vessels (or relative to the number of process vessels greater than 250 gallons) at a facility.

We are soliciting comments and data on both control alternatives. Whether we promulgate one of the two alternatives or both alternatives will depend on the comments and data we receive and the results of the regulatory impact analysis.

10. What Comments Are We Soliciting on Coordination of MACT Standards Affecting the Coating Industry?

As discussed in III.H., we recognize that coating manufacturers may have to change their production processes in response to demands for different products that will comply with the MACT standards for surface coating application. We intend to coordinate the promulgation of subpart HHHHH and the coating application rules to the extent possible, recognizing that we must promulgate all MACT standards by May 2002. Therefore, we are soliciting comments on ways to coordinate the timing of these rules.

11. What Comments Are We Soliciting on Wastewater Standards for Organic Chemical Manufacturing?

Representatives of the chemical industry have suggested that it would be more appropriate to regulate wastewater streams containing mostly or entirely soluble HAP compounds differently than streams containing significant amounts of partially soluble compounds. They have submitted examples of wastewater streams that do not volatilize appreciably while in open sewer lines en route to the biological treatment unit, and suggest that EPA either establish an alternative floor of open sewer lines and biological treatment for this subcategory of wastewater streams, or not require closed conveyance for such streams.

We are soliciting comments and data concerning wastewater streams containing only soluble HAP (less than 50 ppmw partially soluble HAP) that would be subject to the proposed rule to determine whether they represent a separate class of wastewater (or processes from which the streams originate) as compared to HON wastewater. The data should include stream flow volume, stream HAP concentrations, stream temperature at the point of determination, control option currently used to treat the stream, and whether the lines or sewer system used to convey the stream is closed or open.

The HON requires that the sewer system conveying an affected

wastewater stream be closed. We understand from the industry that most sources have complied with the HON by installing steam strippers at the process so the existing sewer system did not have to be retrofitted down to the biological treatment unit. We are requesting owners and operators of processes covered by the proposed rule to comment on the installation of steam strippers at the process.

We are also requesting information on unit operations that remove methanol or other soluble HAP from wastewater as efficiently as the design steam stripper in the HON.

12. What Comments Are We Soliciting on Process Change Management?

We are soliciting information on process change management as it relates to title V permits. The 40 CFR part 70 regulations allow the source to account for operating scenarios the source owner or operator reasonably anticipates over the source of the permit term, without need for permit revision (40 CFR 70.6(a)(9)). Change management strategy is discussed in detail in the preamble to the promulgated NESHAP for Pharmaceuticals Production (63 FR 50309, September 21, 1998). We are soliciting comments on change management and especially change management for owners and operators complying with the proposed alternative standard that limits the outlet concentration of the control device.

IV. Summary of Environmental, Energy, and Economic Impacts

A. Miscellaneous Organic Chemical Manufacturing

The basis for the estimated impacts for existing sources subject to the proposed NESHAP is discussed in a series of memoranda in the docket.

1. What Are the Air Quality Impacts?

We estimated nationwide baseline HAP emissions from the Miscellaneous Organic Chemical Manufacturing source category to be 44,700 Mg/yr (49,300 tons/yr). We estimated that the proposed standards in subpart FFFF will reduce HAP emissions by about 28,000 Mg/yr (31,000 tons/yr). Because many of the HAP emitted by miscellaneous organic chemical manufacturing facilities are also VOC, the proposed NESHAP also will reduce VOC.

Combustion of fuels in combustion-based control devices and to generate electricity and steam would increase secondary emissions of CO, NO_X, SO_2, and particulate matter less than 10 microns in diameter (PM_{10}). We estimate that these emissions would increase by about 1,270 Mg/yr (1,400 ton/yr). These impacts were estimated assuming electricity is generated in coal-fired power plants, steam is produced in natural gas-fired industrial boilers, and natural gas is used as the auxiliary fuel in incinerators and flares.

2. What Are the Cost Impacts?

The cost impacts include the capital cost to install control devices and monitoring equipment, and include the annual costs involved in operating control devices and monitoring equipment, implementing work practices, and conducting performance tests. The annual cost impacts also include the cost savings generated by reducing the loss of product or solvent in the form of emissions. The total capital costs for existing sources are estimated to be $122 million, and the total annual costs for existing sources are estimated to be $75 million.

We estimate that in the first 3 years after the effective date of subpart FFFF that the annual cost burden will average $3,200/yr per respondent for monitoring, recordkeeping, and reporting requirements for an estimated 251 sources. Most of these costs are for new and reconstructed sources that must be in compliance upon startup; other costs are for existing sources to prepare initial notifications and plans. In the 4th year after the effective date, existing facilities must begin to monitor and record operating parameters to comply with operating limits and prepare compliance reports, which will significantly increase the nationwide annual burden.

We expect that the actual compliance cost impacts of the proposed NESHAP will be less than described above because of the potential to use common control devices, upgrade existing control devices, implement emissions averaging, or comply with the alternative standard. Because the effect of such practices is highly site-specific and data were unavailable to estimate how often the lower cost compliance practices could be utilized, we could not quantify the amount by which actual compliance costs will be reduced.

3. What Are the Economic Impacts?

The economic impact analysis shows that the expected price increase for affected output would be 0.5 percent as a result of the proposed NESHAP for miscellaneous organic chemical manufacturers. The expected change in production of affected output is a reduction of 0.3 percent as a result of the proposed NESHAP. There is one plant closure expected out of the 207 facilities affected by the proposed NESHAP. It should be noted that the baseline economic conditions of the facility predicted to close affect the closure estimate provided by the economic model, and that the facility predicted to close appears to have low profitability levels currently. Therefore, it is likely that there is no adverse impact expected to occur for those industries that produce miscellaneous organic chemicals affected by the proposed NESHAP, such as soaps and cleaners, industrial organic chemicals, and agricultural chemicals.

4. What Are the Nonair Quality Health, Environmental, and Energy Impacts?

With the assumption that overheads from steam stripping will be recoverable as material or fuel, no solid waste is expected to be generated from steam stripping of wastewater streams. No solid waste is expected to be generated from controls of other emission points. We expect the overall energy demand (i.e., for auxiliary fuel in incinerators, electricity generation, and steam production) to increase by an estimated 8.8 million gigajoules per year (GJ/yr) (8.37 trillion British thermal units per year (Btu/yr)).

B. Miscellaneous Coating Manufacturing

1. What Are the Air Quality Impacts?

We estimated nationwide baseline HAP emissions from the Miscellaneous Coating Manufacturing source category to be 7,800 Mg/yr (8,600 tons/yr). We estimated that the proposed standards in subpart HHHHH will reduce HAP emissions by about 5,670 Mg/yr (6,250 tons/yr). Because many of the HAP emitted by miscellaneous coating manufacturing facilities are also VOC, the proposed NESHAP also will reduce VOC.

Combustion of fuels to generate electricity and steam would increase secondary emissions of CO, NO_X, SO_2, and PM_{10}. We estimate that these emissions would increase by about 34 Mg/yr (37 ton/yr). These impacts were estimated assuming electricity is generated in coal-fired power plants and steam is produced in natural gas-fired industrial boilers.

2. What Are the Cost Impacts?

The cost impacts include the capital cost to install control devices and monitoring equipment, and it includes the annual costs involved in operating control devices and monitoring equipment, implementing work practices, and conducting performance tests. The annual cost impacts also

include the cost savings generated by reducing the loss of product or solvent in the form of emissions. The total capital costs for existing sources are estimated to be $57 million, and the total annual costs for existing sources are estimated to be $16 million.

We estimate that in the first 3 years after the effective date of the proposed subpart HHHHH that the annual cost burden will average $3,500/yr per respondent for monitoring, recordkeeping, and reporting requirements for an estimated 129 sources. Most of these costs are for new and reconstructed sources that must be in compliance upon startup; other costs are for existing sources to prepare initial notifications and plans. In the 4th year after the effective date, existing facilities must begin to monitor and record operating parameters to comply with operating limits, and they must prepare compliance reports. These activities will significantly increase the nationwide annual burden.

We expect that the actual compliance cost impacts of the proposed NESHAP will be less than described above because of the potential to use common control devices, upgrade existing control devices, implement emissions averaging, or comply with the preset temperature limits for condensers. Because the effect of such practices is highly site-specific and data were unavailable to estimate how often the lower cost compliance practices could be utilized, we could not quantify the amount by which actual compliance costs will be reduced.

3. What Are the Economic Impacts?

The economic impact analysis shows that the expected price increase for affected output would be 0.3 percent as a result of the proposed NESHAP for miscellaneous coating manufacturers. The expected change in production of affected output is a reduction of 0.1 percent as a result of the proposed NESHAP. There is one plant closure expected out of the 127 facilities affected by the proposed NESHAP. It should be noted that the baseline economic conditions of the facility predicted to close affect the closure estimate provided by the economic model, and that the facility predicted to close appears to have low profitability levels currently. Therefore, it is likely that there is no adverse impact expected to occur for those industries that produce output affected by the proposed NESHAP, such as paints, inks, and adhesives.

4. What Are the Nonair Quality Health, Environmental, and Energy Impacts?

We do not expect solid waste to be generated from controlling HAP emissions from miscellaneous coating manufacturing facilities. If a facility elects to control wastewater using a steam stripper, we expect that overheads from steam stripping will be recoverable as material or fuel, and that no solid waste would be generated. No solid waste is expected to be generated from controls of other emission points.

We expect the overall energy demand (*i.e.*, for electricity generation and steam production) to increase by an estimated 43,200 GJ/yr (41.0 billion Btu/yr).

V. Administrative Requirements

A. Executive Order 12866, Regulatory Planning and Review

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

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

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

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

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

Pursuant to the terms of Executive Order 12866, the EPA has submitted this action to OMB for review. Changes made in response to suggestions or recommendations from OMB will be documented and included in the public record.

B. 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'' is 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.''

Today's proposed rules do not have federalism implications. They 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 because State and local governments do not own or operate any sources that would be subject to the proposed NESHAP. Thus, the requirements of section 6 of the Executive Order do not apply to the proposed NESHAP.

C. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' ''Policies that have tribal implications'' are defined in the Executive Order to include regulations that have ''substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes.''

The proposed rules do not have tribal implications. They will 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, as specified in Executive Order 13175. No tribal governments own or operate miscellaneous organic chemical manufacturing process units or miscellaneous coating operations. Thus, Executive Order 13175 does not apply to these proposed rules.

D. Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that

EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives that EPA considered.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. Today's proposed NESHAP are not subject to the Executive Order because they are based on technology performance, not health or safety risks. Furthermore, the proposed NESHAP have been determined not to be ''economically significant'' as defined in Executive Order 12866.

E. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures by State, local, and tribal governments, in aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least-costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the proposed NESHAP do not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual costs of the Miscellaneous Organic Chemical Manufacturing and the Miscellaneous Coating Manufacturing NESHAP for any year have been estimated to be less than $75 million and $16 million, respectively. Thus, today's proposed NESHAP are not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that the proposed NESHAP contain no regulatory requirements that might significantly or uniquely affect small governments because they contain no requirements that apply to such governments or impose obligations upon them. Therefore, today's proposed NESHAP are not subject to the requirements of section 203 of the UMRA.

F. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

The 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 will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's proposed subparts FFFF and HHHHH on small entities, small entity is defined as: (1) A small business ranging from up to 500 employees to up to 1,000 employees, depending on the NAICS code, (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. The table below presents the threshold for small businesses by NAICS code.

Category	NAICS codes	Maximum number of employees to be considered a small business
Manufacturing.	325110, 325120 325193, 325199 325212, 325221 325222, 325311	1000
	325132, 325192 325211, 325411 325412, 325611 325920	750
	325191, 325312 325314, 325320 325413, 325414 325510, 325520 325612, 325613 325620, 325910 325991, 325992 325998	500

After considering the economic impacts of today's proposed subparts FFFF and HHHHH on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities.

In accordance with the RFA, EPA conducted an assessment of the proposed standards on small businesses within the industries affected by the proposed NESHAP. Based on SBA size definitions for the affected industries and reported sales and employment data for the Miscellaneous Coating Manufacturing source category, EPA identified as small businesses 32 of the 58 companies owning affected coating manufacturing facilities. This constitutes 55 percent of the affected businesses. Although small businesses represent 55 percent of the companies within the source category, they are expected to incur 24 percent of the total industry compliance costs of $16 million. According to EPA's economic assessment, there are two small firms with compliance costs equal to or greater than 3 percent of their sales. In addition, there are five small firms with cost-to-sales ratios between 1 and 3 percent.

An economic impact analysis was performed to estimate the changes in product price and production quantities for the firms affected by the proposed subpart HHHHH. The analysis shows that of the 70 facilities owned by affected small firms, one is expected to shut down after the implementation of the proposed NESHAP.

The baseline economic condition of the facility predicted to close affects the closure estimate provided by the economic model. Facilities that are already experiencing adverse economic conditions will be more severely

impacted than those that are not. Our analysis indicates that the facility predicted to close currently has low profitability levels.

As for the Miscellaneous Organic Chemical Manufacturing source category, based on SBA size definitions for the affected industries and reported sales and employment data, EPA identified as small businesses 27 of the 113 companies owning affected miscellaneous organic chemical manufacturing facilities. This constitutes 24 percent of the affected businesses. Although small businesses represent 24 percent of the companies within the source category, they are expected to incur 6 percent of the total industry compliance costs of $75 million. According to EPA's economic assessment, there is one small firm with compliance costs equal to or greater than 3 percent of their sales. In addition, there are three small firms with cost-to-sales ratios between 1 and 3 percent.

An economic impact analysis was performed to estimate the changes in product price and production quantities for the firms affected by the proposed subpart FFFF. The analysis shows that of the 49 facilities owned by affected small firms, one is expected to shut down after the implementation of the proposed NESHAP.

It should be noted that the baseline economic condition of the facility predicted to close affects the closure estimate provided by the economic model, *i.e.*, facilities which are already experiencing adverse economic conditions will be more severely impacted than those that are not, and that the facility predicted to close appears to have low profitability levels currently.

In summary, this action will affect 59 companies, out of 171 affected companies, owning coating and organic chemical manufacturing facilities as small businesses. Small firms will incur approximately $8.3 million of the total industry compliance costs of $91 million. A total of three small firms will have compliance costs equal to or greater than 3 percent of their sales, and eight small firms will have cost-to-sales ratios between 1 and 3 percent. Two facilities owned by affected small firms are expected to shut down after the implementation of this action.

Although the proposed NESHAP will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to limit the impact of the proposed NESHAP on small entities. We have worked closely with the National Paint and Coatings Association, the National Association of Printing Ink Manufacturers, the Adhesives and Sealants Council, the American Chemical Council, and the Synthetic Organic Chemical Manufacturers Association. These trade organizations, which represent the majority of facilities covered by these subparts, have represented their members at stakeholder meetings throughout the standards development process. We worked with the coating manufacturers to minimize the overlap of MACT standards and coordinate subpart HHHHH with MACT standards for coating applications. We worked with the small chemical manufacturers to develop a format for the process vent standard that is reasonable for the production of chemicals using batch processing in nondedicated equipment. We provide several alternative ways to comply with the standards to allow as much flexibility as possible. Emissions averaging and the pollution prevention alternative standards help those small entities that have been proactive in reducing their HAP emissions and usage, respectively. Another alternative standard requires the outlet concentration of the control device to be less than 20 ppmv. Under this alternative, recordkeeping and reporting requirements are greatly reduced. In addition, we have included in the preamble guidance for Part 70 requirements to minimize Title V permit modifications for owners and operators that make frequent changes to their processes. We continue to be interested in the potential impacts of the proposed NESHAP on small entities and welcome comments on issues related to such impacts.

G. Paperwork Reduction Act

The information collection requirements in the proposed NESHAP will be submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The EPA has prepared two ICR documents (ICR Nos. 1969.01 and 1971.01), one for proposed subpart FFFF and the other for proposed subpart HHHHH, and copies may be obtained from Sandy Farmer by mail at the Office of Environmental Information, Collection Strategies Division (2822), U.S. EPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, by email at *farmer.sandy@epa.gov,* or by calling (202) 260–2740. Copies may also be downloaded off the internet at *http://www.epa.gov/icr.* The information requirements are not effective until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA's policies set forth in 40 CFR part 2, subpart B.

Both proposed NESHAP would require maintenance inspections of the control devices but would not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The average annual monitoring, reporting, and recordkeeping burden per respondent for these collections (averaged over the first 3 years after the effective date of the NESHAP) is estimated to be 72 labor hours per year at a cost of $3,200 for proposed subpart FFFF, and 79 labor hours per year at a cost of $3,500 for proposed subpart HHHHH. These estimates include one-time submissions of notifications and precompliance reports; preparation of a startup, shutdown, and malfunction plan with semiannual reports for any event when the procedures in the plan were not followed; preparation of semiannual compliance reports; and recordkeeping. Total annualized capital/startup costs associated with the monitoring requirements for the 3-year period of the ICR are estimated at $256,000/yr for proposed subpart FFFF and $10,000/yr for proposed subpart HHHHH. Average operation and maintenance costs associated with the monitoring requirements for the 3-year period are estimated at $92,000/yr for proposed subpart FFFF and $34,000/yr for proposed subpart HHHHH.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of

information; and transmit or otherwise disclose the information.

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 are listed in 40 CFR part 9 and 48 CFR chapter 15.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, Collection Strategies Division; U.S. EPA (2822); 1200 Pennsylvania Ave., N.W., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., NW., Washington, DC 20503, marked ''Attention: Desk Officer for EPA.'' Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after April 4, 2002, a comment to OMB is best assured of having its full effect if OMB receives it by May 6, 2002. The final rule will respond to any OMB or public comment on the information requirements contained in this proposal.

H. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. 104–113) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

This proposed rulemaking involves technical standards. The EPA proposes in this rule to use EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2G, 2F, 3, 3A, 3B, 4, 15, 18, 25, 25A, 305, 316, 320, 624, 625, 1624, 1625, 8260, and 8270. Consistent with the NTTAA, the EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. The search and review results have been documented and placed in the docket for these NESHAP (Docket A–96–04). The search for emissions monitoring procedures for measuring emissions of the HAP or surrogates subject to emission limitations in these NESHAP identified 19 voluntary consensus standards that appeared to have possible use in lieu of EPA standard reference methods. However, after reviewing the available standards, EPA determined that 13 of the candidate consensus standards would not be practical due to lack of equivalency, documentation, and validation data. The 13 standards are: ASME C00031 or Performance Test Code 19–10–1981, ASTM D3154–91 (1995), ASTM D3464–96, ASTM D3796–90 (1998), ASTM D5835–95, ASTM D6060–96, ASTM E337–84 (Reapproved 1996), CAN/CSA Z2232.2–M–86, European Norm (EN) 12619 (1999), EN 1911–1,2,3 (1998), ISO 9096:1992, ISO 10396:1993, and ISO 10780:1994. Of the six remaining candidate consensus standards, the following five are under development or under EPA review: ASME/BSR MFC 12M, ASME/BSR MFC 13m, ASTM D5790–95 (1995), ISO/DIS 12039, and ISO/FDIS 14965. The EPA plans to follow, review, and consider adopting these candidate consensus standards after their development and further review by EPA is completed.

One consensus standard, ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS), is appropriate in the cases described below for inclusion in these NESHAP in addition to the currently available EPA Method 18 codified at 40 CFR part 60, appendix A. Similar to EPA's performance based Method 18, ASTM D6420–99 is also a performance based method for measurement of gaseous organic compounds. However, ASTM D6420–99 was written to support the specific use of highly portable and automated GC/MS. While offering advantages over the traditional Method 18, the ASTM method does allow some less stringent criteria for accepting GC/MS results than required by Method 18. Therefore, ASTM D6420–99 (Docket A–96–04) is a suitable alternative to Method 18 where the target compound(s) are those listed in Section 1.1 of ASTM D6420–99 (Docket citation of table); and the target concentration is between 150 ppb(v) and 100 ppm(v).

For target compound(s) not listed in Table 1.1 of ASTM D6420–99, but potentially detected by mass spectrometry, the regulation specifies that the additional system continuing calibration check after each run, as detailed in Section 10.5.3 of the ASTM method, must be followed, met, documented, and submitted with the data report even if there is no moisture condenser used or the compound is not considered water soluble.

As a result, EPA proposes to incorporate by reference (IBR) ASTM 6420–99 into 40 CFR 63.14 for application with these subparts FFFF and HHHHH of part 63. The EPA will also cite Method 18 as a gas chromatography (GC) option in addition to ASTM D6420–99. This will allow the continued use of other GC configurations.

The EPA takes comment on proposed compliance demonstration requirements proposed in this proposed rulemaking and specifically invites the public to identify potentially-applicable voluntary consensus standards. Commenters should also explain why this regulation should adopt these voluntary consensus standards in lieu of EPA's standards. Emission test methods and performance specifications submitted for evaluation should be accompanied with a basis for the recommendation, including method validation data and the procedure used to validate the candidate method (for other than Method 301, 40 CFR part 63, appendix A, was used).

Table 9 of the proposed subpart FFFF and Table 8 of the proposed subpart HHHHH list the EPA testing methods and performance standards included in the proposed regulations. Most of the standards have been used by States and industry for more than 10 years. Nevertheless, under § 63.7(f), the proposal also allows any State or source to apply to EPA for permission to use an alternative method in place of any of the EPA testing methods or performance standards listed in the proposed NESHAP.

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

These rules are not subject to Executive Order 13211, (66 FR 28355, May 22, 2001) because they are not significant regulatory actions under Executive Order 12866.

List of Subjects in 40 CFR Part 63

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

Dated: February 20, 2002.

Christine Todd Whitman,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 63, of the Code of the 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 FFFF to read as follows:

Subpart FFFF—National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing

Sec.

Subpart FFFF—National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing

What this Subpart Covers

§ 63.2430 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

§ 63.2435 Am I subject to the requirements in this subpart?

(a) You are subject to the requirements in this subpart if you own or operate miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of hazardous air pollutants (HAP) emissions as defined in section 112(a) of the Clean Air Act (CAA).

(b) An MCPU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process, as defined in § 63.2550, that satisfies all of the conditions specified in paragraphs (b)(1) through (3) of this section. An MCPU also includes any associated storage tanks for feedstocks and recovered solvents; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that are used to manufacture any material or family of materials described in paragraphs (b)(1)(i) through (v) of this section. You must assign

storage tanks to the MCPU according to the provisions contained in § 63.2440(c).

(1) The material or family of materials is described in paragraph (b)(1)(i), (ii), (iii), (iv), or (v) of this section.

(i) An organic chemical or chemicals classified in SIC code 282, 283, 284, 285, 286, 287, 289, or 386, except as provided in paragraph (c)(3) of this section.

(ii) An organic chemical or chemicals classified in NAICS Code 3251, 3252, 3253, 3254, 3255, 3256, or 3259, except for NAICS Codes 325351 and 325181 and as provided in paragraph (c)(3) of this section.

(iii) Quaternary ammonium compounds and ammonium sulfate produced with caprolactam.

(iv) Hydrazine.

(v) Organic solvents recovered using nondedicated solvent recovery devices.

(2) It processes, uses, or produces HAP.

(3) Except for process vents from batch operations within a chemical manufacturing process unit (CMPU), as identified in § 63.100(j)(4), it is not part of an affected source under another subpart of this part 63. For this situation, the MCPU is the same as the CMPU as defined in § 63.100. For these MCPU, you are subject only to the requirements for batch process vents in this subpart.

(c) The requirements in this subpart do not apply to the operations specified in paragraphs (c)(1), (2), and (3) of this section.

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

(2) Any MCPU that manufactures ammonium sulfate as a by-product, if the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less (or 10 ppmw benzene or less). You must retain information, data, and analysis to document the HAP concentration in the entering slurry in order to claim this exemption.

(3) The production of coatings including, but not limited to, inks, paints, and adhesives that are manufactured solely by mixing and that are part of an affected source under subpart HHHHH of this part 63.

§ 63.2440 What parts of my plant do the requirements in this subpart cover?

(a) This subpart applies to each new, reconstructed, or existing miscellaneous organic chemical manufacturing affected source.

(b) The miscellaneous organic chemical manufacturing affected source is the facilitywide collection of MCPU and associated ancillary equipment such as heat exchange systems, waste water and waste management units, and transfer operations that are associated with manufacturing materials described in § 63.2435(b)(1).

(c) You must consider storage tanks to be part of the MCPU if either the input to the storage tank from the miscellaneous organic chemical manufacturing process (either directly or through other storage tanks assigned to the MCPU) is greater than or equal to the input from any other process, or the output from the storage tank to the miscellaneous organic chemical manufacturing process (either directly or through other storage tanks assigned to the MCPU) is greater than or equal to the output to any other process. If the greatest input to and/or output from a shared storage tank is the same for two or more processes, including at least one miscellaneous organic chemical manufacturing process, you may assign the storage tank to any process unit that has the greatest input or output. If the use varies from year to year, then you must base the determination on the utilization that occurred during the year preceding [date of publication of final rule] or, if the storage tank was not in operation during that year, you must base the use on the expected use for the first 5-year period after startup. You must include the determination in the Notification of Compliance Status specified in § 63.2515(e).

(d) An affected source is a new affected source if you commenced construction of the affected source after April 4, 2002, and you meet the applicability criteria at the time you commenced construction.

(e) An MCPU dedicated to manufacturing a single material (or concurrent production of multiple materials) is a new affected source if the MCPU has the potential to emit 10 tons per year of any one HAP or 25 tons per year of combined HAP, and you commenced construction of the MCPU after April 4, 2002.

(f) An affected source is reconstructed if you commenced reconstruction as defined in § 63.2 after April 4, 2002, except that the phrase ''affected or previously unaffected stationary source'' in § 63.2 shall mean ''affected source'' for the purposes of this subpart.

(g) An MCPU that is a major source in and by itself and is dedicated to manufacturing a single material (or concurrent production of multiple materials) is reconstructed if you commenced reconstruction as defined in § 63.2 after April 4, 2002, except that the phrase ''affected or previously unaffected stationary source'' in § 63.2 means ''MCPU'' for the purposes of this subpart.

(h) An MCPU that is also a CMPU under § 63.100 is reconstructed for the purposes of this subpart if, and only if, the CMPU meets the requirements for reconstruction in § 63.100(l)(2).

(i) An affected source is existing if it is not new or reconstructed.

§ 63.2445 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you startup your new or reconstructed affected source before the effective date of this subpart, then you must comply with the requirements for new and reconstructed sources in this subpart no later than the effective date of the subpart.

(2) If you startup your new or reconstructed affected source after the effective date of this subpart, then you must comply with the requirements for new and reconstructed sources in this subpart upon startup of your affected source.

(b) If you have an existing affected source on the effective date, you must comply with the requirements for existing sources in this subpart no later than the date 3 years after the effective date of this subpart. If you add equipment to your existing affected source after the effective date and before the date 3 years after the effective date, you must comply with the requirements for existing sources in this subpart no later than the date 3 years after the effective date of this subpart for the added equipment.

(c) If you add equipment to your existing affected source after the date 3 years after the effective date, you must comply with the requirements for existing sources in this subpart upon startup of the added equipment.

(d) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, you must comply with the requirements in paragraphs (d)(1) and (2) of this section.

(1) Any portion of the existing facility that is a new affected source or a reconstructed source must be in compliance with the requirements for new and reconstructed sources in this subpart upon startup.

(2) All other parts of the source must be in compliance with the requirements for existing sources in this subpart by the date 1 year after the date the area source becomes a major source.

(e) You must meet the notification requirements in § 63.2515 according to the schedule in § 63.2515 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limitations and work practice standards in this subpart.

Emission Limitations and Work Practice Standards

§ 63.2450 What emission limitations and work practice standards must I meet?

(a) You must meet each emission limitation and work practice standard in Tables 1 through 7 of this subpart that applies to you as specified in paragraphs (a)(1) through (7) of this section.

(1) Table 1 of this subpart specifies emission limitations and work practice standards for continuous process vents.

(2) Table 2 of this subpart specifies emission limitations and work practice standards for batch process vents.

(3) Table 3 of this subpart specifies emission limitations and work practice standards for wastewater streams, waste management units, and liquid streams in open systems within an MCPU.

(4) Table 4 of this subpart specifies emission limitations and work practice standards for storage tanks.

(5) Table 5 of this subpart specifies work practice standards for equipment leaks, closed-vent systems, and heat exchange systems.

(6) Table 6 of this subpart specifies emission limitations and work practice standards for transfer operations.

(7) Table 7 of this subpart specifies emission limitations for halogenated vent streams that are controlled with a combustion device.

(b) You must determine the total resource effectiveness value for each continuous process vent using the procedures described in § 63.2460(a).

(c) If an emission stream contains halogen atoms, you must determine whether it meets the definition of a halogenated stream using the procedures specified in § 63.2460(b).

(d) You must either designate a wastewater stream as an affected wastewater stream or determine that it is an affected wastewater stream using the procedures specified in § 63.2460(c).

(e) You must meet each operating limit for control devices, recovery devices, and wastewater treatment units in Table 8 of this subpart that applies to you.

(f) All emission limitations, operating limits, and work practice standards in Tables 1 through 8 of this subpart apply to new, reconstructed, and existing sources, unless limited to specific sources within the tables.

(g) As provided in § 63.6(g), you may apply to EPA for approval to use an alternative to an emission limitation or work practice standard in Tables 1 through 8 of this subpart.

(h) Opening of a safety device, as defined in § 63.2550, is allowed at any time conditions require to avoid unsafe conditions.

(i) The emission limitations in Table 4 of this subpart for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limitation specified in Table 4 of this subpart, must not exceed 240 hours per year.

General Compliance Requirements

§ 63.2455 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(1) During the period, if any, between the compliance date specified for your affected source in § 63.2445 and the date upon which continuous monitoring systems have been installed and validated and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(2) [Reserved].

(c) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

(d) If you use a boiler or process heater to comply with an emission limitation, then the vent stream must be introduced into the flame zone of the boiler or process heater.

(e) After you treat an affected wastewater stream or residual removed from an affected wastewater stream, it is no longer subject to this subpart.

(f) You are not required to conduct a performance test or design evaluation when you use any of the units specified in paragraphs (f)(1) through (4) of this section to meet emission limitations specified in § 63.2450. You also are exempt from the continuous compliance, recordkeeping, and reporting requirements specified in §§ 63.2485 through 63.2530 for any of these units. This exemption applies to units used as control devices or wastewater treatment units.

(1) A hazardous waste incinerator that has been issued a final permit under 40 CFR part 270 and that complies with the requirements of 40 CFR part 264, subpart O, or that has certified compliance with the interim status requirements of 40 CFR part 265, subpart O;

(2) A boiler or process heater with a design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater;

(3) A boiler or process heater into which the vent stream is introduced with the primary fuel or is used as the primary fuel; or

(4) A boiler or process heater burning hazardous waste that meets the requirements in paragraph (f)(4)(i) or (ii) of this section:

(i) The boiler or process heater has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or

(ii) The boiler or process heater has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(g) When this subpart requires the use of a control device, you may use either a single control device or any combination of control devices.

Testing and Initial Compliance Requirements

§ 63.2460 How do I determine whether vent streams and wastewater streams meet the applicability criteria?

(a) *Determine affected continuous process vents.* For each continuous process vent from an MCPU, you must determine the total resource effectiveness (TRE) index value as specified in § 63.115(d), except as specified in paragraphs (a)(1) and (2) of this section.

(1) When a TRE index value of 4.0 is referred to in § 63.115(d), TRE index values of 2.6 for existing sources and 5.0 for new and reconstructed sources apply for the purposes of this subpart.

(2) When § 63.115(d) refers to ''emission reductions specified in § 63.113(a),'' the emission limitations and work practice standards specified in Table 1 of this subpart apply for the purposes of this subpart.

(b) *Determine halogenated vent streams.* To determine whether an emission stream from a process vent, waste management unit, or transfer operation is halogenated, you must calculate the halogen atom levels as

specified in paragraphs (b)(1) and (2) of this section.

(1) For continuous process vents, calculate the mass emission rate of halogen atoms contained in the organic compounds according to the procedures in § 63.115(d)(2)(v).

(2) For emission streams from batch process vents, waste management units, and transfer operations, calculate the concentration of each organic compound containing halogen atoms in accordance with § 63.115(d)(2)(v)(A), multiply each concentration by the applicable number of halogen atoms in the organic compound, and sum the resulting halogen atom concentrations associated with each organic compound.

(c) *Determine affected wastewater streams.* For each wastewater stream that you generate, you must either designate the wastewater stream as an affected wastewater stream according to the procedures in paragraph (c)(1) of this section, or you must determine whether the wastewater stream is an affected wastewater stream according to the procedures in paragraph (c)(2) of this section. Each affected wastewater stream is subject to the requirements in Table 3 of this subpart.

(1) You may designate any wastewater stream to be an affected wastewater stream. You do not have to determine the concentration or flow rate for any designated affected wastewater stream.

(2) For wastewater streams that you do not designate as affected wastewater streams, you must use the procedures specified in § 63.144(b) and (c) to establish the concentrations and flow rates, except as specified in paragraphs (c)(2)(i) and (ii) of this section.

(i) The phrase ''Group 1 wastewater stream'' in § 63.144 means ''affected wastewater stream'' for the purposes of this subpart.

(ii) The phrase ''Group 2 wastewater stream'' means any wastewater stream that is not an affected wastewater stream for the purposes of this subpart.

§ 63.2465 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) If you have an existing affected source on the effective date of this subpart, you must conduct all initial compliance demonstrations required in Tables 10 through 16 of this subpart that apply to you prior to the date 3 years after the effective date.

(b) If you have a new affected source or a reconstructed source, you must conduct all initial compliance demonstrations required in Tables 10 through 16 of this subpart that apply to you no later than 180 calendar days after the applicable compliance date specified in § 63.2445(a). You must also comply with § 63.7(a)(2) for performance tests.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source, you must conduct all initial compliance demonstrations required in Tables 10 through 16 of this subpart that apply to you in accordance with the schedule specified in paragraphs (c)(1) and (2) of this section.

(1) For those parts of the source that are an existing affected source, you must conduct all initial compliance demonstrations prior to the date 1 year after the area source becomes a major source.

(2) For those parts of the source that are a new affected source or reconstructed source, you must conduct all initial compliance demonstrations no later than 180 calendar days after startup. You must also comply with § 63.7(a)(2) for performance tests.

(d) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

§ 63.2470 What performance tests, design evaluations, and other procedures must I use?

(a) You must conduct each performance test, design evaluation, and other procedure specified in Tables 10 through 16 of this subpart that applies to you.

(b) When you are required to calculate uncontrolled emissions from batch vents according to § 63.1257(d)(2)(i), use any applicable option except you may not calculate emissions from heating using Equation 13 of subpart GGG of this part, or emissions from depressurization using the procedures in § 63.1257(d)(2)(i)(C)(*1*) through (*4*).

(c) *Requirements for performance tests.* Each performance test must be conducted according to the requirements in § 63.7(e)(1), except that performance tests for HAP from batch process vents must be conducted according to paragraph (c)(3) of this section and not under normal operating conditions as specified in § 63.7(e)(1). Performance tests also must be conducted using the methods and procedures specified in Table 9 of this subpart and in paragraphs (c)(1) through (15) of this section.

(1) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(2) When you conduct a performance test for a control device used to control emissions from continuous process vents, you must conduct the test according to § 63.997.

(3) When you conduct a performance test for a control device used to control emissions from batch process vents, you must conduct the test according to § 63.1257(b)(8).

(4) When you conduct a performance test for a wastewater treatment unit or control device, you must conduct the test according to § 63.145.

(5) You do not have to conduct a performance test for any condenser, but you must have the results of continuous direct measurement of the condenser outlet gas temperature to be used in determining concentrations as part of the design evaluation specified in paragraph (d) of this section.

(6) If you elect to use Method 18 of 40 CFR part 60, appendix A, or ASTM D6420–99 (incorporated by reference as specified in § 63.14), to measure the percent reduction of HAP as specified in Table 9 of this subpart, you must conduct the performance test using the procedures in paragraphs (c)(6)(i) through (iii) of this section.

(i) In conducting the performance test, collect and analyze samples as specified in Method 18 or ASTM D6420–99. You must collect samples simultaneously at the inlet and outlet of the combustion device. If the performance test is for a combustion control device, you must first determine which HAP are present in the inlet gas stream (i.e., uncontrolled emissions) using process knowledge or the screening procedure described in Method 18. Quantify the emissions for the HAP present in the inlet gas stream for both the inlet and outlet gas streams for the combustion device.

(ii) Calculate the concentration and emission rate of total organic HAP (E_{HAP}) in the inlet and outlet vent streams using the equations in §§ 63.115(c)(3)(ii) and 63.116(c)(4)(ii).

(iii) Calculate the percent reduction in total organic HAP using the equation in § 63.116(c)(4)(iii).

(7) If you elect to use Method 25A of 40 CFR part 60, appendix A, to determine the percent reduction efficiency of a vent stream controlled in a noncombusion device as specified in Table 9 of this subpart, you must conduct the performance test in accordance with paragraphs (c)(7)(i) through (iv) of this section.

(i) Calibrate the instrument on the predominant HAP.

(ii) The results are acceptable if the response from the high level calibration gas is at least 20 times the standard deviation for the response from the zero calibration gas when the instrument is zeroed on its most sensitive scale.

(iii) Calculate the inlet and outlet concentrations of Total Organic Compound (TOC) per Section 8 of Method 25A. Calculate the emission rate of TOC (E_{TOC}) in the inlet and outlet vent streams using the equation in § 63.116(c)(4)(ii).

(iv) Calculate the percent reduction in TOC using the equation in § 63.116(c)(4)(iii).

(8) If you elect to use Method 18 of 40 CFR part 60, appendix A, or ASTM D6420–99 (incorporated by reference as specified in § 63.14), to measure the total concentration of HAP at the outlet of the control device, as specified in Table 9 of this subpart, you must conduct the performance test using procedures in paragraphs (c)(8)(i) and (ii) of this section.

(i) For a combustion control device, you must first determine which HAP are present in the inlet gas stream using process knowledge or the screening procedure described in Method 18. In conducting the performance test, analyze samples collected at the outlet of the combustion control device as specified in Method 18 or ASTM D6420–99 for the HAP compounds present at the inlet of the control device.

(ii) The total HAP concentration (C_{HAP}) is the sum of the concentrations of the individual HAP components and must be computed for each run using the equation in § 63.115(c)(3)(ii).

(9) If you elect to use Method 25A of 40 CFR part 60, appendix A, to measure the TOC concentration of the outlet vent stream as specified in Table 9 of this subpart, you must conduct the performance test using the procedures in paragraphs (c)(9)(i) through (iii) of this section.

(i) Calibrate the instrument on the predominant HAP.

(ii) Conduct the performance test in accordance with paragraphs (c)(9)(ii)(A) and (B) of this section as follows:

(A) The results are acceptable if the response from the high level calibration gas is at least 20 times the standard deviation for the response from the zero calibration gas when the instrument is zeroed on its most sensitive scale; and

(B) The span value of the analyzer must be less than 100 parts per million by volume (ppmv).

(iii) Report the results as carbon, calculated according to equation 25A–1 of Method 25A.

(10) If you elect to use Method 25 of 40 CFR part 60, appendix A, to determine the percent reduction of TOC of a vent stream controlled in a combustion device as specified in Table 9 of this subpart, you must conduct the performance test using the procedures in paragraphs (c)(10)(i) through (iii) of this section.

(i) Measure the total gaseous non-methane organic (TGNMO) concentration of the inlet and outlet vent streams using the procedures of Method 25, except that you may use Method 25A in lieu of Method 25 if the condition in either paragraph (c)(10)(i)(A) or (B) of this section is met.

(A) The concentration at the inlet to the control system and the required level of control are such to result in exhaust TGNMO concentrations of 50 ppmv or less.

(B) Because of the high efficiency of the control device, the anticipated TGNMO concentration at the control device exhaust is 50 ppmv or less, regardless of the inlet concentration.

(ii) Using the TGNMO concentration from Method 25 or the TOC concentration from method 25A, calculate the emission rate of TOC (E_{TOC}) in the inlet and outlet vent streams according to paragraph (c)(7)(iii) of this section.

(iii) Calculate the percent reduction in TOC according to paragraph (c)(7)(iv) of this section.

(11) You must use Method 26 in appendix A to part 60 to measure hydrogen halide and halogen concentrations as specified in Table 9 of this subpart, and you must conduct the performance test using the procedures in paragraphs (c)(11)(i) and (ii) of this section.

(i) Use a minimum sampling time of 1 hour.

(ii) Use Method 26A in lieu of Method 26 when measuring emissions at the outlet of a scrubber where the potential for mist carryover exists.

(12) If the uncontrolled or inlet gas stream to the control device contains formaldehyde, you must conduct emissions testing according to paragraph (c)(12)(i) or (ii) of this section.

(i) If you elect to comply with any of the percent reduction emission limitations in Tables 1 through 6, and formaldehyde is the principal HAP component (i.e., greater than 50 percent of the HAP in the stream by volume), than you must use method 316 or Method 320 (40 CFR part 63, appendix A) to measure formaldehyde at the inlet and outlet of the control device. Use the percent reduction in formaldehyde as a surrogate for the percent reduction in total HAP emissions.

(ii) If you elect to comply with any of the outlet TOC concentration limitations in Tables 1 through 6 of this subpart, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration) formaldehyde, you must use Method 316 or Method 320 (40 CFR part 63, appendix A) to separately determine the formaldehyde concentration. Calculate the total HAP or TOC emissions by totaling the formaldehyde emissions measured using Method 316 or 320 and the other HAP emissions measured using Method 18 or 25/25A according to Table 9 of this subpart.

(13) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, you must conduct emissions testing according to paragraphs (c)(13)(i) or (ii) of this section.

(i) If you elect to comply with any of the percent reduction emission limitations in Tables 1 through 6 of this subpart, and carbon disulfide is the principal HAP component (i.e., greater than 50 percent of the HAP in the stream by volume), then you must use Method 18 or Method 15 (40 CFR part 60, appendix A) to measure carbon disulfide at the inlet and outlet of the control device. Use the percent reduction in carbon disulfide as a surrogate for the percent reduction in total HAP emissions.

(ii) If you elect to comply with any of the outlet TOC concentration limitations in Table 1 through 6 of this subpart, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration) carbon disulfide, you must use Method 18 or Method 15 to separately determine the carbon disulfide concentration. Calculate the total HAP or TOC emissions by totaling the formaldehyde emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25/25A according to Table 9 of this subpart.

(14) You may use ASTM D6420–99 (incorporated by reference as specified in § 63.14) in lieu of Method 18 of 40 CFR part 60, appendix A, under the conditions specified in paragraphs (c)(14)(i) through (iii) of this section.

(i) If the target compound(s) is listed in Section 1.1 of ASTM D6420–99 and the target concentration is between 150 parts per billion by volume and 100 ppmv.

(ii) If the target compound(s) is not listed in Section 1.1 of ASTM D6420–99, but is potentially detected by mass spectrometry, an additional system continuing calibration check after each run, as detailed in Section 10.5.3 of ASTM D6420–99, must be followed, met, documented, and submitted with the performance test report even if you do not use a moisture condenser or the compound is not considered soluble.

(iii) If a minimum of one sample/analysis cycle is completed at least every 15 minutes.

(15) Three test runs are required for each performance test.

(d) *Design evaluation.* When you conduct a design evaluation, you must follow the procedures in § 63.1257(a)(1). The design evaluation must also include the value(s) and basis for the operating limit(s) to be monitored as specified in Table 8 of this subpart.

(e) *Establishing operating limits during performance tests.* During the period of each performance test conducted according to paragraphs (c)(2) and (3) of this section for any type of control device listed in Table 8 of this subpart, you must collect operating parameter monitoring system data, average the operating parameter data over the test period, determine the operating limit(s) to be monitored for that control device, and set limits according to paragraphs (e)(1) and (2) of this section. You may also elect to establish additional operating limit(s) for conditions other than those under which the performance test was conducted as specified in paragraph (e)(3) of this section.

(1) If the operating limit to be established is a maximum, it must be based on the average of the values for each of the three test runs.

(2) If the operating limit to be established is a minimum, it must be based on the average of the values for each of the three test runs.

(3) If you elect to establish additional operating limits, you must comply with the requirements specified in paragraph (e)(3)(i) of this section and, if applicable, paragraph (e)(3)(ii) of this section.

(i) The additional operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this paragraph (e)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to § 63.2525(a)(5).

(f) *Periodic verification.* For a control device with total inlet HAP emissions less than 1 ton/yr, you must establish an operating limit(s) for a parameter(s) that you will measure and record at least once per averaging period (i.e., daily or block, as defined in § 63.2475(a)(5) or (b)(3)) to verify that the control device is operating properly. You may elect to measure the same parameter(s) that is required for control devices that control inlet HAP emissions equal to or greater than 1 ton/yr as specified in Table 8 of this subpart. If the parameter will not be measured continuously, you must request approval of your proposed procedure in the precompliance report. You must identify the operating limit(s) and the measurement frequency, and you must provide rationale to support how these measurements demonstrate the control device is operating properly.

(g) *Outlet concentration correction for supplemental gases.* (1) *Combustion Devices.* If you use a combustion device to comply with an outlet concentration emission limitation, you must correct the actual TOC, organic HAP, and hydrogen halide and halogen concentrations to 3 percent oxygen if you add supplemental gases, as defined in § 63.2550, to the vent stream or manifold. You must use the integrated sampling and analysis procedures of Method 3A or 3B of 40 CFR part 60, appendix A, to determine the actual oxygen concentration ($\%0_{2d}$). You must take samples during the same time that you take the TOC or total organic HAP or hydrogen halides and halogen samples. Use Equation 1 of this section to correct the concentration to 3 percent oxygen (Cc):

$$C_c = C_m \left(\frac{17.9}{20.9 - \%O_{2d}} \right) \qquad \text{(Eq. 1)}$$

Where:

C_c = concentration of TOC or total organic HAP or hydrogen halide and halogen corrected to 3 percent oxygen, dry basis, ppmv;

C_m = total concentration of TOC or total organic HAP or hydrogen halide and halogen in vented gas stream, average of samples, dry basis, ppmv;

$\%0_{2d}$ = concentration of oxygen measured in vented gas stream, dry basis, percent by volume.

(2) *Noncombustion devices.* If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide outlet concentration emission limitation, you must correct the actual concentration for supplemental gases using Equation 2 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas:

$$C_a = C_m \left(\frac{Q_s + Q_a}{Q_a} \right) \qquad \text{(Eq. 2)}$$

Where:

C_a = corrected outlet TOC, organic HAP, and hydrogen halides and halogens concentration, dry basis, ppmv;

C_m = actual TOC, organic HAP, and hydrogen halides and halogens concentration measured at control device outlet, dry basis, ppmv;

Q_a = total volumetric flow rate of all gas streams vented to the control device, except supplemental gases;

Q_s = total volumetric flow rate of supplemental gases.

(h) *Combination of batch vents with other vents.* If other vents are manifolded with batch process vents, you must demonstrate initial compliance for the other vents either as part of the initial compliance demonstration for the batch vents, or you must conduct multiple demonstrations (one for the batch vents, and one or more for the other vents).

§ 63.2475 What are my monitoring device installation, operation, and maintenance requirements?

(a) Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in paragraphs (a)(1) through (6) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable Performance Specification of 40 CFR part 60, appendix B, and according to paragraph

(a)(2) of this section, except as specified in paragraph (a)(1)(i) of this section. For any CEMS meeting Performance Specification 8, you must also comply with appendix F, procedure 1 of 40 CFR part 60.

(i) If you wish to use a CEMS other than an Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 to measure hydrochloric acid (HCl) before we promulgate a Performance Specification for such CEMS, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in § 63.8.

(ii) [Reserved].

(2) You must determine the calibration gases and reporting units for TOC CEMS in accordance with paragraph (a)(2)(i), (ii), or (iii) of this section.

(i) For CEMS meeting Performance Specification 9 or 15 requirements, determine the target analyte(s) for calibration using either process knowledge of the control device inlet stream or the screening procedures of Method 18 on the control device inlet stream.

(ii) For CEMS meeting Performance Specification 8 used to monitor performance of a combustion device, calibrate the instrument on the predominant HAP and report the results as carbon (C_1), and use Method 25A or any approved alternative as the reference method for the relative accuracy tests.

(iii) For CEMS meeting Performance Specification 8 used to monitor performance of a noncombustion device, determine the predominant HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant HAP, and report the results as C_1. Use Method 18, ASTM D6420–99, or any approved alternative as the reference method for the relative accuracy tests, and report the results as C_1.

(3) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B, except as specified in paragraph (a)(3)(i) of this section.

(i) If you have an existing source, the requirement in § 63.8(e)(4) to conduct the performance evaluation not later than 180 days after the compliance date does not apply for the purposes of this subpart. In this situation, you must conduct the performance evaluation for the CEMS prior to the compliance date, and you must submit the results to the Administrator in the Notification of Compliance Status.

(ii) [Reserved].

(4) As specified in § 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) The CEMS data must be reduced to operating day or operating block averages computed using valid data from at least 75 percent of the hours during the averaging period. To have a valid hour of data, you must have four or more data points equally spaced over the 1-hour period (or at least two data points during an hour when calibration, quality assurance, or maintenance activities are being performed). An operating block is a period of time from the beginning to end of a batch process. Operating block averages may be used only for batch processes.

(6) If you add supplemental gases, you must correct the measured concentrations in accordance with § 63.2470(g).

(b) You must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the requirements in paragraphs (b)(1) through (4) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Have valid data from at least 75 percent of the hours during the averaging period.

(3) Determine the average of all recorded readings associated with each operating limit for each operating day or operating block. An operating block is a period of time that is equal to the time from the beginning to end of a batch process. Operating block averages may be used only for batch processes.

(4) Record the results of each inspection, calibration, and validation check.

(c) For each temperature monitoring device, you must meet the requirements in paragraphs (b) and (c)(1) through (8) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a noncryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2°C or 0.75 percent of the temperature value, whichever is larger.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2°C or 2 percent of the temperature value, whichever is larger.

(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(5) If a chart recorder is used, it must have a sensitivity in the minor division of at least 11°C.

(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7°C of the process temperature sensor's reading.

(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

(8) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

(d) For each flow measurement device, you must meet the requirements in paragraphs (b) and (d)(1) through (5) of this section.

(1) Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow.

(2) Use a flow sensor with a minimum tolerance of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(5) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(e) For each pressure measurement device, you must meet the requirements in paragraphs (b) and (e)(1) through (7) of this section.

(1) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(7) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(f) For each pH measurement device, you must meet the requirements in paragraphs (b) and (f)(1) through (4) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(4) At least monthly, inspect all components for integrity and all electrical connections for continuity.

(g) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow.

§ 63.2480 How do I demonstrate initial compliance with the emission limitations and work practice standards?

(a) You must demonstrate initial compliance with each emission limitation and work practice standard that applies to you according to Tables 10 through 16 of this subpart.

(b) You must establish each site-specific operating limit in Table 8 of this subpart that applies to you according to the requirements in § 63.2470(d), (e), or (f).

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.2515(e).

Continuous Compliance Requirements

§ 63.2485 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You must not use data recorded during monitoring malfunctions, associated repairs, required quality assurance or control activities, and periods of no flow in data averages and calculations used to report emission or operating levels, nor may such data be used in fulfilling a minimum data availability requirement. You must use all of the data you collected during all other periods in assessing the operation of the control device and associated control system.

§ 63.2490 How do I demonstrate continuous compliance with the emission limitations and work practice standards?

(a) You must demonstrate continuous compliance with each emission limitation and work practice standard in Tables 1 through 8 of this subpart that applies to you according to methods specified in Tables 17, 18, and 19 of this subpart.

(b) You must report each instance in which you did not meet each emission limitation and each operating limit in Tables 17 and 18 of this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. You must also report each instance in which you did not meet the requirements in Table 19 of this subpart that apply to you. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.2520.

(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the startup, shutdown, and malfunction plan.

(d) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

Alternative Means of Compliance

§ 63.2495 How do I comply with the pollution prevention standard?

(a) If you have an existing affected source, you may elect to comply with the pollution prevention alternative requirements specified in paragraphs (a)(1) and (2) of this section in lieu of the emission limitations and work practice standards contained in Tables 2 through 5 of this subpart for any MCPU.

(1) You must reduce the production-indexed HAP consumption factor (HAP factor) by at least 65 percent from a 3-year average baseline beginning no earlier than the 1994 through 1996 calendar years. Alternatively, for a process that has been operating for less than 3 years but more than 1 year, you may calculate the baseline factor for the time period from startup of the process until the present. For any reduction in the HAP factor that you achieve by reducing HAP that are also volatile organic compounds (VOC), you must demonstrate an equivalent reduction in the production-indexed VOC consumption factor (VOC factor) on a mass basis. For any reduction in the HAP factor that you achieve by reducing a HAP that is not a VOC, you may not increase the VOC factor.

(2) You may comply with the requirements of paragraph (a)(1) of this section for a series of processes, including situations where multiple processes are merged, if you demonstrate to the satisfaction of the Administrator that the multiple processes were merged after the baseline period into an existing process or processes.

(b) *Exclusions.* (1) You must comply with the emission limitations and work practice standards contained in Tables 2 through 5 of this subpart for all HAP that are generated in the MCPU and that are not part of the HAP factor. Hydrogen halides that are generated as a result of combustion control must be controlled according to the requirements of Table 7 of this subpart.

(2) You may not merge nondedicated formulation or nondedicated solvent recovery processes with any other processes.

(3) You may not comply with paragraph (a) of this section for transfer operations that are subject to the emission limitations and work practice standards in Table 6 of this subpart.

(c) *Initial compliance procedures.* To demonstrate initial compliance with paragraph (a) of this section, you must prepare a demonstration summary in accordance with paragraph (c)(1) of this section and calculate baseline and target annual HAP and VOC factors in accordance with paragraphs (c)(2) and (3) of this section.

(1) *Demonstration summary.* You must prepare a pollution prevention demonstration summary that contains, at a minimum, the information in paragraphs (c)(1)(i) through (iii) of this section for each MCPU for which you comply with paragraph (a) of this section. You must include the demonstration summary in the Precompliance report required in Table 20 of this subpart and § 63.2520(c).

(i) Descriptions of the methodologies and forms used to measure and record consumption of HAP and VOC compounds.

(ii) Descriptions of the methodologies and forms used to measure and record production of the product(s).

(iii) Supporting documentation for the descriptions provided in accordance with paragraphs (c)(1)(i) and (ii) of this

section including, but not limited to, operator log sheets and copies of daily, monthly, and annual inventories of materials and products. You must show how this documentation will be used to calculate the annual factors required in paragraph (d) of this section.

(2) *Baseline factors.* You must calculate baseline HAP and VOC factors by dividing the consumption of total HAP and total VOC by the production rate, per process, for the first 3-year period in which the process was operational, beginning no earlier than the period consisting of the 1994 through 1996 calendar years. Alternatively, for a process that has been operational for less than 3 years, but more than 1 year, the baseline factors must be established for the time period from startup of the process until April 4, 2002.

(3) *Target annual factors.* You must calculate a target annual HAP factor that is equal to or less than 35 percent of the baseline HAP factor. For each reduction in a HAP that is also a VOC, you must calculate a target annual VOC factor that is lower than the baseline VOC factor by an equivalent amount on a mass basis. For each reduction in a HAP that is not a VOC, the target annual VOC factor must be equal to or less than the baseline VOC factor.

(d) *Continuous compliance requirements.* You must calculate annual rolling average values of the HAP and VOC factors (annual factors) in accordance with the procedures specified in paragraphs (d)(1) through (3) of this section. To show continuous compliance, the annual factors must be equal to or less than the target annual factors calculated according to paragraph (c)(3) of this section.

(1) To calculate the annual factors, you must divide the consumption of both total HAP and total VOC by the production rate, per process, for 12-month periods at the frequency specified in either paragraph (d)(2) or (3) of this section, as applicable.

(2) For continuous processes, you must calculate the annual factors every 30 days for the 12-month period preceding the 30th day (*i.e.,* annual rolling average calculated every 30 days). A process with both batch and continuous operations is considered a continuous process for the purposes of this section.

(3) For batch processes, you must calculate the annual factors every 10 batches for the 12-month period preceding the 10th batch (*i.e.,* annual rolling average calculated every 10 batches), except as specified in paragraphs (d)(3)(i) and (ii) of this section.

(i) If you produce more than 10 batches during a month, you must calculate the annual factors at least once during that month.

(ii) If you produce less than 10 batches in a 12-month period, you must calculate the annual factors for the number of batches in the 12-month period since the previous calculations.

(e) *Records.* You must keep records of HAP and VOC consumption, production, and the rolling annual HAP and VOC factors for each MCPU for which you are complying with paragraph (a) of this section.

(f) *Reporting.* (1) You must include the pollution-prevention demonstration summary in the Precompliance report required by Table 20 of this subpart and § 63.2520(c).

(2) You must identify all days when the annual factors were above the target factors in the compliance reports.

§ 63.2500 How do I comply with emissions averaging?

(a) For an existing source, you may elect to comply with the percent reduction emission limitations in Tables 1 through 4 of this subpart by complying with the emissions averaging provisions according to paragraphs (b) through (e) of this section for groups of as many as 40 emission points. Each batch process represents one emission point for the purposes of emissions averaging.

(b) *Exclusions.* You may not include the emission points specified in paragraphs (b)(1) through (7) of this section in an emissions average.

(1) Any emission points for which State authorities prohibit the use of emissions averaging and require compliance with the emission limitations and work practice standards in Tables 1 through 4 of this subpart.

(2) Emission points that are controlled as specified in paragraphs (b)(2)(i) through (iv) may not be used to calculate emissions averaging credits, unless a nominal efficiency has been assigned according to the procedures in § 63.150(i). The nominal efficiency must exceed the percent reduction required by Tables 1 through 4 of this subpart.

(i) Affected storage tanks controlled with an internal floating roof meeting the specifications of § 63.1063(a)(1)(i), or an external floating roof meeting the specifications of § 63.1063(a)(1)(ii).

(ii) Emission points controlled with a flare.

(iii) Waste management units controlled as specified in §§ 63.133 through 63.137.

(iv) Wastewater treated in a steam stripper meeting the specifications in § 63.138(d).

(3) Emission streams controlled to an outlet concentration less than or equal to 20 ppmv may not be used in any averaging group.

(4) Maintenance wastewater streams and wastewater streams treated in biological treatment units may not be included in any averaging group.

(5) Processes which have been permanently shut down and storage tanks permanently taken out of HAP service may not be included in any averaging group.

(6) Emission points already controlled on or before November 15, 1990 may not be used to generate emissions averaging credits, unless the level of control has been increased after November 15, 1990. In these cases, credit will be allowed only for the increase in control after November 15, 1990.

(7) Emission points controlled to comply with a State or Federal rule other than this subpart may not be included in an emissions averaging group, unless the level of control has been increased after November 15, 1990, above what is required by the other State or Federal rule. Only the control above what is required by the other State or Federal rule will be credited. However, if an emission point has been used to generate emissions averaging credit in an approved emissions average, and the point is subsequently made subject to a State or Federal rule other than this subpart, the point can continue to generate emissions averaging credit for the purpose of complying with the previously approved average.

(c) *Compliance procedures.* To demonstrate compliance with the emissions averaging provisions, you must comply with the requirements of paragraphs (c)(1) through (7) of this section.

(1) *Emissions averaging plan.* You must develop and submit for approval an emissions averaging plan according to paragraphs (c)(1)(i) through (vi) of this section.

(i) The emissions averaging plan must demonstrate that the emissions from the emission points proposed to be included in the average will not result in greater hazard or, at the option of the permitting authority, greater risk to human health or the environment than if the emission points were controlled according to Tables 1 through 4 of this subpart.

(ii) The demonstration of hazard or risk equivalency must be made to the satisfaction of the operating permit authority, and we may require you to use specific methodologies and procedures such as any guidance that

we prepare or any other technically sound information or methods.

(iii) An emissions averaging plan that does not demonstrate hazard or risk equivalency to our satisfaction will not be approved. We may require such adjustments to the emissions averaging plan as are necessary in order to ensure that the average will not result in greater hazard or risk to human health or the environment than would result if the emission points were controlled according to the emission limitations and work practice standards in Tables 1 through 4 of this subpart.

(iv) A hazard or risk equivalency demonstration must satisfy the requirements specified in paragraphs (c)(1)(iv)(A) through (C) of this section.

(A) Be a quantitative, comparative chemical hazard or risk assessment.

(B) Account for differences between averaging and nonaveraging options in chemical hazard or risk to human health or the environment.

(C) Meet any requirements we set for such demonstrations.

(v) For all emission points included in emissions averaging, the emissions averaging plan must include the information listed in paragraphs (c)(1)(v)(A) through (E) of this section.

(A) The identification of all emission points in each emissions average.

(B) The uncontrolled and controlled HAP emissions for all of the emission points included to calculate the debits and credits in paragraphs (c)(5) and (6) of this section.

(C) The debit and credit calculations.

(D) The estimated values for all operating limits set according to § 63.2470(d), (e), or (f) and Table 8 of this subpart for each emission point included in the averages.

(E) A statement that the initial and continuous compliance demonstrations and associated reporting and recordkeeping in this section for each emission point in the averages will be implemented beginning on the compliance date.

(vi) You must submit the emissions averaging plan no later than 18 months prior to the compliance date of this subpart. We will determine within 120 calendar days whether your emissions averaging plan presents sufficient information. We will either approve the emissions averaging plan, request changes, or request additional information from you. Once we receive sufficient information, we will approve, disapprove, or request changes to the plan within 120 days. If we disapprove the emissions averaging plan, you must still be in compliance with the emission limitations and work practice standards in Tables 1 through 4 of this subpart by the compliance date.

(2) For all points included in an emissions average, you must comply with the procedures that are specified in paragraphs (c)(2)(i) through (v) of this section.

(i) Calculate and record monthly debits for all affected emission points that are controlled to a level less stringent than required by the emission limitations for those emission points. Use equations in paragraph (c)(5) of this section to calculate debits.

(ii) Calculate and record monthly credits for all emission points that are overcontrolled to compensate for the debits. Use equations in paragraph (c)(6) of this section to calculate credits. All process vent, storage tank, and wastewater emission points except those specified in paragraph (b) of this section may be included in the credit calculation.

(iii) Demonstrate that annual credits calculated according to paragraph (c)(6) of this section are greater than or equal to debits calculated according to paragraph (c)(5) of this section for the same annual compliance period. The initial demonstration in the emissions averaging plan or operating permit application that credit-generating emission points will be capable of generating sufficient credits to offset the debit-generating emission points must be made under representative operating conditions. After the compliance date, actual operating data must be used for all debit and credit calculations.

(iv) Demonstrate that debits calculated for a quarterly (3-month) period according to paragraph (c)(5) of this section are not more than 1.30 times the credits for the same period calculated according to paragraph (c)(6) of this section. You determine compliance for the quarter based on the ratio of credits and debits from that quarter, with 30 percent more debits than credits allowed on a quarterly basis.

(v) Record and report quarterly and annual credits and debits as required in paragraphs (d) and (e) of this section.

(3) You may not include emissions during periods of malfunction in calculation of credits and debits. You may not include periods of startup and shutdown for continuous processes in calculation of credits and debits.

(4) During periods of monitoring deviations, you must adjust credits and debits as specified in paragraphs (c)(4)(i) through (iii) of this section.

(i) Assign no credits to the credit-generating emission point.

(ii) Assign maximum debits to the debit-generating emission point.

(iii) You may demonstrate to the Administrator that full or partial credits or debits should be assigned using the procedures in § 63.150(l).

(5) *Debits.* Debits are generated by the difference between the actual emissions from an affected emission point that is uncontrolled or controlled to a level less stringent than the applicable standard and the emissions allowed for the affected emission point. Calculate debits in accordance with the procedures specified in paragraphs (c)(5)(i) through (iv) of this section.

(i) Calculate sourcewide debits using Equation 1 of this section:

$$\text{Debits} = \sum_{i=1}^{n}\left[EPV_{iA} - (0.02)\left(EPV_{iU}\right)\right] + \sum_{i=1}^{n}\left[ES_{iA} - (0.05)\left(ES_{iU}\right)\right] + \sum_{i=1}^{n}\left[EWW_{iA} - \left(EWW_{iC}\right)\right] \qquad \text{(Eq. 1)}$$

Where:

Debits and all terms of Equation 1 of this section are in units of Mg/month, and;

EPV_{iU} = uncontrolled emissions from continuous process vent i and batch process i calculated according to the procedures specified in paragraph (c)(5)(ii) of this section;

EPV_{iA} = actual emissions from each affected continuous process vent i and batch process i that is uncontrolled or is controlled to a level less stringent than the required 98 percent reduction in Table 1 or 2 of this subpart. Calculate EPV_{iA} using the procedures in paragraph (c)(5)(ii) of this section;

ES_{iU} = uncontrolled emissions from storage tank i calculated according to the procedures specified in paragraph (c)(5)(iii) of this section;

ES_{iA} = actual emissions from each affected storage vessel i that is uncontrolled or is controlled to a level less stringent than the required 95 percent reduction in Table 4 of this subpart. Calculate

ES_{iA} using the procedures in paragraph (c)(5)(iii) of this section;

EWW_{iC} = emissions from each affected wastewater stream i if the wastewater stream had been managed and treated as specified in Table 3 of this subpart. Calculate EWW_{iC} using the procedures in paragraph (c)(5)(iv) of this section;

EWW_{iA} = actual emissions from each affected wastewater stream i that is uncontrolled or has been managed and treated in a manner that is less stringent than that specified in Table 3 of this subpart. Calculate EWW_{iA} using the procedures in paragraph (c)(5)(iv) of this section;

n = the number of emission points being included in the emissions average; the value of n is not necessarily the same for process vents, storage tanks, and wastewater.

(ii) Calculate emissions from process vents in accordance with the procedures specified in paragraphs (c)(5)(ii)(A) through (C) of this section.

(A) Except as provided in paragraph (c)(5)(ii)(C) of this section, calculate uncontrolled emissions for process vents using the procedures specified in § 63.1257(d)(2).

(B) Except as provided in paragraph (c)(5)(ii)(C) of this section, calculate actual emissions for process vents using the procedures specified in § 63.1257(d)(2) and (3), as applicable.

(C) As an alternative to the procedures described in paragraphs (c)(5)(ii)(A) and (B) of this section, for continuous process vents, you may calculate uncontrolled and actual emissions by the procedures described in § 63.150(g)(2). For purposes of complying with this paragraph, the term ''recovery device'' in § 63.150(g)(2) means ''process condenser.''

(iii) Calculate uncontrolled emissions from storage tanks in accordance with the procedures described in § 63.150(g)(3)(i). Calculate actual emissions from storage tanks using the procedures specified in § 63.150(g)(3)(ii) or (iii), as appropriate, except that when § 63.150(g)(3)(ii)(B) refers to the procedures in § 63.120(d) for determining percent reduction for a control device, § 63.1257(a)(1) shall apply for the purposes of this subpart.

(iv) Calculate emissions from wastewater using the procedures specified in § 63.150(g)(5).

(6) *Credits.* Credits are generated by the difference between emissions that are allowed for each affected and nonaffected emission point, and the actual emissions from that affected or nonaffected emission point that have been controlled after November 15, 1990 to a level more stringent than what is required in this subpart or any other State or Federal rule or statute. Calculate credits in accordance with the procedures specified in paragraphs (c)(6)(i) through (v) of this section.

(i) Calculate sourcewide credits using Equation 2 of this section:

$$\text{Credits} = D\sum_{i=1}^{n}\left[(0.02)\left(EPV1_{iU}\right) - EPV_{iA}\right] + D\sum_{i=1}^{m}\left(EPV2_{iB} - EPV2_{iA}\right) + D\sum_{i=1}^{n}\left[(0.05)\left(ES1_{iU}\right) - ES1_{iA}\right]$$
$$+ D\sum_{i=1}^{m}\left(ES2_{iB} - ES2_{iA}\right) + D\sum_{i=1}^{n}\left(EWW1_{iC} - EWW1_{iA}\right) + D\sum_{i=1}^{m}\left(EWW2_{iB} - EWW2_{iA}\right) \qquad \text{(Eq. 2)}$$

Where:

Credits and all terms in Equation 2 of this section are in units of Mg/month, the baseline date is November 15, 1990, the terms consisting of a constant multiplied by the uncontrolled emissions are the emissions from each emission point subject to a percent reduction requirement in Table 1, 2, or 4 of this subpart that are controlled to a level more stringent than the applicable percent reduction requirement, and;

$EPV1_{iU}$ = uncontrolled emissions from each affected continuous process vent i and batch process i calculated according to the procedures in paragraph (c)(6)(iii)(A) of this section;

$EPV1_{iA}$ = actual emissions from each affected continuous process vent i and batch process i that is controlled to a level more stringent than 98 percent. Calculate $EPV1_{iA}$ according to the procedures in paragraph (c)(6)(iii)(B) of this section;

$EPV2_{iB}$ = emissions from each nonaffected continuous process vent i and batch process i at the baseline date. Calculate $EPV2_{iB}$ according to the procedures in paragraph (c)(6)(iii)(C) of this section;

$EPV2_{iA}$ = actual emissions from each nonaffected continuous process vent i and batch process i that is controlled. Calculate $EPV2_{iA}$ according to the procedures in paragraph (c)(6)(iii)(C) of this section;

$ES1_{iU}$ = uncontrolled emissions from each affected storage tank i calculated according to the procedures in paragraph (c)(6)(iv) of this section;

$ES1_{iA}$ = actual emissions from each affected storage tank i that is controlled to a level more stringent than 95 percent. Calculate $ES1_{iA}$ according to the procedures in paragraph (c)(6)(iv) of this section;

$ES2_{iB}$ = emissions from each nonaffected storage tank i at the baseline date. Calculate $ES2_{iB}$ according to the procedures in paragraph (c)(6)(iv) of this section;

$ES2_{iA}$ = actual emissions from each nonaffected storage tank i that is controlled. Calculate $ES2_{iA}$ according to the procedures in paragraph (c)(6)(iv) of this section;

$EWW1_{iC}$ = emissions from each affected wastewater stream i if the wastewater stream had been managed and treated as specified in Table 3 of this subpart. Calculate $EWW1_{iC}$ according to the procedures in paragraph (c)(6)(v) of this section;

$EWW1_{iA}$ = emissions from each affected wastewater stream i that is controlled to a level more stringent than if the wastewater stream had been managed and treated as specified in Table 3 of this subpart. Calculate $EWW1_{iA}$ according to the procedures in paragraph (c)(6)(v) of this section;

$EWW2_{iB}$ = emissions from each nonaffected wastewater stream i at the baseline date. Calculate $EWW2_{iB}$ according to the procedures in paragraph (c)(6)(v) of this section;

$EWW2_{iA}$ = actual emissions from each nonaffected wastewater stream i that is controlled. Calculate $EWW2_{iA}$ according to the procedures in paragraph (c)(6)(v) of this section;

n = number of affected emission points that are included in the emissions average. The value of n is not necessarily the same for process vents, storage tanks, and wastewater;

m = number of nonaffected emission points included in the emissions average. The value of m is not necessarily the same for process vents, storage tanks, and wastewater;
D = discount factor equal to 0.9 for all credit-generating emission points.

(ii) For an emission point controlled using a pollution prevention measure, determine the nominal efficiency for calculating credits as described in § 63.150(j).

(iii) Calculate emissions from process vents in accordance with the procedures specified in paragraphs (c)(6)(iii)(A) through (C) of this section.

(A) Calculate uncontrolled emissions from affected process vents according to the procedures in paragraph (c)(5)(ii)(A) or (C) of this section.

(B) Calculate actual emissions from affected process vents with a nominal efficiency greater than 98 percent or a pollution prevention measure that achieves reductions greater than 98 percent using Equation 3 of this section:

$$EPV1_{iA} = EPV1_{iU} \times \left[1 - N_{eff}/100\right] \qquad \text{(Eq. 3)}$$

Where:
$EPV1_{iA}$ = actual emissions from each affected continuous process vent i or batch process i that is controlled to a level more stringent than 98 percent;
$EPV1_{iU}$ = uncontrolled emissions from each affected continuous process vent i or batch process i;
N_{eff} = nominal efficiency of control device or pollution prevention measure, percent.

(C) Calculate baseline and actual emissions from nonaffected process vents according to the procedures in § 63.150(c)(2)(iii) and (iv), except when the phrase ''paragraph (g)(2)'' is referred to in § 63.150(h)(2)(iii) and (iv), the provisions in paragraph (c)(5)(ii) of this section apply for the purposes of this subpart.

(iv) Calculate uncontrolled emissions from storage tanks according to the procedures described in paragraph § 63.150(g)(3)(i). Calculate actual and baseline emissions from storage tanks according to the procedures specified in § 63.150(h)(3), except when § 63.150(h)(3) refers to § 63.150(g)(3)(i).

(v) Calculate emissions from wastewater using the procedures in § 63.150(h)(5).

(7) You must establish and comply with the operating limits for each emission point in an emissions average according to § 63.2470 and Table 8 of this subpart.

(d) *Records.* You must maintain the records specified in paragraphs (d)(1) and (4) of this section.

(1) All records specified in § 63.2525.

(2) Calculations of the debits and credits according to paragraphs (c)(5) and (6) of this section for the last quarter and the prior four quarters.

(3) A current copy of the emissions averaging plan.

(4) The number of turnovers for each storage tank used in an emissions average.

(e) *Reporting.* You must submit the information specified in paragraphs (e)(1) and (2) of this section.

(1) The emissions averaging plan as specified in paragraph (c)(1)(iii) of this section.

(2) The required information for compliance reports specified in § 63.2520(d) for each emission point in emission averages.

(3) The compliance reports must also include the information specified in paragraphs (e)(3)(i) through (iv) of this section.

(i) Any changes to the processes, storage tanks, or waste management units included in an emissions average.

(ii) The calculation of the debits and credits for the reporting period.

(iii) Changes to the emissions averaging plan which affect the calculation methodology of uncontrolled or controlled emissions or the hazard or risk equivalency determination.

(iv) Any changes to the operating limits monitored according to paragraph (c)(7) of this section.

§ 63.2505 How do I comply with the alternative standard?

As an alternative to complying with the emission limitations and work practice standards for process vents and storage tanks in Tables 1, 2, and 4 of this subpart, you may comply with the emission limitations in paragraph (a) of this section and demonstrate initial and continuous compliance in accordance with the requirements in paragraphs (b) and (c) of this section. Reporting and recordkeeping requirements are specified in §§ 63.2520 and 63.2525.

(a) *Emission limitations and work practice standards.* (1) You must route vent streams through a closed-vent system to a control device that reduces HAP emissions as specified in either paragraph (a)(1)(i) or (ii) of this section.

(i) If you use a combustion control device, it must reduce HAP emissions as specified in paragraphs (a)(1)(i)(A), (B), and (C) of this section.

(A) To an outlet TOC concentration of 20 ppmv or less.

(B) To an outlet concentration of hydrogen halides and halogens of 20 ppmv or less.

(C) As an alternative to paragraph (a)(1)(ii)(B) of this section, if you control halogenated vent streams emitted from a combustion device followed by a scrubber, you may reduce the hydrogen halides and halogens generated in the combustion device by ≥95 percent by weight in the scrubber and establish operating parameters for the scrubber in accordance with Table 8 of this subpart.

(ii) If you use a noncombustion control device, it must reduce HAP emissions to an outlet total organic HAP concentration of 50 ppmv or less, and an outlet concentration of hydrogen halides and halogens of 50 ppmv or less.

(2) You must comply with the work practice standards for closed-vent systems in Table 5 of this subpart.

(3) Any batch process vents within a process that are not controlled according to this alternative standard must be controlled according to the emission limitations and work practice standards in Table 2 of this subpart.

(b) *Initial compliance requirements.* You demonstrate initial compliance with the alternative standard if you comply with the requirements in paragraphs (b)(1) through (6) of this section.

(1) Install and begin to operate and maintain each CEMS in accordance with paragraph (c) of this section no later than the date 3 years after the effective date of this subpart.

(2) Conduct a performance evaluation of the CEMS as specified in § 63.2475(a)(3).

(3) Submit the results of any determination of the target analytes or predominant HAP in the Notification of Compliance Status.

(4) If you add supplemental gases to the vent stream or manifold, determine either the oxygen concentration (if you use a combustion device), or both the total vent stream and supplemental gas stream flow rates (if you use a noncombustion device), and calculate the ratio in Equation 1 or 2 of § 63.2470

to use in correcting the measured concentrations for supplemental gases.

(5) If you elect to comply with the requirement to reduce hydrogen halides and halogens by ≥95 percent by weight in paragraph (a)(1)(i)(C) of this section, you must demonstrate initial compliance by conducting a performance test and setting a site-specific operating limit(s) for the scrubber in accordance with entry 2.b. in Table 16 of this subpart. The applicable operating limits are specified in Table 8 of this subpart. You must submit the results of the initial compliance demonstration in the Notification of Compliance Status.

(6) Comply with the requirements for closed-vent systems in entries (c) and (d) of Table 14 of this subpart.

(c) *Continuous compliance requirements.* You demonstrate continuous compliance with the emission limitations in paragraph (a) of this section according to the requirements in paragraphs (c)(1) through (7) of this section.

(1) Except as specified in paragraphs (c)(1)(iii) and (iv) of this section, you must install, operate, and maintain CEMS to measure TOC and total hydrogen halide and halogen concentrations in accordance with paragraphs (c)(1)(i) and (ii) of this section and in accordance with § 63.2475(a)(1), (2), and (4), and you must reduce the CEMS data as specified in § 63.2475(a)(5). If you add supplemental gases to the vent stream or manifold, you must correct measured concentrations for supplemental gases or monitor other operating parameters as specified in paragraph (c)(7) of this section. The reduced results must be below the concentration limits specified in paragraph (a) of this section.

(i) Install CEMS to measure TOC in accordance with paragraph (c)(1)(i)(A) or (B) of this section.

(A) For noncombustion devices, install a CEMS that meets Performance Specification 8, 9, or 15.

(B) For combustion devices, install a CEMS that meets Performance Specification 8 and report the results as C_1.

(ii) Install CEMS to measure total halide and halogen concentrations in accordance with paragraph (c)(1)(ii)(A) or (B) of this section:

(A) Install a CEMS that meets Performance Specification 15 to measure HCl; or

(B) If you wish to measure HCl using a CEMS other than an Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 before we promulgate performance specifications for such monitors, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in § 63.8.

(iii) You do not need to monitor the hydrogen halide and halogen concentrations if, based on process knowledge, you determine that the emission stream does not contain hydrogen halides or halogens.

(iv) If you elect to comply with the requirement to reduce hydrogen halides and halogens by ≥95 percent by weight in paragraph (a)(1)(i)(C) of this section, you must comply with the requirements in paragraphs (c)(1)(iv)(A) through (C) of this section.

(A) Install, operate, and maintain CPMS for the scrubber as specified in § 63.2475(b) through (f), as applicable.

(B) Collect and reduce CPMS data for the scrubber in accordance with the requirements specified in entry 5., 6., or 7. of Table 18 of this subpart, as applicable.

(C) Maintain the daily or block average CPMS levels within the ranges established during the initial performance test.

(2) You must install, calibrate, and operate a flow indicator as specified in § 63.2475(g).

(3) You must monitor and collect data according to § 63.2485(b) and (c).

(4) You must demonstrate continuous compliance with the work practice standards for closed-vent systems as specified in entries (i) and (j) in Table 19 of this subpart.

(5) You must report each deviation according to § 63.2490(b).

(6) You must comply with the startup, shutdown, and malfunction requirements in § 63.2490(c) and (d).

(7) *Correction for supplemental gases.* If you add supplemental gases to the vents or manifolds, you must either correct for supplemental gases as specified in § 63.2470(g) or comply with the requirements of paragraph (c)(7)(i) or (ii) of this section. If you correct for supplemental gases as specified in § 63.2470(g)(2) for noncombustion control devices, you must evaluate the flow rates as specified in paragraph (c)(7)(iii) of this section.

(i) *Provisions for combustion devices.* As an alternative to correcting for supplemental gases as specified in § 63.2470(g), you must monitor residence time and firebox temperature according to the requirements of paragraphs (d)(7)(i)(A) and (B) of this section. Monitoring of residence time may be accomplished by monitoring flowrate into the combustion chamber.

(A) If complying with the alternative standard instead of complying with an emission limitation of 95 percent or less, you must maintain a minimum residence time of 0.5 seconds and a minimum combustion chamber temperature of 760°C.

(B) If complying with the alternative standard instead of complying with an emission limitation of 98 percent or less, you must maintain a minimum residence time of 0.75 seconds and a minimum combustion chamber temperature of 816°C.

(ii) *Provisions for dense gas systems.* As an alternative to correcting for supplemental gases as specified in § 63.2470(g), for noncombustion devices used to control emissions from dense gas systems, as defined in § 63.2550, you must monitor flowrate as specified in paragraphs (d)(7)(ii)(A) through (D) of this section.

(A) Use Equation 1 of this section to calculate the system flowrate setpoint at which the average concentration is 5,000 ppmv TOC:

$$Q_{set} = \frac{721 \times E_{an}}{5{,}000} \qquad \text{(Eq. 1)}$$

Where:

Q_{set} = system flowrate setpoint, scfm;
E_{an} = annual emissions entering the control device, lbmoles/yr.

(B) Annual emissions used in Equation 1 of this section must be based on the actual mass of organic compounds entering the control device as calculated from the most representative emissions inventory data that you submitted within the 5 years before the Notification of Compliance Status is due. You must recalculate the system flowrate setpoint once every 5 years using the annual emissions from the most representative emissions inventory data submitted during the 5-year period after the previous calculation. Results of the initial calculation must be included in the Notification of Compliance Status, and recalculated values must be included in the next compliance report after each recalculation. For all calculations after the initial calculation, to use emissions inventory data calculated using procedures other than those specified in § 63.1257(d), you must submit the emissions inventory data calculations and rationale for their use in the Precompliance report, Notification of Process Change report, or an application for a part 70 permit renewal or revision.

(C) In the Notification of Compliance Status, you may elect to establish both a maximum daily average operating flowrate limit above the flowrate setpoint and a reduced outlet concentration limit corresponding to this flowrate limit. You may also establish reduced outlet concentration

limits for any daily average flowrates between the flowrate setpoint and the flowrate limit. The correlation between these elevated flowrates and the corresponding outlet concentration limits must be established using Equation 2 of this section:

$$C_a = \frac{Q_{set}}{Q_{lim}} \times 50 \qquad \text{(Eq. 2)}$$

Where:

C_a = adjusted outlet concentration limit, dry basis, ppmv;
50 = outlet concentration limit associated with the flowrate setpoint, dry basis, ppmv;
Q_{set} = system flowrate setpoint, scfm;
Q_{lim} = actual system flowrate limit, scfm.

(D) You must install and operate a monitoring system for measuring system flowrate. The flowrate into the control device must be monitored and recorded at least once every hour. The system flowrate must be calculated as the average of all values measured during each 24-hour operating day. The flowrate monitoring sensor must have a minimum tolerance of 2 percent of the system flowrate setpoint, and the flowrate monitoring device must be calibrated at least semiannually.

(iii) *Flow rate evaluation for noncombustion devices.* To demonstrate continuous compliance with the requirement to correct for supplemental gases as specified in § 63.2470(g)(2) for noncombustion devices, you must evaluate the volumetric flow rate of supplemental gases, Q_s, and the volumetric flow rate of all gases, Q_a, each time a new operating scenario is implemented based on process knowledge and representative operating data. The procedures used to evaluate the flow rates, and the resulting correction factor used in Equation 2 of § 63.2470, must be included in the Notification of Compliance Status and in the next compliance report submitted after an operating scenario change.

§ 63.2510 How may I transfer wastewater to a treatment unit that I do not own or operate?

(a) You may elect to transfer an affected wastewater stream or a residual removed from an affected wastewater stream to an on-site treatment operation that you do not own or operate, or to an off-site treatment operation, according to the requirements in § 63.132(g), except as specified in paragraphs (a)(1) through (4) of this section.

(1) As an alternative to the management and treatment options specified in § 63.132(g)(2), any affected wastewater stream (or residual removed from an affected wastewater stream) that contains less than 50 ppmw of HAP in Table 2 to subpart GGG of this part may be transferred offsite if the transferee manages and treats the wastewater stream or residual in accordance with paragraphs (e)(1)(i) and (ii) of this section.

(i) The wastewater stream or residual is treated in a biological treatment unit in accordance with §§ 63.138 and 63.145.

(ii) The waste management units up to the activated sludge unit are covered, or you demonstrate that less than 5 percent of the total HAP in Table 3 to subpart GGG of this part is emitted from the waste management units up to the activated sludge unit.

(2) References in § 63.132(g) to ''Group 1'' wastewater mean ''affected'' wastewater for the purposes of this subpart.

(3) The references in § 63.132(g)(2) to ''§§ 63.133 through 63.147'' and in § 63.132(g)(1)(ii) to ''provisions of this subpart'' (i.e., subpart G) refer to the process wastewater provisions in §§ 63.2450 through 63.2490, 63.2520, and 63.2525 for the purposes of this subpart.

(4) The reference in § 63.132(g)(2) to ''§ 63.102(b) of subpart F'' does not apply for the purposes of this subpart.

(b) You must keep a record of the notice sent to the treatment operator stating that the wastewater stream or residual contains organic HAP which are required to be managed and treated in accordance with the provisions of this subpart.

Notification, Reports, and Records

§ 63.2515 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), 63.8(f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified. For any performance test required as part of the initial compliance procedures for batch process vents in Table 11 of this subpart, you must also submit the test plan required by § 63.7(c) and the emission profile with the Notification of the Performance Test.

(b) As specified in § 63.9(b)(2), if you startup your affected source before the effective date of the subpart, you must submit an Initial Notification not later than 120 calendar days after the effective date of the subpart.

(c) As specified in § 63.9(b)(3), if you startup your new or reconstructed affected source on or after the effective date, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(e) *Notification of Compliance Status.* If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Tables 10 through 16 of this subpart, you must submit a Notification of Compliance Status according to the schedule in paragraphs (e)(1) and (2) of this section, and the Notification of Compliance Status must contain the information specified in paragraph (e)(3) of this section.

(1) For an existing source in operation on the effective date, you must submit the Notification of Compliance Status no later than the compliance date specified in § 63.2445(b). For parts of an area source that become a major source and an existing affected source, you must submit the Notification of Compliance Status no later than the compliance date specified in § 63.2445(d)(2).

(2) If you have a new source, reconstructed source, or parts of a former area source that are a new source, you must submit the Notification of Compliance Status no later than 240 days after the applicable compliance date specified in § 63.2445(a) or (d)(1).

(3) The Notification of Compliance Status must include the information in paragraphs (e)(3)(i) through (viii) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to Tables 10 through 16 of this subpart. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) Listing of all operating scenarios.

(v) Descriptions of worst-case operating and/or testing conditions for control devices.

(vi) Identification of emission points subject to overlapping requirements described in § 63.2535 and the authority under which you will comply.

(vii) The information specified in § 63.1039(a)(1) through (3) for each process subject to the work practice standards for equipment leaks in Table 5 of this subpart.

(viii) If you are complying with the vapor balancing work practice standard for storage tanks, include a statement to that effect, and a statement that the pressure vent setting on the storage tank is equal to or greater than 2.5 pounds per square inch gauge (psig), as specified in Table 13 of this subpart.

(f) *Notification of Process Change.* (1) Except as specified in paragraph (f)(2) of this section, whenever you make a process change, or change any of the information submitted in the Notification of Compliance Status, you must submit a report semiannually. For the purposes of this section, a process change means the startup of a new process, as defined in § 63.2550. You may submit the notification as part of the compliance report required under § 63.2520(d). The notification must include all of the information in paragraphs (f)(1)(i) through (iv) of this section.

(i) A brief description of the process change.

(ii) A description of any modifications to standard procedures or quality assurance procedures.

(iii) Revisions to any of the information reported in the original Notification of Compliance Status under paragraph (e) of this section.

(iv) Information required by the Notification of Compliance Status under paragraph (e) of this section for changes involving the addition of processes or equipment.

(2) You must submit a report 60 days before the scheduled implementation date of either of the changes identified in paragraphs (f)(2)(i) or (ii) of this section.

(i) Any change in the activity covered by the Precompliance report.

(ii) A change in the status of a control device from small to large.

§ 63.2520 What reports must I submit and when?

(a) You must submit each report in Table 20 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 20 of this subpart and according to paragraphs (b)(1) through (5) of this section.

(1) The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.2445 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.2445.

(2) The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.2445.

(3) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) *Precompliance report.* You must submit a Precompliance report to request approval of any of the information in paragraphs (c)(1) through (5) of this section. We will either approve or disapprove the report within 90 days after we receive it. If we disapprove the report, you must still be in compliance with the emission limitations and work practice standards in this subpart by the compliance date. To change any of the information submitted in the report, you must notify us 60 days before the planned change is to be implemented.

(1) Requests for approval to set operating limits for parameters other than those in Table 8 of this subpart, and for control devices and treatment units other than those in Table 8 of this subpart. Alternatively, you may make these requests according to § 63.8(f).

(2) Descriptions of daily or per batch demonstrations to verify that control devices subject to entry 8. on Table 8 of this subpart are operating as designed.

(3) A description of the test conditions, data, calculations, and other information used to establish additional operating limits according to § 63.2470(e)(3).

(4) Data and rationale used to support an engineering assessment to calculate uncontrolled emissions from process vents as required in Table 11 of this subpart.

(5) The pollution prevention demonstration summary required in § 63.2495(c)(1), if you are complying with the pollution prevention alternative.

(d) *Compliance report.* The Compliance report must contain the information specified in paragraphs (d)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the Compliance report must include the information in § 63.10(d)(5)(i).

(5) The Compliance report must contain the information on deviations according to paragraphs (d)(5)(i), (ii), and (iii) of this section.

(i) If there are no deviations from any emission limitations (emission limits and operating limits) that apply to you, and there are no deviations from the requirements for work practice standards in Table 19 of this subpart, include a statement that there were no deviations from the emission limitations or work practice standards during the reporting period.

(ii) For each deviation from an emission limitation (emission limits and operating limits) and for each deviation from the requirements for work practice standards in Table 19 of this subpart that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limitations or work practice standards in this subpart, you must include the information in paragraphs (d)(5)(ii)(A) through (C) of this section. This includes periods of startup, shutdown, and malfunction.

(A) The total operating time of each affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if

applicable), as applicable, and the corrective action taken.

(C) Operating logs and operating scenarios.

(iii) For each deviation from an emission limitation (emission limits and operating limits) occurring at an affected source where you are using a CMS to comply with the emission limit in this subpart, you must include the information in paragraphs (d)(5)(iii)(A) through (N) of this section. This includes periods of startup, shutdown, and malfunction.

(A) The date and time that each malfunction started and stopped.

(B) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(C) The date, time, and duration that each CEMS was out-of-control, including the information in § 63.8(c)(8).

(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(E) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(G) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(H) An identification of each hazardous air pollutant that was monitored at the affected source.

(I) A brief description of the process units.

(J) A brief description of the CMS.

(K) The date of the latest CMS certification or audit.

(L) A description of any changes in CMS, processes, or controls since the last reporting period.

(M) Operating logs and operating scenarios.

(N) The operating day or operating block average values of monitored parameters.

(6) If there were no periods during which the CMS (including CEMS and CPMS) was out-of-control as specified in § 63.8(c)(7), include a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(7) If you invoke the delay of repair provisions in § 63.104(e) for heat exchange systems, you must include the information in § 63.104(f)(2)(i) through (iv) in your next compliance report. If the leak remains unrepaired, you must also submit the information in each subsequent compliance report until the repair of the leak is reported.

(8) Include the information in paragraphs (d)(8)(i) through (iii) of this section, as applicable, for storage tanks subject to the emission limitations and work practice standards in Table 4 of this subpart.

(i) For each storage tank subject to control requirements, include periods of planned routine maintenance during which the control device does not comply with the emission limitation in Table 4 of this subpart.

(ii) For each storage tank controlled with a floating roof, include a copy of the inspection record (required in § 63.1065) when inspection failures occur.

(iii) If you elect to use an extension for a floating roof inspection in accordance with § 63.1063(c)(2)(iv)(B) or (e)(2), include the documentation required by § 63.1063 (c)(2)(iv)(B) or (e)(2).

(9) Include each new operating scenario which has been operated since the time period covered by the last compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the initial compliance report, each operating scenario operated since the compliance date must be submitted.

(10) Include the information specified in § 63.1039(b)(1) through (8) for processes subject to the work practice standards for equipment leaks in Table 5 of this subpart.

(e) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 20 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), or work practice standard in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

§ 63.2525 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (11) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).

(4) Records specified in § 63.1038(b) and (c) for equipment subject to the work practice standards for equipment leaks in Table 5 of this subpart.

(5) Daily schedule or log of each operating scenario.

(6) The information specified in paragraphs (a)(6)(i) and (ii) for batch processes in compliance with a percent reduction emission limit in Table 2 of this subpart and containing process vents controlled to less the percent reduction requirement.

(i) Records of whether each batch operated was considered a standard batch.

(ii) The actual uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(7) The information specified in paragraphs (a)(7)(i) through (iv) of this section for each batch process with uncontrolled HAP emissions less than 10,000 lb/yr.

(i) A record of the number of batches per year.

(ii) A record of whether each batch operated was considered a standard batch.

(iii) The actual uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(iv) Records of the daily 365-day rolling summations of emissions.

(8) Records of planned routine maintenance for control devices used to comply with the percent reduction emission limitations for storage tanks in Table 4 of this subpart.

(9) The maintenance wastewater plan required in Table 12 of this subpart.

(10) A record of each time a safety device is opened to avoid unsafe

conditions in accordance with § 63.2450(c).

(11) Records of the results of each CPMS calibration, validation check, and inspection required by § 63.2475(c)(6) through (8), (d)(4) and (5), (e)(4) through (7), and (f)(3) and (4).

(b) For each CEMS, you must keep the records specified in paragraphs (b)(1) through (4) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(3) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Tables 17, 18, and 19 of this subpart to show continuous compliance with each emission limitation and work practice standard that applies to you.

§ 63.2530 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You can keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.2535 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

(a) *Compliance with other subparts of this part.* If you have an MCPU that is a batch process vent that is part of a CMPU as defined in subparts F and G of this part, you must comply with the emission limitations; work practice standards; and the compliance, monitoring, reporting and recordkeeping requirements for batch process vents in this subpart FFFF, and you must continue to comply with the requirements in subparts F, G, and H of this part that are applicable to the CMPU and associated equipment.

(b) *Compliance with 40 CFR parts 264 and 265, subparts AA, BB, and/or CC.* (1) After the compliance dates specified in § 63.2445, if a control device that you use to comply with this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subpart AA, BB, or CC; or the monitoring and recordkeeping requirements in 40 CFR part 265, subpart AA, BB, or CC; and you comply with the periodic reporting requirements under 40 CFR part 264, subpart AA, BB, or CC that would apply to the device if your facility had final-permitted status, you may elect to comply either with the monitoring, recordkeeping, and reporting requirements of this subpart; or with the monitoring and recordkeeping requirements in 40 CFR part 264 or 265 and the reporting requirements in 40 CFR part 264, as described in this paragraph, which constitute compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. If you elect to comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, you must report the information described in § 63.2520, and you must identify in the Notification of Compliance Status required by § 63.2520 the monitoring, recordkeeping, and reporting authority under which you will comply.

(2) After the compliance dates specified in § 63.2445, if you have an affected source with equipment that is also subject to 40 CFR part 264, subpart BB or to 40 CFR part 265, subpart BB, then compliance with the recordkeeping and reporting requirements of 40 CFR part 264 and/or 265 may be used to comply with the recordkeeping and reporting requirements of this subpart, to the extent that the requirements of 40 CFR part 264 and/or 265 duplicate the requirements of this subpart. You must identify in the Notification of Compliance Status required by § 63.2520 if you will comply with the recordkeeping and reporting authority under 40 CFR part 264 and/or 265.

(c) *Compliance with 40 CFR part 60, subpart Kb.* After the compliance dates specified in § 63.2445, you are in compliance with the provisions of this subpart FFFF for any storage tank that is assigned to an MCPU and that is both controlled with a floating roof and in compliance with the provisions of 40 CFR part 60, subpart Kb. You are in compliance with this subpart FFFF if you have a storage tank with a fixed roof, closed-vent system, and control device in compliance with the provisions of 40 CFR part 60, subpart Kb, except that you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart FFFF. You must also identify in your Notification of Compliance Status required by § 63.2520 which storage tanks are in compliance with 40 CFR part 60, subpart Kb.

(d) *Compliance with subpart I of this part.* After the compliance dates specified in § 63.2445, if you have an affected source with equipment subject to subpart I of this part, you may elect to comply with either the provisions of this subpart FFFF or the provisions of subpart H of this part for all such equipment. You must identify in the Notification of Compliance Status required by § 63.2520 the provisions with which you will comply.

(e) *Compliance with subpart GGG of this part for equipment leaks.* After the compliance dates specified in § 63.2445, if you have an affected source subject to this subpart and you have an affected source with equipment subject to § 63.1255, you may elect to comply with the provisions of this subpart FFFF for all such equipment. You must identify in the Notification of Compliance Status required by § 63.2520 the provisions with which you will comply.

(f) *Compliance with subpart MMM of this part for equipment leaks.* After the compliance dates specified in § 63.2445, if you have an affected source subject to this subpart and you have an affected source with equipment subject to § 63.1363, you may elect to comply with the provisions of this subpart FFFF for all such equipment. You must identify in the Notification of Compliance Status required by § 63.2520 the provisions with which you will comply.

(g) *Compliance with subpart GGG of this part for wastewater.* After the compliance dates specified in § 63.2445, if you have an affected source subject to this subpart and you have an affected source that generates wastewater streams subject to § 63.1256, you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams. You must identify in the Notification of Compliance Status required by § 63.2520 the provisions with which you will comply.

(h) *Compliance with subpart MMM of this part for wastewater.* After the compliance dates specified in § 63.2445, if you have an affected source subject to this subpart, and you have an affected source that generates wastewater streams subject to § 63.1362(d), you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams (except that the 99 percent reduction requirement for streams subject to § 63.1362(d)(10) still applies). You must identify in the Notification of Compliance Status required by § 63.2520 the provisions with which you will comply.

(i) *Compliance with other regulations for wastewater.* After the compliance dates specified in § 63.2445, if you have an affected wastewater stream that is also subject to provisions in 40 CFR parts 260 through 272, you may elect to determine whether this subpart or 40 CFR parts 260 through 272 contain the more stringent control requirements (e.g., design, operation, and inspection requirements for waste management units; numerical treatment standards; etc.) and the more stringent testing, monitoring, recordkeeping, and reporting requirements. Compliance with provisions of 40 CFR parts 260 through 272 that are determined to be more stringent than the requirements of this subpart constitute compliance with this subpart. For example, provisions of 40 CFR parts 260 through 272 for treatment units that meet the conditions specified in § 63.138(h) constitute compliance with this subpart. In the Notification of Compliance Status required by § 63.2520, you must identify the more stringent provisions of 40 CFR parts 260 through 272 with which you will comply. You must also identify in the Notification of Compliance Status required by § 63.2520 the information and procedures that you used to make any stringency determinations. If you do not elect to determine the more stringent requirements, you must comply with both the provisions of 40 CFR parts 260 through 272 and the provisions of this subpart.

(j) *Compliance with 40 CFR part 60, subparts III, NNN, and RRR.* After the compliance dates specified in § 63.2445, if you have an MCPU that contains equipment subject to the provisions of this subpart that are also subject to the provisions of 40 CFR part 60, subpart III, NNN, or RRR, you may elect to apply this subpart to all such equipment in the MCPU. If you elect this method of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of applicability and compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph, will constitute compliance with 40 CFR part 60, subpart III, NNN, or RRR, as applicable.

§ 63.2540 What parts of the General Provisions apply to me?

Table 21 of this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.2545 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the US EPA, or a delegated authority such as your State, local, or tribal agency. If the US EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your US EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of US EPA and are not delegated to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows:

(1) Approval of alternatives to the non-opacity emission limitations and work practice standards in § 63.2450(a) under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.2550 What definitions apply to this subpart?

(a) The following terms used in this subpart and in referenced subparts are defined in § 63.101: heat exchange system, and maintenance wastewater.

(b) The following terms used in this subpart and in referenced subparts are defined in § 63.111: annual average concentration, annual average flow rate, automated monitoring and recording system, boiler, car-seal, closed-vent system, combustion device, container, cover, duct work, enhanced biological treatment system, flow indicator, halogenated vent stream, hard-piping, individual drain system, junction box, oil-water separator, point of determination, primary fuel, process heater, residual, sewer line, surface impoundment, Table 8 compound, Table 9 compound, total resource effectiveness (TRE) index value, treatment process, wastewater tank, and water seal controls.

(c) The following terms used in this subpart and in referenced subparts are defined in § 63.1020: connector, double block and bleed system, in gas and vapor service, in heavy liquid service, in light liquid service, in liquid service, in organic HAP service, in vacuum service, instrumentation system, liquids dripping, nonrepairable, open-ended valve or line, pressure relief device or valve, repaired, and screwed (threaded) connector.

(d) The following terms used in this subpart and in referenced subparts are defined in § 63.1601: external floating roof (EFR), flexible fabric sleeve seal, floating roof, initial fill or initial filling, internal floating roof (IFR), liquid-mounted seal, mechanical shoe seal or metallic shoe, and vapor-mounted seal.

(e) The following terms used in this subpart and in referenced subparts are defined in § 63.1251: actual HAP emissions, air pollution control device (or control device), batch emission episode, batch operation or batch process, block, cleaning operation, consumption, fixed roof, hydrogen halides and halogens, nondedicated formulation, process condenser, production-indexed HAP consumption factor, production-indexed VOC consumption factor, total organic compounds (TOC), uncontrolled HAP emissions, and unit operation.

(f) All terms used in this subpart that are not listed in paragraphs (a) through (e) of this section are defined in the CAA, in 40 CFR 63.2, the General Provisions of this part, and in this section as follows:

Bulk loading means the loading, into a tank truck or rail car, of liquid products or isolated intermediates that are materials described in § 63.2435(b) and that contain one or more of the organic HAP, as defined in section 112 of the CAA, from a loading rack. A loading rack is the system used to fill tank trucks and railcars at a single geographic site.

Closed biological treatment process means a tank or surface impoundment where biological treatment occurs and air emissions from the treatment process are routed to a control device by means of a closed-vent system or by means of hard-piping. The tank or surface impoundment has a fixed roof, as defined in § 63.1251, or a floating flexible membrane cover that meets the requirements specified in § 63.134.

Construction means the onsite fabrication, erection, or installation of an affected source or MCPU. Addition of new equipment to an MCPU subject to existing source standards does not constitute construction, but it may constitute reconstruction of the affected source or MCPU if it satisfies the definition of reconstruction in § 63.2440 (f) or (g).

Consumption means the quantity of all HAP raw materials entering a process in excess of the theoretical amount used as reactant, assuming 100 percent stoichiometric conversion. The raw materials include reactants, solvents, and any other additives. If a HAP is generated in the process as well as added as a raw material, consumption includes the quantity generated in the process.

Dedicated MCPU means an MCPU that is composed of equipment that is used to manufacture the same product for a continuous period of 6 months or greater. The MCPU includes any shared storage tanks that are determined to belong to the MCPU according to the procedures in § 63.2440(c).

Dense gas system means a conveyance system operated to limit oxygen levels below 12 percent.

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 emission limitation (including any operating limit) or work practice standard;

(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 emission limitation (including any operating limit) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

Emission limitation means any emission limit or operating limit.

Family of materials means grouping of materials with the same basic composition produced using the same basic feedstocks, but that may vary, for example, by molecular weight, functional group, or manufacturing equipment configuration. Examples of families of materials include, but are not limited to, alkyd resins, polyester resins, and synthetic fatty acids.

Isolated intermediate is obtained as the product of a process. An isolated intermediate is usually a product of a chemical synthesis, fermentation, or biological extraction process; several different isolated intermediates may be produced in the manufacture of a product. An isolated intermediate is stored before subsequent processing. Storage occurs at any time the intermediate is placed in equipment used solely for storage, such as drums, totes, day tanks, and storage tanks. The storage of an isolated intermediate marks the end of a process.

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tons/yr, before control.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the MCPU into an individual drain system in preparation for or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MCPU for repair. Wastewater from cleaning operations is not considered maintenance wastewater.

Miscellaneous organic chemical manufacturing process means all equipment which collectively function to produce a product or isolated intermediate that are materials described in § 63.2435(b). A process may consist of one or more unit operations. For the purposes of this subpart, process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. Cleaning operations conducted are considered part of the process. Nondedicated solvent recovery operations located within a contiguous area within the affected source are considered single processes. A storage tank that is used to accumulate used solvent from multiple batches of a single process for purposes of solvent recovery does not represent the end of the process. Nondedicated formulation operations (not including mixing, as defined in this section) occurring within a contiguous area are considered a single process that is used to formulate numerous materials and/or products. Quality assurance and quality control laboratories are not considered part of any process. Ancillary activities are not considered a process or part of any process. Ancillary activities include boilers and incinerators (not used to comply with the emission limitations in Tables 1 through 4 of this subpart), chillers and 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 isolated intermediate.

Mixing means an operation in which a material is combined with one or more materials at ambient temperature without a chemical reaction.

Nondedicated solvent recovery means a recovery device that receives material from more than one MCPU.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source or MCPU to which the records pertain, or storage in central files elsewhere at the major source.

Open biological treatment process means a biological treatment process that is not a closed biological treatment process as defined in this section.

Operating scenario means, for the purposes of reporting and recordkeeping, any specific operation of an MCPU and includes for each process:

(1) A description of the process and the type of process equipment used;

(2) An identification of related process vents and their associated emissions episodes and durations, wastewater point of determination (POD), and storage tanks;

(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent;

(4) The control or treatment devices used, as applicable, including a description of operating and/or testing conditions for any associated control device;

(5) The process vents, wastewater POD, and storage tanks (including those from other processes) that are simultaneously routed to the control or treatment device(s);

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control or treatment device;

(7) Calculations and engineering analyses required to demonstrate compliance; and

(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (5) of this definition, constitutes a new operating scenario.

Predominant HAP means as used in calibrating an analyzer, the single organic HAP that constitutes the largest percentage of the total HAP in the analyzed gas stream, by volume.

Process vent means a vent from a unit operation or vents from multiple unit operations within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Examples of process vents include, but are not limited to, vents on condensers used for product recovery, bottom receivers, surge control vessels, reactors, filters, centrifuges, and process tanks. Emission streams that are undiluted and uncontrolled containing less than 50 ppmv HAP, as determined through process knowledge that no HAP are present in the emission stream or using an engineering assessment as discussed in § 63.1257(d)(2)(ii), test data using Methods 18 of 40 CFR part 60, appendix A, or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part, are not considered process vents. Process vents do not include vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the emission limitations and work practice standards in Tables 3 through 5 of this subpart.

Recovery device means an individual unit of equipment used for the purpose of recovering chemicals from process vent streams for reuse in a process at the affected source and from wastewater 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. To be a recovery device for a wastewater stream, a decanter and any other equipment based on the operating principle of gravity separation must receive only two-phase liquid streams.

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

Shutdown means the cessation of operation of a continuous process for any purpose. Shutdown also means the cessation of a batch process or any related individual piece of equipment required or used to comply with this subpart as a result of a malfunction or for replacement of equipment, repair, or any other purpose not excluded from this definition. Shutdown also applies to emptying and degassing storage vessels. Shutdown does not apply to cessation of a batch process at the end of a campaign, for routine maintenance, for rinsing or washing of equipment between batches, or other routine operations.

Small control device means a control device that controls total HAP emissions of less than 10 tons/yr, before control.

Standard batch means a batch process operated within a range of operating conditions that are documented in an operating scenario. Emissions from a standard batch are based on the operating conditions that result in highest emissions. The standard batch defines the uncontrolled and controlled emissions for each emission episode defined under the operating scenario.

Startup means the setting in operation of a continuous process unit for any purpose the first time a new or reconstructed batch process unit begins production; or, for new equipment added, including equipment used to comply with this subpart, the first time the equipment is put into operation; or for the introduction of a new product/process, the first time the product or process is run in equipment. For batch process units, startup does not apply to the first time the equipment is put into operation at the start of a campaign to produce a product that has been produced in the past, after a shutdown for maintenance, or when the equipment is put into operation as part of a batch within a campaign. For equipment subject to the work practice standards in Table 5 of this subpart, startup means the setting in operation of a piece of equipment or a control device that is subject to this subpart.

Storage tank means a tank or other vessel that is used to store organic liquids that contain one or more HAP as raw material feedstocks. Storage tank also means a tank or other vessel in a tank farm that receives and accumulates used solvent from multiple batches of a process or processes for purposes of solvent recovery. 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;

(3) Vessels storing organic liquids that contain HAP only as impurities;

(4) Wastewater storage tanks; and

(5) Process tanks (including product tanks and isolated intermediate tanks).

Supplemental gases are any gaseous streams that are not defined as process ents, or closed-vent systems from wastewater management and treatment units, storage tanks, or equipment components and that contain less than 50 ppmv TOC, as determined through process knowledge, that are introduced into vent streams or manifolds. Air required to operate combustion device burner(s) is not considered supplemental gas.

System flowrate means the flowrate of gas entering the control device.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream, with the concentrations expressed on a carbon basis.

Waste management unit means the equipment, structure(s), and/or device(s) used to convey, store, treat, or dispose of wastewater streams or residuals. Examples of waste management units include wastewater tanks, air flotation units, surface impoundments, containers, oil-water or organic-water separators, individual drain systems, biological wastewater treatment units, waste incinerators, and organic removal devices such as steam and air stripper units, and thin film evaporation units. If such equipment is used for recovery, then it is part of a miscellaneous organic chemical manufacturing process and is not a waste management unit.

Wastewater stream means water that is discarded from an MCPU through a single POD and that contains either: an annual average concentration of Table 9 compounds (as defined in § 63.111) of at least 5 ppmw and has an annual average flow rate of 0.02 liters per minute or greater, or an annual average concentration of Table 9 compounds (as defined in § 63.111) of at least 10,000 ppmw at any flow rate. For the purposes of this subpart, noncontact cooling water is not considered a wastewater stream.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act (CAA).

Tables to Subpart FFFF of Part 63

As required in §§ 63.2450(a)(1) and (f), 63.2460(a)(2), and 63.2500(b)(1), you must meet each emission limitation and work practice standard in the following table that applies to your continuous process vents:

TABLE 1 TO SUBPART FFFF.—EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS FOR CONTINUOUS PROCESS VENTS

For * * *	You must * * *	And you must * * *
1. Each continuous process vent with a TRE: ≤2.6 at an existing source; or ≤5.0 at a new or reconstructed source.	Use a control device to reduce HAP emissions by ≥98 percent by weight; or use a control device to reduce emissions to an outlet total organic HAP or TOC concentraiton ≤20 ppmv and an outlet hydrogen halide and halogen concentration ≤ppmv, both corrected for supplemental gases as specified in § 63.2470(g); or reduce HAP emissions using a flare that meets the performance requirements specified in § 63.11(b), but you may not use a flare for halogenated vent streams; or reduce HPA emissions using a control device specified in § 63.2455(f); or achieve and maintain a TRE index value >2.6 for existing sources and 5.0 for new sources at the outlet of the final recovery device, or prior to release of the vent streasm to the atmosphere if no recovery device is present.	Route the vent stream to the control device through a closed-vent system; and comply with the work practice standards for closed-vent systems specified in Table 5 of this subpart; and comply with the emission limitations in Table 7 of this subpart, if you use a combustion device to control halogenated vent streams. Determine whether a vent stream is halogenated according to § 63.2460(b).
2. Each continuous process vent with a TRE >2.6 but ≤5.0 at an existing source.	Maintain the TRE >2.6 at the outlet of the final recovery device, or prior to release of the vent stream to the atmosphere if no recovery device is present.	Non applicable.
3. Each continuous process vent with a TRE >5.0 but ≤8.0 at a new or reconstructed source.	Maintain the TRE >5.0 at the outlet of the final recovery device, or prior to release of the vent stream to the atmosphere if no recovery device is present.	Non applicable

As required in §§ 63.2450(a)(2) and (f), 63.2495(b), 63.2500(b)(1), and 63.2505(a)(4), you must meet each emission limitation and work practice standard in the following table that applies to your batch process vents:

TABLE 2 TO SUBPART FFFF.—EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS FOR BATCH PROCESS VENTS

For * * *	You must * * *	And you must * * *
1. The sum of all batch process vents within a process if the total uncontrolled HAP emission are <10,000 lb/yr at an existing source; or <3,000 lb/yr at a new or reconstruced source.	Maintain annual emissions below the applicable mass limits.	Non applicable.
2. The sum of all batch process vents within a process with uncontrolled total HAP emissions ≥10,000 lb/yr at an existing source; or ≥3,000 lb/yr at a new or reconstructed source.	Reduce HAP emissions from the sum of all batch process vents within the process by ≥98 percent by weight; or reduce HAP emissions from the sum of all batch process vents within the process by ≥95 percent by weight using recovery devices; or control emissions from any batch vents within the process in accordance with any combination of the following, and reduce HAP emissions from the sum of all the remaining batch vents within the process by ≥98 percent by weight: reduce HAP emissions using a flare that meets the performance requiremetns specified in § 63.11(b), but you may not use a flare for halogenated vent streams; or reduce emissions to an outlet total organic HAP or TOC concentration ≤20 ppmv and an outlet hydrogen halide and halogen concentration ≤20 ppmv, both corrected for supplemental gases as specified in § 63.2470(g); or reduce HAP emissions using a control device specified in § 63.2455(f).	For each vent stream that you control, route the vent stream through a closed-vent system to the control device; and comply with the work practice standards for closed-vent systems specified in Table 5 of this subpart; and comply with the emission limitations in Table 7 of this subpart, if you use a combustion device to control halogenated vent streams. Determine whether a vent stream is halogenated according to § 63.2460(b).

As required in §§ 63.2450(a)(3) and (f), 63.2460(c), 63.2495(b), and 63.2500(b)(1), you must meet each emission limitation and work practice standard in the following table that applies to your wastewater streams, waste management units, and liquid streams in open systems within an MCPU:

TABLE 3 TO SUBPART FFFF.—EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS FOR WASTEWATER STREAMS, WASTE MANAGEMENT UNITS, AND LIQUID STREAMS IN OPEN SYSTEMS WITHIN AN MCPU

For each * * *	You must * * *	According to the following additional options and exceptions * * *
1. Waste management unit (i.e., wastewater tank, surface impoundment container, individual drain system, and oil-water separator) used to convey, store, treat, or dispose of an affected wastewater stream or residual.	Suppress HAP emissions by complying with the requirements specified in §§ 63.132(a)(2)(i) and 63.133 through 63.137; and route vent streams from the waste management units through a closed-vent system to any of the following: A flare that meets the performance requirements of § 63.11(b), except that you may not vent a halogenated vent stream to a flare, or a control device that reduces HAP emissions by ≥95 percent by weight; or a control device that reduces emissions to an outlet total organic HAP or TOC concentration ≥20 ppmv; or a combustion device with a minimum residence time of 0.5 seconds at a minimum temperature of 760°C; or a control device specified in § 63.2455(f); and comply with the work practice standards for closed-vent systems specified in Table 5 of this subpart.	For any halogenated streams that are controlled with a combustion device, also comply with the emission limitations in Table 7 of this subpart. Determine whether a vent stream is halogenated according to § 63.2460(b); and you must correct outlet concentrations to account for supplemental gases using the procedures specified in § 63.2470(g); and you may not comply with the outlet concentration standard for surface impoundments and containers.
2. Affected wastewater stream at an existing source.	Treat the wastewater to remove or destroy HAP compounds listed in Table 9 of subpart G using one of the options specified in § 63.138(b)(1), (d), (e), (f), (g), (h), or (i).	The treatment options may be used in combination for different wastewater streams and/or for different compounds in the same wastewater streams, except where otherwise provided in § 63.138; you may use a series of treatment processes in accordance with the provisions in § 63.138(a)(7); and you need not cover and vent an open biological treatment process to a control device.
3. Affected wastewater stream at a new or reconstructed source.	Treat the wastewater to remove or destroy HAP compounds listed in Table 9 of subpart G using one of the options specified in § 63.138(b)(1), (d), (e), (f), (g), (h), or (i); and treat the wastewater to remove or destroy HAP compounds listed in Table 8 of subpart G using one of the options specified in § 63.138(c)(1), (d), (e), (f), (g), (h), or (i).	The treatment options may be used in combination for different wastewater streams and/or for different compounds in the same wastewater streams, except where otherwise provided in § 63.138; and you may use a series of treatment processes in accordance with the provisions in § 63.138(a)(7); and you need not cover and vent an open biological treatment process to a control device.
4. Residual removed from an affected wastewater stream.	Control HAP emissions by complying with the requirements in entry 1. of this table and in § 63.138(k).	Non applicable.
5. Maintenance wastewater containing HAP listed in Table 9 of subpart G of this part.	Develop and implement a maintenance wastewater plan according to § 63.105.	Non applicable.
6. Liquid stream in an open system within an MCPU.	Comply with the requirements in § 63.149, except: references in § 63.149 to a ''chemical manufacturing process unit'' means an ''MCPU as defined in § 63.2435(b)'' for the purposes of this subpart; and references to § 63.100(f) and references to subparts F, G, and H of this part do not apply for the purposes of this subpart; and when § 63.149 refers to the definition of new sources in 40 CFR 63.100(l)(1) or (2), the definitions for new and reconstructed sources in § 63.2440 apply for the purposes of this subpart; and references in § 63.149 to fuel gas systems do not apply for the purposes of this subpart; and when Table 35 of subpart G refers to § 63.139(c), references to entry d. in this table apply for the purposes of this subpart.	Non applicable.

As required in §§ 63.2450(a)(4), (f), and (i), 63.2495(b), and 63.2500(b)(1) and (c)(1)(vi), you must meet each emission limitation and work practice standard in the following table that applies to your storage tanks: