ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[Docket ID No. OAR–2003–0121; FRL–7551–3]

RIN 2060–AE82

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

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical manufacturing facilities. The final rule establishes emission limits and work practice standards for new and existing miscellaneous organic chemical manufacturing process units, wastewater treatment and conveyance systems, transfer operations, and associated ancillary equipment and implements section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet hazardous air pollutants (HAP) emission standards reflecting application of the maximum achievable control technology (MACT). The HAP emitted from miscellaneous organic chemical manufacturing facilities include toluene, methanol, xylene, hydrogen chloride, and methylene chloride. Exposure to these substances has been demonstrated to cause adverse health effects such as irritation of the lung, eye, and mucous membranes, effects on the central nervous system, and cancer. We do not have the type of current detailed data on each of the facilities and the people living around the facilities covered by the final rule for this source category that would be necessary to conduct an analysis to determine the actual population exposures to the HAP emitted from these facilities and the 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, and the final rule reduces emissions, subsequent exposures will be reduced. The final rule will reduce HAP emissions by 16,800 tons per year for existing facilities that manufacture miscellaneous organic chemicals.

DATES: This rule is effective November 10, 2003.

ADDRESSES: Docket No. OAR–2003–0121 and A–96–04 are located at the Environmental Protection Agency, Office of Air & Radiation Docket & Information Center (6102T), 1301 Constitution Avenue, NW., Room B108, Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Mr. Randy McDonald, Organic Chemicals Group (C504–04), Emission Standards Division, U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541–5402; electronic mail (e-mail) address *mcdonald.randy@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	NAICS*	Examples of regulated entities
Industry	3251, 3252, 3253, 3254, 3255, 3256, and 3259, with several exceptions..	Producers of specialty organic chemicals, explosives, certain polymers and resins, and certain pesticide intermediates.

*North American Industry Classification System.

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 of the final rule. 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.

Docket. We have established official public dockets for this action under Docket ID No. OAR–2003–0121 and A–96–04. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include confidential business information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Air and Radiation Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue, NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket Center is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

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

Judicial Review. Under CAA section 307(b)(1) of the CAA, judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit January 9, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2) of the CAA, the requirements

established by the final rule may not be challenged separately in civil or criminal proceedings brought to enforce these requirements.

Background Information Document. The EPA proposed the NESHAP for miscellaneous organic chemical manufacturing on April 4, 2002 (67 FR 16154), and received 53 comment letters on the proposal. A background information document (BID) (''National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Miscellaneous Organic Chemical Manufacturing Industry, Summary of Public Comments and Responses,'') containing EPA's responses to each public comment is available in Docket ID No. OAR–2003–0121.

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

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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. A major source of HAP is a stationary source or group of stationary sources located within a contiguous area under common control that has the potential to emit greater than 9.1 megagrams per year (Mg/yr) (10 tons per year (tpy)) of any one HAP or 22.7 Mg/yr (25 tpy) 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 non-air 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 five 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, non-air quality health and environmental impacts, and energy requirements.

C. What Is the History of the 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 that 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.

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. Today's final rule reflects the subsumption of the following source categories into a new source category called Miscellaneous Organic Chemical Manufacturing: 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, OBPA/1,3-diisocyanate production, alkyd resins production, polyester resins production, polyvinyl alcohol production, polyvinyl acetate emulsions production, polyvinylbutyral production, polymerized vinylidene chloride production, polymethylmethacrylate production, maleic anhydride copolymers production, ammonium sulfate production—caprolactam by-product plants, and quaternary ammonium

compounds production. Along with these 22 source categories, the Miscellaneous Organic Chemical Manufacturing source category is also defined to include other organic chemical manufacturing processes which are not being covered by any other MACT standards.

Today's action establishes final standards for miscellaneous organic chemical manufacturing (40 CFR part 63, subpart FFFF).

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

The CAA was created, in part, ''to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of the population'' (see section 101(b) of the CAA). These NESHAP will protect public health by reducing emissions of HAP from miscellaneous organic chemical manufacturing facilities.

Miscellaneous organic chemical manufacturing facilities emit an estimated 21,900 Mg/yr (24,100 tpy) of organic and inorganic HAP. Organic HAP include toluene, methanol, xylene, methyl ethyl ketone, ethyl benzene, methyl isobutyl ketone, and vinyl acetate. Inorganic HAP emitted by this industry include hydrogen chloride (HCl) and some HAP metals in the form of particulate matter (PM). The final rule reduces HAP emissions from miscellaneous organic chemical manufacturing facilities by 68 percent. As a result of controlling these HAP, the final NESHAP will also reduce emissions of volatile organic compounds (VOC). A summary of the potential health effects caused by exposure to these pollutants is presented in the preamble to the proposed rule (67 FR 16154).

E. How Did We Develop the Final Rule?

We proposed the NESHAP for the miscellaneous organic chemical manufacturing source category on April 4, 2002 (67 FR 16154) and provided an 85-day comment period. We received a total of 55 comment letters. A copy of each of the comment letters is available in Docket No. OAR–2003–0121 or A–96–04.

The final rule reflects full consideration of all the comments we received on the proposed rule, as well as our reassessment of certain data in the rulemaking record. Major public comments on the proposed subpart FFFF, along with our responses to the comments, are summarized in section IV of this preamble. A detailed response to all comments is included in the Background Information Document for the promulgated standards (Docket No. OAR–2003–0121). Comments on the proposed miscellaneous coating manufacturing NESHAP will be summarized and discussed in the subpart HHHHH promulgation package.

II. Summary of the Final Rule

A. What Are the Affected Sources and Emission Points?

Emission points identified from miscellaneous organic chemical manufacturing production include process vents, storage tanks, equipment leaks, transfer operations, and wastewater collection and treatment systems. The affected source subject to this subpart 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 that are located at a major source of HAP as defined in section 112(a) of the CAA. An MCPU includes a miscellaneous organic chemical manufacturing process, as defined in 40 CFR 63.2550, and must meet the following criteria: (1) It manufactures any material or family of materials described in 40 CFR 63.2435(b)(1); it processes, uses, or produces HAP described in 40 CFR 63.2435(b)(2); and, except for certain process vents that are part of a chemical manufacturing process unit, as identified in 40 CFR 63.100(j)(4), the MCPU is not part of an affected source under another subpart of 40 CFR part 63. The MCPU is defined according to the equipment used to make the subject material, and it includes storage tanks that are associated with the process.

New sources are created by reconstructing existing sources, constructing new ''greenfield'' facilities, or constructing an addition to an existing source that is a dedicated MCPU and has the potential to exceed 10 tpy of an individual HAP or 25 tpy of combined HAP. Reconfiguration of existing equipment does not constitute ''construction.''

B. What Are the Emission Limits and Work Practice Standards?

The final rule regulates HAP emissions from miscellaneous organic chemical manufacturing facilities that are determined to be major sources. The standards apply to existing sources as well as new sources.

Process Vents

The final standards for existing batch and continuous process vents are set at a floor level of control and include requirements for organic and inorganic HAP. For batch process vents, the final standards require you to reduce uncontrolled organic 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 is required for processes that are limited to uncontrolled emissions of 4,540 kg/yr (10,000 lb/yr) or less, as calculated on a rolling 365-day basis. A second control option for batch vents is to reduce the sum of all batch process vents within the process by 95 percent using recovery devices.

For continuous process vents, the final standards require control of vents determined to have a total resource effectiveness (TRE) index equal to or less than 1.9. The standards 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 less than 1.9, or to reduce the outlet total organic compound (TOC) concentration to 20 parts per million by volume (ppmv) or less. For continuous process vents, we reference the process vent standards contained in 40 CFR part 63, subpart SS.

For inorganic HAP, we set the standards based on the floor and made no distinction between batch and continuous streams. The standards for hydrogen halide and halogen HAP (*i.e.*, HCl, hydrogen fluoride (HF), and chlorine ($C1_2$)) were determined to be 99 percent control of hydrogen halide and halogen HAP from the sum of all process vents in processes with uncontrolled hydrogen halide and halogen HAP emissions equal to or greater than 1,000 lb/yr. The final rule also requires control of hydrogen halide and halogen HAP emissions generated by the combustion control of halogenated streams, which are defined by a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour (kg/hr) or more. Specifically, hydrogen halide and halogen HAP emissions must be reduced after the combustion device by 99 percent, to no more than 0.45 kg/hr, or to no more than 20 ppmv. Alternatively, the halogen atom mass rate before the combustion device may be reduced to no more than 0.45 kg/hr or to no more than 20 ppmv. The MACT floor for PM HAP emissions from process vents at existing sources is no

emissions reduction, and we did not set a standard above the floor.

We defined the term ''process'' to include all equipment that collectively function to produce a material or family of materials that are covered by the source category. For batch process vents, we also established an equivalent mass cutoff of 200 lb/yr in the final rule that corresponds to the 50 ppmv concentration.

The new source standards for batch and continuous process vents follow the same formats as described above. However, some of the applicability triggers are more stringent. All batch process vents within a process for which the uncontrolled organic HAP emissions from batch process 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. For inorganic HAP, the standards for new sources are identical to the standards for existing sources. The new source standard for PM HAP emissions from process vents is 97 percent control for each process with uncontrolled PM HAP emissions greater than or equal to 400 lb/yr. Control requirements for halogenated streams are also the same as for existing sources.

Storage Tanks

The final rule requires 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 standards 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 is to use a floating roof or to reduce the organic HAP emissions by 95 percent by weight or more. We also concluded in a revised analysis that for small storage tanks (capacities <10,000 gal), that there is a ''no emission reduction'' MACT floor, and we did not specify a standard because the total impacts of a more stringent regulatory alternative were found to be unreasonable. Additionally, we concluded that the new source MACT floor as proposed is appropriate (95 percent control of all tanks with capacities of 10,000 gal and storing material with a HAP partial pressure of 0.1 psia) for all tanks.

Wastewater

The final rule requires management and treatment of Group 1 wastewater streams and residuals removed from Group 1 wastewater streams to be consistent with the requirements contained in 40 CFR part 63, subpart G. For the purposes of 40 CFR part 63, subpart FFFF, the characteristics of Group 1 wastewater streams are defined with the following characteristics at the point of determination (POD):

- Process wastewater containing partially soluble HAP at an annual average concentration greater than 50 parts per million by weight (ppmw) and a combined total annual average concentration of soluble and partially soluble HAP of 10,000 ppmw or greater at any flowrate.
- Process wastewater containing partially soluble HAP at an annual average concentration greater than 50 ppmw and a combined total annual average concentration of soluble and partially soluble HAP of 1,000 ppmw or greater at an annual average flowrate of 1 liter per minute (lpm) or greater.
- Process wastewater containing partially soluble HAP at an annual average concentration of 50 ppmw or less and soluble HAP at an annual average concentration of 30,000 ppmw or greater and a total annual load of soluble HAP of 1 tpy or greater.

At new sources, the 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 is also required for the following streams at their POD:

- Process wastewater containing an annual average HAP concentration exceeding 10 ppmw of compounds listed in Table 8 of 40 CFR part 63, subpart G, with annual average flowrate greater than 0.02 lpm.
- Process wastewater containing partially soluble HAP at an annual average concentration of 50 ppmw or less and soluble HAP at an annual average concentration of 4,500 ppmw or greater and a total annual load of soluble HAP of 1 tpy or greater.

The final rule also requires compliance with the requirements of 40 CFR 63.105 for maintenance wastewater streams, and compliance with the requirements in 40 CFR 63.149 for liquid streams in open systems within an MCPU.

Transfer Racks and Ancillary Sources

The final standards for transfer racks, maintenance wastewater, and heat exchange systems are unchanged from the proposal, and they are identical to the requirements in the hazardous organic NESHAP (HON). For transfer operations, we are requiring 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). For each transfer rack that meets these thresholds, total organic HAP emissions must be reduced by 98 percent by weight or more, or the displaced vapors must be returned to the process or originating container. For maintenance wastewater, you must prepare a plan for minimizing emissions. For heat exchange systems, you must implement a monitoring program to detect leaks into the cooling water.

Equipment Leaks

For equipment leaks, the final rule requires implementation of a leak detection and repair (LDAR) program. For processes with no continuous process vents, you must implement the program in 40 CFR part 63, subpart TT. For processes with at least one continuous process vent, you must implement the program in 40 CFR part 63, subpart UU. Alternatively, you may elect to comply with the requirements in 40 CFR part 65, subpart F (*i.e.*, the Consolidated Federal Air Rule).

Pollution Prevention

The final rule also includes a pollution prevention alternative for existing sources that meets the control level of the MACT floor and may be implemented 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 or for new sources. 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.

Emissions Averaging Provisions

The final rule incorporates the emissions averaging provisions in 40 CFR part 63, subpart G (the HON), with some changes to accommodate batch process vents. For example, the final rule specifies that uncontrolled emissions from batch process vents are to be calculated using the procedures in 40 CFR part 63, subpart GGG, and performance testing must be conducted under worst case conditions, as defined in subpart GGG.

Alternative Standard

The final rule contains an alternative standard for process vents and storage tanks. When emissions are controlled using combustion control devices, the alternative standard requires control to an undiluted TOC concentration of 20 ppmv or less and an undiluted hydrogen halide and halogen HAP concentration of 20 ppmv or less. For noncombustion control devices, the TOC concentration and total hydrogen halide and halogen HAP concentration both must be reduced to 50 ppmv or less. Continuous monitoring of outlet TOC and total hydrogen halide and halogen HAP is required for compliance with this alternative standard.

C. What Are the Testing and Initial Compliance Requirements?

Process Vents

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

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. For each continuous process vent with a TRE less than or equal to 1.9, compliance with the percent reduction emission limitation must be verified through performance testing. For batch process vents, initial compliance demonstrations must be conducted in accordance with the requirements in the Pharmaceuticals Production NESHAP (40 CFR part 63, subpart GGG). Specifically, performance tests are required for control devices handling greater than 9.1 Mg/yr (10 tpy) of HAP, while either engineering assessments or performance tests are allowed for control devices with lower loads and for condensers. Performance tests must be conducted under worst-case conditions if the control device is used to control emissions from batch process vents.

Storage Tanks, Transfer Racks, and Wastewater

To demonstrate initial compliance with emission limits and work practice standards for storage tanks, transfer racks, and wastewater systems, the final rule allows you to either conduct performance tests or document compliance using engineering calculations. The initial compliance procedures are specified in 40 CFR part 63, subpart SS (National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process), subpart WW (National Emission Standards for Storage Vessels (Tanks—Control Level 2)), and subpart G (the HON), for control devices used to reduce emissions from storage tanks and transfer racks, storage tanks controlled with floating roofs, and wastewater sources, respectively.

D. What Are the Continuous Compliance Requirements?

The final rule requires monitoring, inspections, and calculations to demonstrate ongoing compliance. Typically, continuous monitoring (*i.e.*, every 15 minutes) of emissions or operating parameters is required when using a control device or wastewater treatment device. If operating parameters are monitored, operating limits must be established during the initial compliance demonstration. Periodic inspections are required for emission suppression equipment on waste management units and floating roofs on storage tanks and wastewater tanks. For processes that have Group 2 batch process vents (*i.e.*, total organic HAP emissions less than 10,000 lb/yr), you must track the number of batches produced to show that emissions remain below the Group 1 threshold.

Continuous monitoring requirements for control devices are specified in 40 CFR part 63, subpart SS, with some exceptions specified in the final rule. For example, the final rule requires that monitoring data during periods of startup, shutdown, and malfunction (SSM) be used in daily averages, whereas subpart SS excludes such data from averages. For batch process vents, you may request approval to set operating limits for individual or groups of emission episodes using the results of the performance test and applicable supplementary information. To use this approach, you must provide rationale for your selected operating limits in your precompliance report. As an alternative to daily averaging, the final rule also allows averaging over a batch or segment of a batch for control devices used to reduce emissions from batch process vents. For control devices that do not control more than 1 tpy of HAP emissions, only a daily verification that the control device is operating as designed is required.

Inspections for floating roofs must be conducted in accordance with 40 CFR part 63, subpart WW. All monitoring and inspection requirements for wastewater systems must be conducted in accordance with 40 CFR part 63, subpart G.

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

Recordkeeping and reporting requirements are outlined in the General Provisions to part 63 (40 CFR part 63, subpart A), as well as the requirements in referenced subpart G (the HON), subpart SS (National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process), subpart TT (National Emission Standards for Equipment Leaks—Control Level 1), subpart UU (National Emission Standards for Equipment Leaks—Control Level 2 Standards), and subpart WW (National Emission Standards for Storage Vessels—Control Level 2). The sections of subpart A that apply to the final rule are designated in Table 12 to subpart FFFF of 40 CFR part 63. Additional recordkeeping and reporting requirements are specific to the final rule. 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 tpy of HAP emissions. The final rule also references the SSM recordkeeping and reporting requirements contained in 40 CFR part 63, subpart SS. Under these provisions, SSM records are required only for events during which excess emissions occur or events when the startup, shutdown, and malfunction plan (SSMP) was not followed.

Consistent with the General Provisions, you must submit an initial notification, a notification of compliance status (NOCS) report, and compliance reports. The initial notification is required within 120 days of the effective date of 40 CFR part 63,

subpart FFFF. That brief notification 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 report, which is due 150 days after the compliance date of the NESHAP, is a comprehensive report that describes the affected source and the strategy being used to comply. The NOCS report is also an important aspect of the title V permitting strategy for sources subject to subpart FFFF. Compliance reports are required every 6 months.

III. Summary of Environmental, Energy, and Economic Impacts

A. What Are the Air Emission Reduction Impacts?

We estimate nationwide baseline HAP emissions from miscellaneous organic chemical manufacturing sources to be 21,900 Mg/yr (24,200 tpy). We project that the final rule will reduce HAP emissions by about 15,200 Mg/yr (16,800 tpy). Because many of the HAP emitted by miscellaneous organic chemical manufacturing facilities are also VOC, the NESHAP will also reduce VOC.

Combustion of fuels in combustion-based control devices and to generate electricity and steam will increase secondary emissions of carbon monoxide (CO), nitrogen oxides (NO_X), sulfur dioxide (SO_2), and PM less than 10 microns in diameter (PM_{10}) by about 870 Mg/yr (960 tpy). 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.

B. 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 cost for existing sources is estimated to be $127 million, and the total annual cost for existing sources is estimated to be $75.1 million per year.

We estimate that in the first 3 years after the effective date of 40 CFR part 63, subpart FFFF, that the annual cost burden will average $3,150/yr per respondent for recordkeeping and reporting requirements. This estimate was based on having 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 fourth 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 annual burden nationwide.

We expect that the actual compliance cost impacts of the 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 might be reduced.

C. What Are the Economic Impacts?

The economic impact analysis for 40 CFR part 63, subpart FFFF, shows that the expected price increase for affected output is 0.5 percent, and the expected change in production of affected output is a reduction of 0.3 percent. One plant closure is expected out of the 207 facilities affected by the final rule. 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, no adverse impact is expected to occur for those industries that produce miscellaneous organic chemicals affected by the NESHAP, such as soaps and cleaners, industrial organic chemicals, and agricultural chemicals.

D. What Are the Non-air 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 6.1 million gigajoules per year (5.8 trillion British thermal units per year).

IV. Summary of Responses to Major Comments

A. What Changes to Applicability Did the Commenters Suggest?

Comment: Several commenters suggested using only one industrial classification code, preferably the NAICS. The commenters also recommended increasing the specificity of the NAICS codes to six digits. As an alternative, one commenter suggested that the codes be scrapped and applicability be based simply on the manufacture of organic chemicals. Finally, the commenters requested exceptions for all codes that refer to inorganic chemical manufacturing processes.

Response: We decided to retain both the SIC and NAICS codes in the final rule. Although SIC codes are being phased out, we decided to retain them because many industries still use these codes, and they were the basis for the selecting industries that received the section 114 information request. We rejected the suggestion to use six-digit NAICS codes because the list would be unnecessarily long; listing exclusions is much shorter. For the final rule, we also decided to list only the three-digit NAICS code for the chemical manufacturing subsector (325) rather than the seven four-digit codes for industry groups within this subsector because 40 CFR part 63, subpart FFFF, applies to all of the industry groups. However, there are selected manufacturing processes within both the SIC and NAICS industry groups for which the final rule is not applicable. These processes are exempted in the final rule by listing only the applicable six-digit NAICS code. Thus, a process described by a listed six-digit NAICS code is exempt even if it falls within an otherwise applicable SIC code. The exemptions cover all but three of the processes described by NAICS codes 325131, 325181, 325188, 325314, 325991, and 325992. The three processes within these otherwise exempt categories are hydrazine, reformulating plastics resins from recycled plastics products, and photographic chemicals.

Comment: Two commenters stated that hydrazine manufacturing should not be subject to 40 CFR part 63, subpart FFFF, and the Hydrazine Manufacturing source category should be delisted because within the next few months, there will no longer be major sources within the source category; emissions from hydrazine manufacturing are too low to trigger controls; and hydrazine is an inorganic compound. If hydrazine is not removed from the miscellaneous

organic chemical manufacturing source category, one of the two commenters suggested that alternative testing methods are needed for hydrazine and that the definition of TOC should be changed to include hydrazine. The other commenter pointed out that the TRE equation is meaningless for hydrazine manufacturing plants because it requires sources to determine the hourly emission rate of organic HAP, and hydrazine and the raw materials used to produce hydrazine (*e.g.*, chlorine, caustic soda, and ammonia) are all inorganic.

Response: Subpart FFFF covers the manufacture of hydrazine because it was one of the source categories subsumed, and the standards are based on a broad variety of chemical manufacturing processes. We developed separate standards for hydrogen halide and halogen emissions that require 99 percent control when uncontrolled hydrogen halide and halogen emissions exceed 1,000 lb/yr per process. However, hydrazine itself is also a HAP. Therefore, process vents containing hydrogen halide and halogen HAP would be subject to standards for hydrogen halide and halogen emissions. Hydrazine emissions from process vents would be subject to either the continuous process vent standards or the batch process vent standards. For the purposes of calculating the TRE for continuous process vents or mass emissions for comparison with the 10,000 lb/yr applicability threshold for batch process vents, the final rule specifies that hydrazine is to be considered an organic HAP.

Comment: One commenter requested an exemption for photographic processing chemicals such as fixers, bleaches, and developers because HAP emissions from the processes are minimal, the equipment to manufacture these compounds are mixing vessels, and the processes do not appear to be included in the MACT floor. The commenter suggested that administrative burdens associated with the final rule, including calculating uncontrolled emissions, are not warranted.

Response: We have not exempted manufacturing processes for photographic processing chemicals. The manufacturing equipment and emission characteristics, such as mixing vessels and their associated emissions from vapor displacement and evaporative losses, are represented by processes contained in the database.

Comment: Many commenters supported the concept of treating process vents from the production of energetics as a separate class of emission streams subject to alternative requirements or a lesser degree of control for safety reasons. Several commenters provided specifics on the hazards posed by incineration-based controls and made recommendations that included providing definitions for energetics, waiving requirements for energetics or establishing a process where safe control technology can be identified on a case-by-case basis, and considering other control alternatives for compounds such as organic peroxides, powdered metals, metal catalysts, and highly flammable gases such as ethylene oxide and hydrogen. One of the commenters indicated that condensation and carbon adsorption are not effective on some compounds, such as nitroglycerine, which is unstable at low temperatures and cannot be safely controlled by carbon adsorption because it spontaneously combusts. The commenter supported a definition for energetics that includes ''propellants, explosives, and pyrotechnics.'' A second commenter suggested defining explosives as material included in the U.S. Department of Transportation hazardous materials tables (49 CFR 172.101) and listed as Hazard Class I hazardous material to include all Class I materials, or specifically materials in Divisions 1.1 through 1.6. The commenter indicated that using this approach, explosive manufacturers would know who they are because they are already shipping their materials as explosives; manufacturers who make materials that have some energetic properties, but are not shipped as explosives, would clearly be excluded. A third commenter requested that other compounds also be included in the subclass as explosives, particularly organic peroxides. The commenter cited EPA's rationale in providing a similar exclusion from control according to Resource Conservation and Recovery Act (RCRA), subpart CC for organic peroxide producers. A fourth commenter agreed and requested that EPA incorporate language already included at 40 CFR 264.1080(d) (duplicated at § 265.1080(d)) and 40 CFR 264.1089(i) (duplicated at § 265.1089(i)) in 40 CFR part 63, subpart FFFF. The commenter also suggested that other streams exist in the industry that may also meet this definition. For instance, reactive radioactive mixed waste wastewaters generated under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act are exempted from closed conveyance requirements per 40 CFR 264.1080(b)(6). The U.S. Department of Energy requested this exemption because the radioactive mixed waste (RMW) containers ''cannot be tightly sealed due to unacceptable pressure buildup of hydrogen gas to levels which can . . . create a potentially serious explosion hazard.'' The commenters requested that EPA include language that allows facilities to document the hazardous nature of their wastewater streams and petition for exemption from the wastewater standards.

Response: In the proposal, we recognized that the 98 percent control requirement for all process vents within affected processes would force incineration technology, and that this technology might not be appropriate for all process vent streams. Therefore, we also allowed 95 percent reduction of process vents if ''recovery'' control technology was employed to achieve required reductions. We envisioned at the time that the majority of this technology would be condensation. We solicited comments in the proposal on what commenters would consider achievable reductions from appropriate control technologies and how to define energetics. With the exception of the nitroglycerin example, we did not receive many comments that indicated that 95 percent control could not be achieved in most cases. Regarding organic peroxides, the add-on control requirement of RCRA, subpart CC, is 95 percent; therefore, EPA's earlier decision that indefinitely stayed requirements for producers of organic peroxides is consistent with the assumption that even 95 percent control cannot be achieved in these cases. Similarly, just as some reactive radioactive mixed wastewaters cannot be safely managed in closed systems, as one commenter suggested, there may be other situations that exist where sources may not be able to achieve the control efficiencies required by the final standards because of safety concerns. Based on the specific comments we received, we have concluded that it is appropriate to narrowly define a class of energetics and organic peroxides producers and allow, on a case-specific basis, a procedure to request an alternative compliance option. For these materials, the owner or operator must prepare and submit documentation in the precompliance report similar to the requirements in 40 CFR 264.1089(i) and 265.1089(i), explaining why an undue safety hazard would be created if the air emission controls specified in 40 CFR part 63, subpart FFFF, were installed on process vents, wastewater, and storage tanks containing energetics and organic peroxides, and describing what practices would be implemented to

minimize HAP emissions from energetics and organic peroxides manufacturing.

We did not broadly define energetics to encompass reactive or explosive conditions and the presence of highly flammable gases such as ethylene oxide and hydrogen. Based on past rules, we realize that combustion technology may not be appropriate in these cases, but other control technologies achieving relatively high control efficiencies are available and technically feasible.

Finally, the final rule includes a definition of ''energetics'' that is based on the definitions suggested by the commenters, and a definition of ''organic peroxides'' that is taken from 40 CFR 264.1080(d):

Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.

Organic peroxides means organic compounds containing the bivalent -o-o- structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Borrowing from language contained in 40 CFR 264.1080(d), only processes producing ''organic peroxides as the predominant products manufactured by the process'' and manufacturing ''more than one functional family of organic peroxides or multiple organic peroxides within one functional family,'' with one or more of these organic peroxides that ''could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures'' would be eligible for identical treatment as energetics.

Comment: One commenter asked for clarification that only solvent recovery operations operating at chemical manufacturing facilities are covered under 40 CFR part 63, subpart FFFF. The commenter also suggested adding a paragraph to the final rule to alert wastewater treatment operators that the final rule might apply to them.

Response: We have not included the suggested language because solvent recovery operations are in fact covered by 40 CFR part 63, subpart FFFF, even if they are not located at a chemical manufacturing facility. However, offsite operations that are part of an affected source under another subpart of 40 CFR part 63, such as the Offsite Waste and Recovery Operations NESHAP (subpart DD), are not subject to subpart FFFF, as specified in § 63.2435(b)(3) of the final rule. Secondly, offsite treatment facilities are not affected sources but they may be required to treat wastewaters according to the provisions in subpart FFFF. Operators will be notified by respective dischargers of their obligation to treat in accordance with § 63.132(g)(1), as referenced in Table 7 to subpart FFFF of part 63.

Comment: A number of commenters identified concerns with the ''family of materials'' concept and requested that EPA either eliminate it or make several changes. Several commenters suggested that the term is inconsistent with the floor determination and the information collection request (ICR), which allowed respondents to group materials but did not require it. One commenter suggested that the family of materials concept would discourage innovative or new and changed products due to constantly changing calculations and control requirements and increased administrative burden associated with tracking families. The commenter also stated that the concept is incompatible with flexible batch processes and could lead to division of products and equipment that are emitting to the same vent or groupings of products located in different buildings. The commenter suggested that grouping be conducted on shared process vents rather than families.

Four of the commenters suggested two key concepts to incorporate into the definition: the need to be able to group together processes with essentially identical emission sources and/or stream characteristics; and the recognition that, under some circumstances, functionality (*e.g.*, end use or product characteristics) may be an appropriate option in lieu of chemical composition. One of the commenters also suggested that we revise the list of examples because the proposed examples appear to be much broader categories of products than what other parts of the definition seem to allow and apply the concept only to batch process units in the same operational area.

One commenter stated that if EPA insisted on regulating equipment based on a ''family of materials'' concept, it should be limited to batch processes, and the emission threshold from the batch database should be recalculated. Finally, one of the commenters suggested that if EPA does not remove the family of materials concept, EPA must allow facilities to exclude from a family of materials grouping all individual products when the manufacture results in uncontrolled HAP emissions of less than 500 lb/yr for nondedicated batch operations or 100 lb/yr for dedicated batch operations.

Response: The concept of ''family of materials'' is merely a logical grouping to describe materials that have very similar production and emission stream characteristics such that they can be considered as a single process. The final rule bases its control requirement on the sum of uncontrolled emissions within a process grouping. Only processes with uncontrolled organic HAP emissions of greater than 5 tpy are required to be controlled by 98 percent. Therefore, the definition of process determines what sources are included within a process grouping, which in turn affects applicable requirements and must be clearly specified in the final rule. In the proposed rule, we introduced the term family of materials to describe materials that vary only slightly in molecular structure, functional groups or other characteristics and are produced using procedures that result in essentially identical HAP emission streams from essentially identical emission sources. Our intent in requiring the grouping of these materials is to keep operators from artificially breaking them up into separate ''processes'' to avoid control requirements. We consider this concept to be important and have retained it in the final rule, with some modifications. Further, from our concept of ''standard batch,'' we would say that each family of materials has the same ''standard batch.''

The standard batch concept was developed to allow owners and operators to identify and characterize emission events associated with a process. Once the emissions from each process are characterized, the owner or operator can merely count the number of batches conducted per year for each process to determine uncontrolled and controlled HAP emissions and compliance requirements. The standard batch concept provides a manageable way to document emissions; processes with the same identical standard batch should be considered the same process.

We agree with the commenters that our proposed definition did not adequately convey the concept of identical emission streams characteristics. We note that as long as groupings are also based on identical HAP emission characteristics, a grouping based on functionality is still compatible with the concept of having only one standard batch per process, which is a cornerstone of our compliance implementation strategy. Therefore, we have incorporated the suggested option so that the final definition requires identical emissions and either similar composition or functionality.

We reject the argument that the database is flawed because we did not require groupings when we surveyed

the industry. Although we did not require groupings, we encouraged respondents to group materials and provided guidance ''that products that involve different HAP or different process equipment in case of dedicated processes should not be grouped together.'' This language is basically consistent with the family of materials concept, and we note that many processes in our database appear to be material groupings. Therefore, we did not revise the MACT floor or proposed standards for batch vents. We also have not incorporated the suggestion to exempt ''individual products for which the manufacture results in less than 500 lb/yr uncontrolled HAP emissions for nondedicated batch operations'' because this language is unnecessary and inappropriate. Although the commenter may not have provided information on individual products with less than 500 lb/yr (*e.g.*, the commenter could have grouped families and emissions would be over 500 lb/yr and required to be reported), we expect that some respondents applied the 500 lb/yr reporting test on families of materials, based on the substantive number of groupings reported. Thus, there is no basis for exempting individual products for which the manufacture results in HAP emissions below the suggested 500 lb/yr threshold. Finally, because the final rule makes no distinction between ''batch'' and ''continuous'' processes, but rather on batch and continuous emissions, we do not restrict the concept to batch ''processes.''

One commenter objected to the grouping of processes that are conducted in separate buildings and areas. Our proposed and final definition of process is not equipment specific. If the same product is manufactured in more than one set of equipment, emissions from all equipment must be considered when comparing to the 5 tpy mass applicability limit. The final rule is written this way because many manufacturers use nondedicated equipment to conduct their processes, and there is the potential that processing can be moved from one area to another easily to avoid regulation. Therefore, we do not restrict the family of materials grouping according to location.

Comment: Many comments addressed various concepts in the definition of miscellaneous organic chemical manufacturing process. Several commenters considered the definition to be too lengthy and confusing. Some suggested removing statements that do not define the process. Others asked for clarification of various terms used within the definition such as ''nondedicated,'' ''nondedicated solvent recovery,'' ''equipment,'' and ''product.'' Two commenters stated that ''product or isolated intermediate'' should be changed to ''miscellaneous organic chemical product.''

Several commenters objected to various requirements for nondedicated formulation operations. For example, some commenters opposed the requirement that all nondedicated formulation operations be considered a single process. They noted that the ICR did not request data for aggregated formulation operations and, thus, the MACT floor was based on separate formulation processes. Other commenters requested clarification of the term ''contiguous area'' as it relates to formulation operations. Several commenters found the exclusion for formulation operations that involve ''mixing'' to be confusing. They also requested that all formulation operations be exempt, not just those that are nondedicated and involve mixing, because none of these operations result in many emissions. One commenter expressed concern that estimating emissions for ''hundreds'' of small vents with minimal emissions for all the various formulated products would be burdensome, and control would be very costly. One commenter asked for an explanation of why nondedicated formulation operations (and nondedicated solvent recovery operations) are treated differently than other nondedicated operations.

Several commenters stated that cleaning operations should be part of the process only if they are routine and predictable because these are the only cleaning operations for which emissions can be estimated and included in a standard batch. Other commenters added that cleaning should not be part of the process if it involves opening of process vessels because there are no practical control methods for such events.

Response: Except for nondedicated solvent recovery and formulation operations, miscellaneous organic chemical manufacturing processes are product based, meaning that all equipment used to manufacture a product is to be included in determining process vent control. We think this product-based approach is necessary because owners and operators may have the flexibility to manufacture the same product in more than one distinct area in a way that would avoid control under an equipment-based standard. However, in the case of solvent recovery operations such as distillation operations, defining a process by product would mean that each separately recovered product would be a separate process, which would result in fewer ''processes'' triggering the control requirement for the same equipment. The same is true for nondedicated formulation operations, where various finished materials could be formulated for shipment or as final product. Considering these two types of nondedicated operations as single processes also likely reflects the way in which these operations are managed and permitted. Further, we think respondents reported their data following this convention. Often, these operations will vary only in the type of HAP used. If the same HAP solvent is used for a variety of products, the emission stream characteristics per batch will essentially be the same. Therefore, considering a number of these operations as a single process actually simplifies recordkeeping. Note, however, that the final rule contains two key exemptions for batch process vents that may exempt many of the emission sources contributing to ''minimal'' emissions that the commenter is describing (*i.e.*, 50 ppmv or 200 lb/yr).

Although our proposed definition excluded ''mixing,'' we meant to exclude ''mixing of coatings,'' since this operation is to be covered by 40 CFR part 63, subpart HHHHH. When a product is blended or mixed with other materials in equipment that is dedicated to the manufacture of a single product, the mixing is included as part of the miscellaneous organic chemical manufacturing process.

We wanted to limit nondedicated solvent and formulation processes to related operations within the same area, which is the reason for the language regarding ''contiguous operations.'' However, we agree with one of the commenters that the term contiguous also conveys other meanings and, therefore, have revised the definition to refer to ''each nondedicated solvent recovery (or formulation) operation.'' The intent is to limit the process to operations located within a distinct operating area.

We agree that nonroutine cleaning operations involving vessel openings should not be considered as part of a process because they are difficult to characterize within a standard batch. These emissions would be attributed to startup and shutdown events, which are addressed separately in the final rule. In some instances, however, cleaning that is conducted within enclosed equipment between batches or between campaigns should be considered part of a process; these operations often consist of conducting solvent rinses through the equipment. Emissions from these

operations are similar to emissions during processing and the final rule's emission estimation procedures are suitable for these events. Therefore, they can be included in a standard batch for a given product and can be practically implemented.

Comment: Some commenters are confused about how a process ends with the production of an ''isolated intermediate'' or product. One commenter stated that a process should end with the production of an isolated intermediate. Subsequent manufacturing operations using the intermediate should be considered part of a different process, and emissions from the operation should be managed separately from the emissions for the isolated intermediate process. A second commenter objected to the language in the proposal preamble that qualified the meaning of ''stored'' to be long-term storage, or that the material must be shipped offsite. The commenters stated that the term ''storage'' without qualification as to the length of storage or the purpose of storage is sufficient. A third commenter was concerned that the first sentence stated that an isolated intermediate is a ''product,'' but the second sentence stated that many ''isolated intermediates'' many be produced in the manufacture of a product; and that to be an isolated intermediate, a material must be stored, but the definition of storage tanks specifically excludes tanks storing isolated intermediates. The commenter stated that the definition needs to define the end of an MCPU where that MCPU produces a material that is not itself a commercial product. Two commenters wanted clarification that the term isolated intermediate refers to an organic material and suggested changing the term to ''isolated organic intermediate'; and four commenters suggested that the term be limited to batch processes.

Response: The concept of isolated intermediate is to identify a repeatable sequence of processing events that yield a material that is stable and subsequently stored before it undergoes further processing. The concept was introduced because many chemical processors have the capability to conduct intermediate processing steps in non-sequential order or even to conduct some processing steps offsite. Requiring an operator to consider all processing steps or campaigns that result in a final product may not yield a repeatable standard batch because of the possibility that not all steps would be conducted every time, or that some processing would depend on the availability of equipment and not be sequential; therefore, we limit the definition of process to the manufacture of an isolated intermediate. The concept that an isolated intermediate must be stored is important in that, if there is no ''break'' in the processing operations, there is no end of a process. We have, in the final rule, revised the definition of storage tank and process tank. Storage effectively occurs when material is stored and not processed over the course of a batch process. Therefore, we have eliminated the inconsistency regarding storage so that a storage tank can mark the end of a process if it is truly a storage tank and not a process tank, surge control vessel, or bottoms receiver. To limit confusion between listing the various vessel types that could be construed as process tanks, we eliminated the descriptive terms drums, totes, day tanks, and storage tanks.

We have not revised the definition to include the term ''organic.'' Our proposed and final definition clearly indicates that the material must be described by 40 CFR 63.2435(b). We have not limited the term to batch processes because the revised definitions of storage tank, surge control vessel, and bottoms receiver, make this distinction unnecessary. Additionally, we avoided basing any requirements on the differences between batch and continuous ''processes'' because processes can often contain both batch and continuous operations. Finally, we agree that the term isolated intermediate also is necessary to clarify that a material that is not itself a commercial product can be considered a product of a process.

B. How Did We Change the Compliance Dates?

Comment: Several commenters stated that area sources that become major sources should have 3 years to comply. The commenters indicated that the proposed requirement to comply within 1 year deviates from 40 CFR 63.6(c)(5) of the General Provisions and requirements in other rules, and the proposal preamble provides no justification for the shorter time period. One commenter also noted that there is no difference in the level of effort needed to comply relative to that for a major source.

Response: We agree to reference the General Provisions directly for compliance requirements for an area source that becomes a major source. We consider the 3-year period that the General Provisions allows for areas sources to come into compliance after becoming major sources to be adequate time. The proposed rule was published on April 4, 2002 and the anticipated compliance date is August 2006. Area sources becoming major sources after the effective date will have 4-plus years to become familiar with the applicability of 40 CFR part 63, subpart FFFF. An area source that becomes a major source between the effective date and the compliance date also has 3 years to come into compliance, except if it adds a new affected source (*e.g.*, a dedicated MCPU with the potential to emit 10 tpy of any one HAP or 25 tpy of combined HAP).

Comment: One commenter operates an offsite treatment facility that could receive wastewater from affected sources under 40 CFR part 63, subpart FFFF. This commenter expressed concern with the requirement that existing sources be in compliance 3 years after the effective date of the final rule because they might not even receive affected wastewater until sometime after the compliance date. Therefore, the commenter suggested adding a new § 63.2445(f) to read as follows: ''If you have an offsite treatment operation that receives affected wastewater or residue prior to the effective date of this subpart, then you must comply with the requirements for offsite treatment operations in this subpart no later than the date 3 years after the effective date of the subpart. If you have an offsite treatment operation that receives affected wastewater or residue after the effective date of this subpart, then you must comply with the requirements for offsite treatment operations in this subpart prior to receipt of an affected wastewater or residue.''

Response: The proposed rule specified that affected wastewater (*i.e.*, ''Group 1'' wastewater in the final rule) that is sent offsite for treatment would be subject to § 63.132(g) of the HON. Those provisions require the offsite facility to comply with §§ 63.133 through 63.147 for any Group 1 wastewater that they receive. The commenter was concerned that an offsite treatment facility would be considered to be an existing source and might be unable to demonstrate initial compliance (*i.e.*, implement the design and operational requirements for waste management units and determine the performance of control devices and treatment processes) by the compliance date if the facility is not now receiving Group 1 wastewater and the operators are unaware whether the facility may receive such wastewater at some point in the future.

We did not add the suggested language because the proposed language is clear and already satisfies the commenter's concerns. Although an

offsite treatment facility will be required to meet the wastewater standards and associated compliance provisions if it accepts wastewater from an affected source, the offsite treatment facility is not an affected source. Therefore, the compliance date specified in § 63.2445 does not apply to an offsite treatment facility. The burden is also on the affected source operators to inform the offsite treatment facility of their intent, determine if the offsite facility is willing to handle the wastewater, and allow the offsite treatment facility time to achieve initial compliance before the first shipment.

C. How Did We Develop the Standards?

Comment: One commenter stated that EPA unlawfully failed to set standards for all HAP emitted by the source category. According to the commenter, examples of HAP for which standards were not set include inorganic HAP such as HCl, HF, Cl_2, potassium compounds; and organic HAP such as maleic and phthalic anhydrides. As support, the commenter referenced *National Lime Association* v. *EPA*, 233 F.3d 625 (D.C. Cir. 2000). Conversely, other commenters noted that the rule as proposed regulates both inorganic and organic HAP, but they suggested it should regulate inorganic HAP only when generated by the combustion of halogenated organic HAP. Some of these commenters stated that focusing on just organic HAP would be consistent with EPA's CAA section 114 data collection, the corresponding MACT floor analysis, and the approach used in other MACT standards. Two commenters noted that EPA recognized the inherent differences in the physical/chemical nature of inorganic HAP and the different technologies required for their control and specifically excluded inorganic HAP from the MACT floor analysis. The two commenters also stated that other standards, such as the HCl Production MACT, already adequately address inorganic HAP reduction requirements. Should EPA decide to regulate inorganic HAP, two commenters indicated that we should conduct additional MACT floor analyses and then propose separate standards for organic and inorganic HAP.

Response: At proposal, our intent was that all types of gaseous HAP would be subject to the batch and continuous process vent standards. Similarly, the proposed storage tank standards would apply to all gaseous HAP, provided the maximum true vapor pressure for the total HAP in the storage tank exceeded the specified threshold. However, standards for the remaining emission source types are based on the compounds regulated by the HON, which covered organic HAP only. Standards for transfer operations and equipment leaks would also apply to any individual organic HAP or combination of organic HAP that meet a partial pressure threshold. Wastewater standards would apply only to those organic HAP that have the potential to volatilize from water based on modeling analyses conducted during development of the HON.

In response to the comments, we decided to develop a MACT floor and standards for hydrogen halide and halogen HAP (*i.e.,* HCl, HF, and Cl_2) emissions from process vents that are separate from the analysis for organic HAP emissions. Based on data obtained in responses to the original ICR, this MACT floor was determined to be 99 percent control of hydrogen halide and halogen HAP from the sum of all vents in processes with uncontrolled hydrogen halide and halogen emissions equal to or greater than 1,000 lb/yr. We did not receive any information regarding source reduction techniques for hydrogen halide and halogen HAP. Generally, we would expect that these compounds are emitted as products of reaction, and there may be less opportunity for source reduction from these types of process vent emissions when compared to organic HAP. However, we structured the MACT floor to consider measures of reducing HAP emissions other than add-on control by basing the MACT floor on a percent reduction above some uncontrolled emission value. By default, implementing source reduction measures reduces ''uncontrolled emissions.'' The performance level of 99 percent is the highest control level achievable across the source category and is achieved by about 50 percent of the processes. The primary control devices used in the industry are packed-bed scrubbers. Control efficiencies for hydrogen halides (acid gases) and halogens depend on the solubility of the HAP in the scrubbing liquid, which in turn will vary with the processes that emit them. Control device vendors estimate that removal efficiencies for inorganic gases range from 95 to 99 percent (EPA–CICA Fact Sheet: Packed-Bed/Packed-Tower Scrubber). Therefore, although the reported control efficiencies for some processes were in excess of 99 percent, levels greater than 99 percent may not be uniformly achievable under all operating conditions. The best performing of these sources are those with the lowest uncontrolled emissions from the sum of all vents within the process. Therefore, we ranked all processes controlling hydrogen halide and halogen emissions to at least 99 percent by their uncontrolled emissions, from lowest to highest. For the best-performing 12 percent of processes, the median uncontrolled emissions rate is 1,000 lb/yr.

In setting the MACT floor for existing sources, we considered whether sources may be using emission reduction techniques other than technological controls for hydrogen halide and halogen HAP to determine whether such techniques might provide the basis for a floor. However, we did not receive any information regarding emission reduction techniques for these HAP in response to our ICR request that sources provide such information. Accordingly, we do not have information indicating that a sufficient percentage of sources are using emission reduction techniques for hydrogen halide and halogen HAP to enable us to set a MACT floor based on such techniques. Generally, we expect that because these HAP are emitted as products of reaction, there may be fewer opportunities to reduce process vent emissions of these HAP than there are opportunities to reduce emissions of organic HAP. (Organic HAP are frequently present in solvents, and solvent use can often be reduced; by contrast, reducing emissions of reaction products is more difficult because fundamental process changes are typically necessary.) Again, however, we do not have any information about the use of emission reduction techniques with which to support a floor determination.

Nevertheless, sources may use the pollution prevention option set out in 40 CFR part 63, subpart FFFF, to meet the 1,000 lb/yr cutoff for process vent emissions of hydrogen halide and halogen HAP and thereby comply with the relevant standards.

For new sources, the MACT floor is the same as for existing sources because reported control efficiencies in excess of 99 percent are not reliable. The final standards for hydrogen halide and halogen HAP emissions from process vents are also based on the MACT floor because the total impacts of a regulatory alternative were determined to be unreasonable.

Based on comments received, we decided to review our available data and develop a MACT floor for HAP metals in the form of PM, which acts as a surrogate for them. Our database shows six facilities emit PM HAP (specifically various metal compounds). One of the six facilities is controlling emissions from three processes with three different control devices, and the lowest control

efficiency is 97 percent. Since there are only six sources, the MACT floor for existing sources is based on the average performance of the top five sources. Since only one of the top five sources is implementing control, we determined the MACT floor is no emissions reduction. The final standard is based on the MACT floor because the total impacts of a regulatory alternative were determined to be unreasonable.

In setting the MACT floor, we considered whether some facilities may implement emission reduction measures to reduce PM HAP emissions, instead of using control technologies. We requested information on emission reduction measures in our section 114 information request. Of the approximately 40 different process changes reported, however, only one facility reported a process change that could be directly associated with PM emissions, which was described as ''removing a hopper and vent.'' Further, we do not know whether this emission reduction measure was effective in reducing PM HAP emissions. Therefore, because we lack information indicating that a sufficient number of process vents employ such measures to reduce emissions of PM HAP to set a floor, we were unable to set a MACT floor based on emission reduction measures.

The new source MACT floor for PM HAP emissions is based on the control achieved by the best-performing source. As noted above, the best-performing source is routing emission streams from three processes to three different control devices: a baghouse (fabric filter), a spray chamber and a rotoclone. The baghouse (fabric filter) achieves 97 percent control and this level is considered the emission control level that is achieved in practice by the best-controlled similar source, even though the other control devices report higher control efficiencies. Particulate control efficiencies are influenced by factors such as filtration velocity, particle loading, and particle characteristics, which in turn vary depending on the processes that emit them. Variations in stream characteristics make it difficult to conclude that the higher reported control efficiencies for the other control devices could be achieved in practice by all process vents that emit PM HAP. Based on ranking of the sources achieving 97 percent according to each source's lowest uncontrolled PM HAP emission level, the best-performing source is the lowest uncontrolled PM HAP emission level for any of the controlled processes (i.e., 400 lb/yr). Thus, the new source MACT floor for PM HAP emissions from process vents is 97 percent control for each process with uncontrolled PM HAP emissions greater than or equal to 400 lb/yr.

Comment: One commenter stated that we unlawfully exempted emission points from regulation by establishing applicability cutoffs for both new and existing sources. The commenter stated that the rule must apply to all sources as required under the CAA, and, thus, cutoffs are illegal; and for wastewater, transfer operations, and equipment leaks, EPA illegally borrowed cutoffs and MACT floors from other standards. The commenter stated that standards must reflect the actual performance of the best-performing sources in the miscellaneous organic chemical manufacturing category. The commenter objected to 98 percent control levels for the process vent floors because reported control efficiencies for many process vents exceeded 98 percent. Finally, the commenter objected to the use of a work practice standard for equipment leak controls. Conversely, several other commenters suggested that the rule should specify additional thresholds below which a source would be considered to have ''insignificant HAP emissions'' and be exempt from control.

Response: We disagree that every emission point at a major source must be required to reduce emissions. First, section 112(a) of the CAA defines ''stationary source'' (through reference to section 111(a)) as: ''* * * any building, structure, facility, or installation which emits or may emit any air pollutant * * *.'' (42 U.S.C. §§ 7412(a)(3) and 7411(a)(3)). The General Provisions for the MACT program define the term ''affected source'' as ''the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112.'' (40 CFR 63.2). Nothing in the definition of ''stationary source'' or in the regulatory definition of ''affected source'' states or implies that each emission point or volume of emissions must be subjected to control requirements in standards promulgated under section 112.

Further, even under the commenter's interpretation of ''stationary source,'' the Agency would still have discretion in regulating individual emission sources. Section 112(d)(1) allows the Administrator to ''distinguish among classes, types, and sizes of sources within a category or subcategory in establishing such standards * * *.'' We interpret this provision for the miscellaneous organic chemical manufacturing NESHAP, as we have for previous rules, as allowing emission limitations to be established for subcategories of sources based on size or volume of materials processed at the affected source. Under the discretion allowed by the CAA for the Agency to consider ''sizes'' of sources, we made the determination that certain small-capacity and low-use operations (e.g., ''smaller'' storage tanks) can be analyzed separately for purposes of identifying the MACT floor and determining whether beyond-the-floor requirements are reasonable. In addition, our MACT floor determinations for certain categories (e.g., process vents), which are set according to section 112(d)(3) of the CAA, reflect the performance levels and ''cutoffs'' of the best-performing sources for which we had information.

In general, our MACT floor determinations have focused on the best-performing sources in each source category, and they consider add-on control technologies as well as other practices that reduce emissions. As part of our information collection effort, we requested information on emission source reduction measures. We generally did not receive information indicating that, for the emission points covered by 40 CFR part 63, subpart FFFF, sources are currently reducing emissions by means other than control technologies in sufficient numbers to support a MACT floor based on source reduction measures. Accordingly, our standards include a performance level that represents the level achieved by the best control technology, and a cutoff that represents the lowest emission potential that is controlled by the best 12 percent of sources. Because the miscellaneous organic chemical manufacturing source category is broad in terms of the numbers and types of processing operations that are covered, one challenge was to develop a format by which all sources could be compared to each other to establish the best-performing sources. The performance level generally is of the format that can be applied to different types of control technology and processes and is generally consistent with existing rules. Thus, different types of control technology and emission levels resulting from existing rules are captured in our MACT floor analysis. The cutoff allows owners and operators that have reduced their emissions below a certain level using one or more methods, including process changes to reduce or eliminate pollution at the source, to comply without additional control. Both performance levels and cutoffs have been set to account for variations in emission stream

characteristics so that the standards can be applied consistently across the source category. We believe that this approach is consistent with the language of section 112(d)(3) that requires us to set the MACT floor based on the best-performing 12 percent of existing sources.

Aside from the MACT floor determinations, we also provided a pollution prevention compliance alternative to allow compliance with the standards by demonstrating a reduction in HAP usage per unit of product. This alternative enables owners and operators to comply using emission source reduction measures.

The above discussion notwithstanding, we decided to conduct a MACT floor analysis for storage tanks with capacities less than 10,000 gal. We concluded that the MACT floor for small tanks at existing sources is no emissions reduction because we have information from only eight sources that is not sufficient for setting a floor, and only one of the best-performing five sources is implementing controls. We did not specifically request information for tanks with capacities of less than 10,000 gal. Based on earlier EPA studies on the organic compound manufacturing industry (EPA–450/3–90–025), we estimate the actual number of storage tanks with capacities of less than 10,000 gal in our source category to be 30 percent of the total number of tanks, or approximately 500 tanks. The eight facilities reported information on 19 tanks, which is not enough information to set the floor. We also based the standard for existing storage tanks with capacities less than 10,000 gal on the MACT floor, because a regulatory alternative was determined to be unreasonable.

As for the new source MACT floor for storage tanks with capacities less than 10,000 gal, the best-performing source is controlling emissions from two small tanks by 98 percent with thermal incineration. One tank has a capacity of 9,800 gal and is storing material with a HAP partial pressure of 0.373 psia. The other tank has a capacity of 8,000 gal and is storing material with a HAP partial pressure of 0.574 psia. We consider the first tank to be more stringently controlled because partial pressure is the best indicator of emission potential and controlling a lower partial pressure is an indication of greater stringency. We compared this tank's characteristics to the new source MACT floor for larger tanks, which was set at 95 percent control for tanks with capacities of greater than 10,000 gal and storing materials with HAP partial pressures of 0.1 psia or higher. From an analysis of the tanks in our database, we concluded that the new source MACT floor for larger tanks is more stringent than a floor based on 98 percent reduction for tanks storing material with a HAP partial pressure greater than or equal to 0.4 psia. Therefore, we concluded the new source MACT floor as proposed to be appropriate for all tanks.

Finally, we do not have any information indicating that storage tanks with capacities less than 10,000 gal are reducing emissions through measures other than control technologies. Accordingly, we lacked sufficient information to set a floor based on such measures.

The MACT floors for organic HAP emissions from batch and continuous process vents are 98 percent control because this level has been shown to be uniformly achievable by well-designed and operated combustion devices. During development of the HON, the EPA recognized that thermal incineration may achieve greater than 98 percent reduction in some cases, but test data show that levels greater than 98 percent may not be uniformly achievable under all operating conditions (59 FR 19420, April 22, 1994). Similarities in processes and resulting emission streams in this industry with that of the HON source category processes allow us to draw the same conclusions with regard to achievable combustion control efficiencies. A review of the batch process vent database indicates that most processes with overall control of 98 percent or greater are controlled using thermal incinerators and flares (110 of 132 processes). We found the performance level for the MACT floor to be 98 percent because as much as 15 percent of the 731 processes in the database were controlled by thermal incineration. Similarly, a review of the continuous process vent database indicates that most processes with overall control of 98 percent or greater are controlled using thermal incinerators and flares (31 of 37 processes). We found the performance level for the MACT floor to be 98 percent because as much as 15 percent of the 202 processes in the database were controlled by thermal incineration. We did not use reported control efficiencies for scrubbers used to control organic HAP because we do not know the fate of pollutants captured in the scrubber effluent. If some of these pollutants are re-released to the air, then the reported control efficiencies are not valid.

For equipment leaks, we considered various formats for the standard and determined that a work practice standard based on an LDAR program is the most feasible. Unlike other emission sources, leaking components are not deliberate emission sources but rather result from mechanical limitations associated with process piping and machinery. A well-managed facility follows a preventive maintenance program to minimize leaks, but in all practicality cannot guarantee that no leaks will occur. Therefore, an emission standard for equipment leaks would not be feasible to enforce or prescribe. At the same time, our data indicate that the MACT floor for equipment leaks is an LDAR program. We also developed regulatory alternatives on the use of more effective LDAR programs. Finally, we note that enclosing components and venting to control is allowed, but except in limited cases, we expect the cost to be prohibitive.

Regarding the other commenters' suggestions, we note that the standards for all types of emission points contain cutoff values, consistent with our MACT floors, below which sources are exempt from control. We also concluded that our information did not allow us to develop a relationship between the various emission source types such that we could identify ''insignificant'' sources merely by the sum of actual emissions from process vents.

Comment: One commenter stated that we failed to properly evaluate beyond-the-floor options. According to the commenter, in some cases, we stated that the MACT floor option was the most stringent option without identifying or evaluating other options (*e.g.,* LDAR for equipment leaks was assumed to be the most stringent option). In other cases, the commenter noted that the beyond-the-floor option is simply a lowering of the cutoff, and as discussed above for the MACT floor, the commenter stated that cutoffs should not be allowed. Also, where 98 percent control is the MACT floor, the proposed rule did not address why a beyond-the-floor option was not selected where data showed higher reductions are being achieved.

Response: Our beyond-the-floor options reflect the most stringent performance levels that have been proven and can be applied consistently across our source category. It is true that in many cases, the beyond-the-floor option was based on simply lowering a cutoff, similar to the discussion above for new sources. This is consistent with the intent of section 112(d)(3) because better-performing sources have lower cutoffs.

For example, for batch process vents at existing sources, we evaluated the

feasibility of a regulatory alternative that would require 98 percent control of batch process vents in processes with uncontrolled organic HAP emissions between 5,000 and 10,000 lb/yr. We concluded that the total impacts of this alternative are unreasonable in light of the HAP emission reductions achieved. The incremental HAP reduction achieved by this above-the-floor alternative is 145 Mg/yr, and the incremental cost is about $15,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is 5.1 million kilowatt hours per year (kwh/yr). The incremental steam consumption for steam-assist flares is 6 million lb/yr. The incremental fuel energy consumption to operate incinerators and flares and to generate electricity is 340 billion British thermal units (Btu) per year. Total CO, NO_X and SO_2 emissions from combustion of the additional fuel is about 66 Mg/yr. There would be no wastewater or solid waste impacts.

We evaluated the feasibility of a regulatory alternative that would require 98 percent control of organic HAP emissions from continuous process vents that have a TRE index value between 1.9 and 5.0 at existing sources. We concluded that the total impacts of this alternative are unreasonable in light of the HAP emission reductions achieved. The incremental HAP reduction achieved by this above-the-floor alternative is about 400 Mg/yr, and the incremental cost is about $29,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is 28 million kwh/yr. The incremental steam consumption for steam-assist flares is 83 million lb/yr. The incremental fuel energy consumption to operate incinerators and flares, generate steam, and generate electricity is 2.4 trillion Btu per year. Total CO, NO_X, and SO_2 emissions from combustion of the additional fuel is 400 Mg/yr. There would be no wastewater or solid waste impacts.

We evaluated the feasibility of a regulatory alternative that would require 99 percent control of hydrogen halide and halogen emissions from processes with uncontrolled hydrogen halide and halogen emissions between 500 and 1,000 lb/yr at existing sources. We concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved. The incremental HAP reduction achieved by this beyond-the-floor alternative is 1.0 Mg/yr, and the incremental cost is about $90,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is 31,000 kwh/yr, and the incremental fuel energy consumption to generate the electricity is 300 million Btu per year. Total CO, NO_X, and SO_2 emissions from the combustion of the additional fuel is 0.27 Mg/yr. The incremental wastewater generated from scrubber controls is 400,000 gal/yr.

We evaluated the feasibility of a regulatory alternative that would require 97 percent control of PM HAP emissions from process vents at existing sources if the uncontrolled PM HAP emissions exceeded 400 lb/yr. The only facility that meets the threshold for control is already controlled. Thus, we concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved for a model facility that was based on the characteristics of the controlled facility. The incremental HAP reduction achieved by the above-the-floor alternative for the model facility is 4.3 Mg/yr, and the incremental cost is $68,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is about 24,000 kwh/yr, and the incremental fuel energy consumption to generate the electricity is 230 million Btu per year. Total CO, NO_X, and SO_2 emissions from combustion of the additional fuel is 0.2 Mg/yr. The quantity of solid waste generated could be greater if the owner or operator elects to use a dust collector that includes water sprays and discharges the collected dust in a slurry form.

For wastewater, we considered a regulatory alternative that would require HON-equivalent control of wastewater streams at existing sources that contain soluble HAP at concentrations between 15,000 ppmw and 30,000 ppmw or that contain partially soluble or mixed HAP at flowrates between 0.5 and 1.0 lpm. We concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved. The incremental HAP reduction achieved by this above-the-floor alternative is 160 Mg/yr, and the incremental cost is about $8,500/Mg of HAP controlled. The incremental electricity consumption to operate pumps is 45,000 kwh/yr. The incremental steam consumption for steam strippers is 8.0 million lb/yr. The incremental fuel energy consumption to generate electricity and steam is 12 billion Btu per year. Total CO, NO_X, and SO_2 emissions from the combustion of additional fuel to generate the electricity and steam is 1 Mg/yr. There may also be solid waste impacts if condensed steam and pollutants from the steam stripper cannot be reused. Small amounts of wastewater in the form of blowdown from the cooling water system for the condenser may also be generated.

For storage tanks at existing sources, we examined two regulatory alternatives. First, for storage tanks with capacities of at least 10,000 gal, we considered an alternative that would require an internal floating roof, external floating roof, or at least 95 percent reduction if the partial pressure of HAP stored in the tank is between 0.5 and 1.0 psia. We concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved. The incremental HAP reduction achieved by this above-the-floor alternative 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 refrigerated condensers are 16,000 kwh/yr and 155 million Btu per year, respectively. Total CO, NO_x, and SO_2 emissions from combustion of additional fuel is 0.13 Mg/yr, and there would be no wastewater or solid waste impacts. There also would be no environmental impacts or energy impacts for other storage tanks controlled with floating roofs. The second regulatory alternative that we considered would require 95 percent control for storage tanks with capacities less than 10,000 gal. We concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved. On an average tank basis, the incremental HAP reduction achieved by this above-the-floor alternative is less than 0.5 Mg/yr, and the incremental cost would be on the order of $200,000/Mg of HAP controlled. The incremental electricity and fuel energy consumption rates for storage tanks controlled with refrigerated condensers are about 3,100 kwh/yr and 30.0 million Btu per year, respectively. Total CO, NO_x, and SO_2 emissions from combustion of the additional fuel are about 0.025 Mg/yr. There would be no wastewater or solid waste impacts.

Regarding the specific situation described by the commenter in which we did not propose a more stringent option than the equipment leaks LDAR program, we are not aware of any option that could be applied consistently across the source category that would be effective. For example, enclosing all components and venting to control is allowed for process piping located inside of buildings or enclosures, but except in limited cases, we would expect the costs of such an option to be prohibitive. Furthermore, we have developed a revised MACT floor that consists of an LDAR program consistent with the requirements specified in 40 CFR part 63, subpart TT. We then

evaluated a regulatory alternative based on the more comprehensive LDAR program specified in 40 CFR part 63, subpart UU. We determined that this alternative is reasonable for processes that have at least one continuous process vent, but the costs are unreasonable for other processes. Because the regulatory alternative is implementation of a more stringent LDAR program, there are essentially no energy impacts or non-air quality health and environmental impacts associated with the regulatory alternative.

Finally, we did not evaluate a regulatory alternative for transfer operations because the floor is at the most stringent known requirements.

Comment: Several commenters recommended referencing the Generic MACT at 40 CFR part 63, subparts SS, UU, and WW, in their entirety to specify all of the initial compliance, monitoring, recordkeeping, and reporting for process vents, transfer operations, storage tanks, closed-vent systems, and equipment leaks. Commenters also recommended referencing §§ 63.132 through 63.149 (and their associated recordkeeping and reporting requirements in §§ 63.151 and 63.152) of the HON for all of the requirements for process wastewater streams and liquid streams in open systems within MCPU, although one commenter recommended referencing the closed-vent system requirements in subpart SS instead of the comparable requirements in the HON. According to the commenters, the piecemeal referencing in the proposed rule was confusing and it expanded some requirements relative to the other subparts and missed some requirements in those subparts, which resulted in inconsistencies. A particular concern was that the proposed approach excluded the use of fuel gas systems and routing emission streams to a process.

Response: To simplify and streamline the final rule and minimize the compliance burden, we decided to provide more complete references to the other rules with exceptions and additions only where needed. For example, we modified the hierarchy of compliance applicability in § 63.982(f) of the final rule; we overrode some of the initial compliance procedures in 40 CFR part 63, subpart SS, with the procedures in 40 CFR part 63, subpart GGG, for control devices used to control batch process vents; we retained the vapor balancing alternative in subpart GGG for storage tanks; we have specified different thresholds for Group 1 wastewater streams; we referenced 40 CFR part 63, subpart TT, rather than 40 CFR part 63, subpart UU, for equipment leaks in processes with no continuous process vents; we have specified periodic verification procedures rather than continuous monitoring for control devices with inlet HAP load less than 1 tpy; we have allowed averaging periods of operating blocks as well as operating days for batch operations; we retained the recordkeeping concept as proposed based on operating scenarios; we retained the precompliance report; and we have specified recordkeeping and reporting requirements for ''deviations.''

Comment: Two commenters requested that sources be allowed to follow the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Consolidated Federal Air Rule (CAR) for continuous process vents, storage tanks, equipment leaks, and transfer operations so that a facility with HON and miscellaneous organic chemical manufacturing processes can comply with a consistent set of requirements. The commenters stated that the maximum use of standardized programs such as the CAR will provide the maximum flexibility to a facility nominally covered by multiple MACT rule requirements. One commenter stated that the American Chemistry Council, EPA, and many other stakeholders developed the CAR as the lowest burden, clearest, and most consistent set of requirements possible for the chemical industry using the HON model and understood that the CAR rule would be a model for future chemical industry rules.

Response: The CAR was developed to provide a consolidated set of requirements applicable to storage vessels, process vents, transfer racks, and equipment leaks within the SOCMI. The CAR eliminates the overlapping requirements of numerous new source performance standards (NSPS) and NESHAP for the SOCMI that affect the same processes and equipment. These same requirements have also been codified in the Generic MACT at 40 CFR part 63, subparts SS, UU, and WW. Therefore, a facility with both HON and miscellaneous organic chemical manufacturing processes can essentially comply with the same set of requirements (*i.e.*, the HON processes would use the CAR, and the miscellaneous organic chemical manufacturing processes would follow the Generic MACT). We think that the reference in 40 CFR part 63, subpart FFFF, to the Generic MACT standards already provides the opportunity to consolidate across a facility, and except for equipment leaks, we do not see a benefit to cross-referencing another identical set of standards. We decided to specify in the final rule that you may elect to comply with equipment leak requirements in the CAR because the CAR is equivalent to or more stringent than the requirements in subpart FFFF.

D. Standards for Process Vents

Comment: Numerous commenters suggested that we adopt the definition of ''batch process vent'' from the Polymer and Resins IV NESHAP. The commenters noted that this definition includes an applicability cutoff level of 500 lb/yr. Some of the commenters justified using this cutoff, or a similar mass-based limit, for the miscellaneous organic chemical manufacturing source category because 50 percent of batch process vents in the database emit less than 500 lb/yr and account for only 0.2 percent of total emissions, it would be more enforceable, and it would not be affected by dilution. One commenter suggested adding exemptions for vents used less than 300 hours per year (hr/yr) or emitting less than 1,000 lb/yr because batch processes often have hundreds of minor vents that are used only occasionally or have minimal emissions, and it would be prohibitively expensive to control these vents. Other commenters supported the 50 ppmv minimum control threshold but suggested that the concentration should be based on annual average vent HAP concentrations and emissions averaged over numerous emission episodes. They suggested using the existing annual average batch vent flowrate and annual average batch vent concentration equations found in § 63.1323 of subpart JJJ. Many commenters also requested exclusions for opening of process equipment for material addition, inspection, and for health and safety vents. The commenters indicated that the exclusion for opening equipment is supported by the EPA database because those facilities that reported fugitive emissions from batch operations did not control them. Furthermore, the commenters cited the precedent of the Offsite Waste and Recovery Operations MACT, which relieves operators of the requirement to vent emissions through a closed-vent system during sampling of tank contents and removal of sludges.

Response: In general, we agree with the comments relating to adding a mass cutoff comparable to the 50 ppmv concentration limit. The use of a mass cutoff may be simpler than calculating the concentration in some situations, such as where emissions are known, but not the total volume of air in the system or the duration of an emission event (*e.g.*, emissions data developed from a mass balance). Being allowed to exclude vents based on emissions in addition to concentration may simplify the applicability determination procedure

in some cases. However, we determined that a lower cutoff than the 500 lb/yr is more appropriate. Of the approximately 1,500 process vents with concentrations less than 50 ppmv, the average (mean) mass emission rate is about 235 lb/yr. To establish a mass cutoff in the final rule that corresponds to the 50 ppmv concentration, we rounded this value to 200 lb/yr. If more than one emission episode contributes to a process vent, or if process vents within a process are piped or ducted together, the cutoff applies to the combined total.

The averaging period for determining the concentration was not specified in the proposed process vent definition; however, the proposed rule essentially required emissions to be calculated for each emissions episode. This means the averaging time for a concentration determination is over a single emission episode. The equations found in § 63.1323 of subpart JJJ would divide the total mass per batch by 8,760 hr/yr, which is not our intent. Therefore, we did not revise the definition to be consistent with the definition in subpart JJJ, but we have clarified that the concentration cutoff applies to emission episodes. The mass cutoff discussed above also applies to emission episodes. Thus, if a gas stream from any one episode meets the 50 ppmv cutoff, the process vent is affected.

Streams with less than 50 ppmv were specifically exempted from the vent definition to limit the introduction of dilution gases containing little to no HAP into emission streams as a means of diluting them and exempting them from control. Allowing averaging between streams of less than 50 ppmv with other emission episodes, as the commenters suggested, would effectively allow such dilution.

Therefore, we do not allow averaging across episodes to yield an average concentration for the purposes of determining whether a stream is affected.

We have decided to exempt some emissions releases that result from safety and hygiene practices because it is unlikely that these vents would reach the 50 ppmv concentration level. The exemption also will relieve owners and operators from the burden of demonstrating that they meet the concentration level. Specifically, the definition of ''batch process vent'' excludes flexible elephant trunk systems that draw ambient air (i.e, systems that are not ducted, piped, or otherwise connected to the unit operations) away from operators that could be exposed to fumes when vessels are opened.

We also note that although equipment openings without the presence of capture hoods and vents were not addressed specifically in the proposed rule, they would be subject to the provisions for certain liquid streams in open systems inside processes. Under these provisions, if the equipment meets the specified design and operating characteristics (*e.g.*, a tank with a capacity greater than 10,000 gal), then routine opening of the equipment would not be allowed. Also, opening events that are not routine and conducted as part of maintenance activities can be addressed in the facility's SSMP. Finally, regarding the commenter's request to exempt emergency vents, the SSMP can be used to address these events as well.

Comment: One commenter stated that MACT floors must be based on an average of existing regulatory limits, not on actual emissions data. According to the commenter, using actual emissions data violates section 302(k) of the CAA.

Response: We disagree with this comment. Nothing in section 302(k) of the CAA prohibits the use of actual emission data in setting MACT floors. The MACT floor was developed using all available information. The evaluation included, but was not limited to, information about existing regulatory limits. We also collected information from sources in the industry and States during 1997 that was the source of actual emissions data. A CAA section 114 ICR was sent to 194 facilities in the spring of 1997. The facilities which received the ICR were identified from EPA's 1993 toxic release inventory 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.

Comment: One commenter stated that the methodology utilized in determining the MACT floor for batch processes fails to accurately reflect the processes of the adhesives and coatings industry because, to the best of the commenter's knowledge, none of the 11 companies that own all of the sources in the MACT floor analysis makes adhesives. Other commenters noted that air-bearing vents, which cannot safely go to a flare or incinerator, should be considered separately from non-air-bearing vents because it is much harder to obtain high control efficiencies without using a combustion device. One commenter requested that spray dryer operations and post-spray dryer solids handling systems be excluded from the MCPU because the commenter is unaware of any facilities currently controlling such emission streams, it would be very costly to control such streams, and spray dryers are not specifically discussed in the MACT floor documentation.

Response: In the development of our database, we solicited information from a number of industries thought to be representative of this source category. Processing operations such as the synthesis of resins or polymers that are used as bases for adhesives are expected to result in emission sources with characteristics similar to other specialty chemical processes in this source category. Therefore, we expect the emission stream characteristics of the adhesives industry to have similar characteristics as those of other industries covered by this source category and have, therefore, not developed a separate category for this industry.

We disagree with the suggestion to consider air-bearing vents separately from other vents in the development of the MACT floor. Roughly half of the process vents in our batch process vents database have concentrations of 50 ppmv or less. These streams, which include many air-bearing streams from dryers and other sources, were exempt from the definition of process vent in the proposed rule because we recognize that it is not technically or economically feasible to require control of these streams. For process vents containing greater than 50 ppmv HAP, the final rule also allows compliance by meeting an outlet concentration limit as an alternative to a percent reduction standard. This alternative is provided to assist owners and operators in complying with the standards for low concentration streams.

Our process vent database includes spray dryers at two facilities. It also includes over 25 records for ''dryers'' at other facilities, some of which may pertain to spray dryers. As noted above, our database also includes air-bearing vents, which have characteristics likely to resemble those of emission streams from spray dryers. Therefore, we determined that these emission sources are represented in our database, and that the MACT floor properly sets the level of control for these vent streams.

Comment: Various commenters indicated the MACT floor for continuous process vents should be recalculated because of the following perceived problems with the database and analysis: a process vent at the BP Chemicals, Wood River plant (formerly Amoco Petroleum Additives), should be

removed from the database because no such vent ever existed; the database includes errors such as emission points that are not continuous process vents; the analysis was conducted on a facility basis rather than a vent basis; flowrate assumptions are too high; the sample population is too small; and the database is skewed by a disproportionate number of sources in ozone nonattainment areas.

Response: To develop the MACT floor for continuous process vents, we relied on available information from State permitting databases. To the best of our knowledge, these data reflect the sources that will be subject to requirements for continuous process vents. Although many of these facilities are in ozone nonattainment areas, the commenters have provided no evidence that this is not representative of sources that will be subject to the final standards. We disagree with the commenter's assertion that the analysis should be conducted on a vent basis rather than a facility basis. Our analysis was designed to identify what level of emissions would not be controlled by facilities that would be considered the best-controlled sources in the industry. That level of emissions, characterized by the vent with the highest TRE index value below which all other vents were controlled, became the TRE cutoff value for the facility. We consider the analysis valid and in keeping with the statutory MACT requirements of CAA section 112(d)(3). Regarding our assumption of flowrate in cases where no flowrate data were available, we note that our assumed flowrate is the average of the available flowrates. In response to the objection that the sample population was too small, we note that it is derived from many of the major chemical producing States, and we estimate that it represents about half of the affected sources with continuous process vents. However, we agree that the vent at the BP facility should be excluded because it never existed. Without this vent, the TRE threshold for control of continuous process vents is now 1.9 rather than 2.6.

Comment: Several commenters requested that control devices installed prior to April 4, 2002, be grandfathered from the 98 percent reduction requirement if they achieve 90 or 95 percent control of organic HAP. The commenters noted that many companies may be faced with abandoning existing control devices and installing new devices to get only an incremental reduction in HAP emissions, and they noted that other MACT rules (*e.g.*, pharmaceuticals and pesticide active ingredients) allow the continued use of existing controls that have a lower efficiency than the standard. One commenter also indicated that regenerative thermal oxidizers (RTO) have difficulty in achieving 98 percent control.

Response: Since the final rule provides less stringent control requirements for control devices that can recover materials for reuse, we assume that the bulk of the concern related to control devices is for incinerators that will not meet 98 percent. Devices such as RTO are typically installed to control high air flow, low concentration streams. Therefore, while this type of device may not meet the 98 percent control requirement, the final rule also allows sources to demonstrate compliance with an outlet concentration limit, which may be achievable by an RTO when the uncontrolled HAP concentration in the vent stream is low. We note also that the batch vent requirements contain options for monitoring parameters in lieu of correcting outlet concentration for 3 percent oxygen (O_2). Finally, the final rule includes a provision that may enable some sources to group nondedicated processing equipment together and comply only with the requirements in the rule that apply to the primary product made in the equipment.

E. Storage Tank Standards

Comment: Several commenters indicated that the proposed definition of ''storage tank'' is inconsistent with the ICR, MACT floor calculations for both storage tanks and process vents, EPA applicability determination documents, and other MACT rules; likely to lead to compliance confusion; and likely to force replacement of many existing floating roof tank controls at huge costs for negligible benefits. Many of the commenters recommended revising the storage tank definition to match the actual assignment of tanks in the storage tanks database and recalculating the MACT floor.

Response: The definition of ''storage tank'' in the proposed rule was based on the treatment of process tanks and storage tanks in the pharmaceuticals industry, a predominantly batch industry. The basis for only considering raw material feedstock tanks as true storage tanks was that the product tanks were seldom of the size at which the storage tank capacity cutoffs were set in many rules, and that a predominant number of tanks were used within processes as feed tanks from one unit operation to another. As such, emission events from these tanks usually would be calculated based on displacement resulting from filling the tank, usually on a per batch basis, and included in the operating scenario for an entire process. Emissions, therefore, were tied to the number of batches produced, as the material was transferred into and out of these tanks during each batch. We consider these tanks to be true process tanks and expect that the batch processors in the miscellaneous organic chemical manufacturing industry would agree with this treatment.

We recognize, however, that this industry contains significant numbers of continuous processors. We also recognize that this industry is more varied than the pharmaceuticals industry and that there are more tanks that are of a size and function that would be treated as storage tanks in other rules. For example, product rundown tanks and product storage tanks are not based on the number of batches, and material remains in the tank or is ''stored'' on a fairly continuous basis. The tanks are not filled and emptied during batch operations. These tanks are storage tanks and are recognized as such in the final rule.

We agree that the responses to the section 114 ICR would be based on the HON and NSPS definitions, and we have revised the storage tank definition to be consistent with the HON and NSPS. Although defined separately, the HON treats surge control vessels and bottoms receivers, types of tanks found in predominantly continuous processes that function in receiving material between continuous operations, exactly like storage tanks. We kept these terms and requirements in the final rule, but revised the definition of surge control vessel to be consistent with the definition of continuous process vent (*i.e.*, surge control vessels must precede continuous reactors or distillation operations). We also added a definition for ''process tank'' to clarify which tanks we would consider as part of the batch process vent standards. The changes do not affect MACT floors; they only change applicability under the storage tank standards or under the batch process vent standards.

F. Standards for Wastewater Systems

Comment: Numerous commenters urged elimination of the requirement to enclose sewers and tankage for conveyance to treatment of wastewater streams with primarily soluble HAP. The commenters stated that soluble HAP do not volatilize significantly from wastewater streams upstream of biological treatment, but the cost to suppress emissions would be significant. Some commenters suggested exempting from control those

wastewater streams that contain soluble HAP unless at least 5 percent of the total soluble HAP is emitted from the waste management units. Commenters were particularly concerned about this issue for the final rule because much more methanol is present in miscellaneous organic chemical manufacturing processes than in processes subject to the HON, particularly because 40 CFR part 63, subpart FFFF, applies to HAP that are used as solvents. Another commenter claimed the available data do not support a floor of HON-equivalent control for streams with HAP concentrations less than 10,000 ppmw.

Response: We considered the request for separate treatment of wastewater containing soluble HAP. We began by reviewing the miscellaneous organic chemical manufacturing wastewater database, and we determined that wastewater containing soluble HAP compounds are generally managed separately from wastewater containing partially soluble HAP compounds in this industry. This separate treatment by the industry justifies the evaluation of separate floors in accordance with the commenter's requests. For the 60 facilities in the miscellaneous organic chemical manufacturing wastewater database, there are a total of 364 records (streams), excluding streams with HAP that are not listed on Table 9 to subpart G of 40 CFR part 63 (the HON), HAP concentrations less than 1,000 ppmw, and HAP concentrations greater than or equal to 1,000,000 ppmw. Of this total, 192 of the streams contain partially soluble or a mixture of partially soluble and soluble HAP, and 172 of the streams contain only soluble HAP. Only 26 streams contain a mixture of soluble and partially soluble HAP.

When we reevaluated the floors separately, we found that for the partially soluble and mixed streams, data show that considerably more than 12 percent of the streams that meet either of the HON cutoff criteria also received treatment consistent with HON treatment requirements (*i.e.*, the best-performing miscellaneous organic chemical manufacturing sources are those that implement HON-equivalent procedures). Of the 53 streams with flowrates greater than 1 lpm and concentrations of partially soluble or mixed streams less than 10,000 ppmw, nine are managed and treated according to HON levels. Therefore, we revised the flow cutoff in the MACT floor from 10 lpm to 1 lpm for streams with concentrations greater than or equal to 1,000 ppmw and less than 10,000 ppmw; the other cutoffs of greater than or equal to 10,000 ppmw at any flowrate for partially soluble and mixed streams are unchanged. Another 42 streams had flowrates between 0.1 and 1.0, but only one was controlled. Therefore, we concluded that a sufficient number of streams below the cutoffs were not controlled to support a no emissions reduction floor determination.

We also identified a MACT floor for the 172 wastewater streams at 33 facilities that contain only soluble HAP. We ranked the 33 facilities based on the lowest concentration and flowrate of a wastewater stream that was managed and treated according to the HON requirements. The top five facilities were found to manage and treat all their soluble HAP containing wastewater consistent with the requirements in the HON. The median of the lowest concentrations in wastewater streams at these five facilities was found to be 30,000 ppmw. The lowest soluble HAP load for any stream at the five MACT facilities was 1,663 lb/yr (which we rounded to 1 tpy). Therefore, we determined that the MACT floor consists of the management and treatment requirements in the HON for wastewater streams containing at least 30,000 ppmw of soluble HAP and at least 1 tpy of soluble HAP. Wastewater streams with soluble HAP above these concentration and load cutoffs are considered Group 1 wastewater streams in the final rule. We also evaluated a beyond-the-floor alternative based on controlling streams with mixed HAP at flowrates greater than 0.5 lpm and streams that contain soluble HAP at concentrations greater than 15,000 ppmw. The total impacts of this alternative were determined to be unreasonable. Therefore, we set the standard for existing sources at the MACT floor.

For new sources, we determined the MACT floor for wastewater containing soluble HAP to be a concentration of 4,500 ppmw at the 1 tpy load. The 4,500 ppmw corresponds to the lowest concentration of a stream containing only soluble compounds that was managed and treated in accordance with the HON. The 1 tpy load cutoff was not lowered in going from the existing source standard to the new source standard because this level already represents the lowest load cutoff of any stream at the five MACT facilities and, therefore, represents the performance of the best-controlled similar source.

Comment: Two commenters indicated the proposed rule lacks criteria for evaluating affected wastewater streams from batch process units and specialty chemicals manufacture. One of the commenters suggested revising the rule so that the emission thresholds for wastewater are determined over a representative batch cycle. To accomplish this, the commenter suggested that the following definitions be added to the rule:

- ''Annual average'' means the average over a designated 12-month period of actual or anticipated operation of the MCPU generating wastewater, except for units that are flexible operations or part of flexible operations. For flexible operation units, ''annual average'' means the average for a standard batch that is representative of the designated 12-month period of actual or anticipated operation of the MCPU generating wastewater.
- ''Standard batch'' means a batch process operated within a range of average or typical operating conditions that are documented in an operating scenario. Emissions from a ''standard batch'' are based on the production activity or product that result in the highest mass of HAP in the wastewaters generated by the process equipment during the batch cycle.

The second commenter noted that the proposed rule refers to § 63.144(c) for establishing the annual average flowrate for wastewater streams (*i.e.*, total wastewater volume divided by 525,600 minutes in a year). The commenter supported this for continuous process units, but recommended that the rule use criteria from 40 CFR part 63, subpart GGG, for batch process units since the wastewater streams from batch operations may only be operational a few months per year.

Response: The format for applicability is annual average flowrate based on the potential maximum amount of operating hours per year (*i.e.*, 8,760). Although the procedure was developed for continuous processes, it can be applied to batch processes. When multiplied out, the total flow of wastewater equivalent to 1 lpm and 8,760 hr/yr equals 0.14 million gal/yr (530 m 3 /yr). We recognize that the proposed rule did not contain guidance on how to interpret annual average for batch processes although our definition of wastewater stream described a single wastewater stream as being discarded from an MCPU through a single POD. Our intent with this language was to include all wastewater streams from single processes that were discharged through a single POD as one single wastewater stream. In the HON, annual average concentration is the total mass of compounds listed in Table 9 to subpart G of 40 CFR part 63 that are in the wastewater stream during the designated 12-month period divided by the total mass of the wastewater stream during the 12-month period. There is no separate consideration in the HON for

multipurpose batch operations or POD that serve numerous processes because the equipment is part of a flexible operation.

For 40 CFR part 63, subpart FFFF, however, we based the MACT floor on data from wastewater streams that were developed based on our proposed definition of wastewater. Therefore, the definition of annual average is based on wastewater streams from a POD from a single MCPU. For flexible operations (*e.g.*, multipurpose equipment not dedicated to any single process), we have incorporated the concept of a family of materials that considers as a single product the manufacturing processes of multiple materials that are related. Additionally, we consider ''nondedicated solvent recovery operations'' as a single process. Therefore, in these two circumstances, the definition of wastewater stream should be based on the total mass and flow out of the POD from the sum of all operations considered within the family of materials or within the recovery process. In all other cases, the flow and concentration of HAP should be based on the total flow of wastewater and mass of HAP from all batches of a single process.

The final rule requires a manufacturer of a family of materials in flexible operation units to determine the annual average using a procedure consistent with that described by the commenter. Specifically, the worst-case product would determine the standard batch, and the total flow of wastewater would be based on the total flow of wastewater generated by all batches manufactured in any 12-month period. However, if materials manufactured in the flexible operations fell among more than one product not considered part of a family of materials, we would consider these separate processes, and the annual average concentration and flow would be limited to the characteristics of each process.

Comment: Consistent with comments on the definition of the miscellaneous organic chemical manufacturing process, one commenter suggested revising the definition of ''maintenance wastewater'' to clarify that wastewater from routine cleaning operations occurring within a batch process is not considered maintenance wastewater. Another commenter noted that some cleaning operations are performed for equipment preparation and to remove inorganic scale from the equipment on an occasional, though somewhat regular basis. The commenter observed that these operations are performed between batches, though not between every batch or even between batches of different grades. They are performed when maintenance is needed or plugging is evident. The commenter asked for clarification that the types of cleaning operations that do not generate maintenance wastewater are those performed between batches for the purposes of changing grades and not those done to prepare equipment for maintenance or to remove inorganic foulants.

Response: We agree with the commenters regarding the need to exclude non-routine cleaning operations from other process wastewater streams and have included them in the definition of ''maintenance wastewater.'' This issue is analogous to the issue of including vents from routine cleaning operations as process vents and covering other types of events under the SSM provisions.

Comment: One commenter requested an exemption from the offsite certification requirement in 40 CFR 63.132(g)(2), (3) and (4) for any facility electing to discharge wastewater streams to a RCRA-permitted treatment, storage, and disposal facility (TSDF) under 40 CFR parts 264 and 265. The commenter asserted that a RCRA TSDF should be presumed to be acceptable compliance equipment for miscellaneous organic chemical manufacturing facilities, and this presumption should be explicitly stated in the final rule.

Response: We agree that RCRA TSDF satisfy the compliance requirements in the final rule. The proposed subpart FFFF explicitly stated that performance tests, design evaluations, and related monitoring, recordkeeping, and reporting would not be required when a hazardous waste incinerator is used to meet emission limits. This provision is retained in the final rule through the reference to § 63.988(b)(2), and it applies to offsite treatment facilities as well as affected sources. To simplify and clarify the requirements for offsite treatment facilities, the final rule states that the affected source may indicate in its notification of compliance status (NOCS) report that it is shipping the wastewater to an offsite treatment facility that meets the requirements of 40 CFR 63.138(h), and that the wastewater will be treated as hazardous waste; this documentation may serve as the certification from the offsite treatment facility.

G. Standards for Equipment Leaks

Comment: Three commenters stated that the docket does not support our conclusion that the HON LDAR program is the MACT floor. Two of the commenters also opposed our approach of assigning a single LDAR program to each facility. They noted that facilities do not always use the same LDAR program for all of their processes. According to one commenter, there also are numerous errors and inconsistencies between various background memoranda, the section 114 ICR responses, and the equipment leaks database that EPA distributed to industry, with no documentation in the docket to explain the differences. After obtaining new information from some of the facilities in the database, the commenter saw no support for a determination that HON-equivalent controls establish the MACT floor (*i.e.*, of the estimated 1,220 processes, only 34, or 2.8 percent, appear to have HON-equivalent programs). The other two commenters indicated that the floor (and standard) should be based on either the LDAR program in the SOCMI NSPS (40 CFR part 60, subpart VV) or subpart TT of 40 CFR part 63 (the Generic MACT).

Response: After considering the comments and reviewing the available data, we decided to determine the MACT floor on a process basis because some facilities do not implement the same LDAR program for all of their miscellaneous organic chemical manufacturing processes. Therefore, we decided to reevaluate the MACT floor on a process basis. Before revising the analysis, we also reviewed the specific data entries that were disputed by the commenters.

Regrettably, the database that was made available to the industry was not consistent with the final database that we used to develop the MACT floor prior to proposal. As a result, many of the discrepancies identified by commenters are addressed simply by using the correct database.

We also reviewed other changes that the commenter recommended and made corrections to the database under the following two circumstances: when a process is subject to the HON so that only the batch process vent emissions are subject to subpart FFFF, and when a facility representative informed the commenter that a non-HON LDAR program or no program is implemented for a miscellaneous organic chemical manufacturing process. After making the revisions, we found 51 of 1,139 processes are controlled to the HON LDAR (*i.e.*, the best-performing LDAR program in use at miscellaneous organic chemical manufacturing sources), or 4.5 percent controlled. Based on this result, we could not justify a MACT floor at the HON level of control.

Therefore, we reexamined the processes subject to other LDAR programs to develop a revised MACT

floor. A few processes are subject to LDAR programs required by the State of Louisiana, but most other processes subject to LDAR programs are implementing various programs required by the State of Texas or the program in 40 CFR part 60, subpart VV. For this analysis, we considered the Texas programs and the subpart VV program to be essentially equivalent because they all require only sensory monitoring for connectors. These programs also are equivalent to the program in 40 CFR part 63, subpart TT. Only LDAR programs designated as audible/visual/olfactory (*e.g.*, not Method 21 monitoring) were not considered at least equivalent to subpart TT. We found that 236 of the 1,139 processes, or 21 percent, were controlled at least to the subpart TT level. Therefore, we set the floor based on the requirements of 40 CFR part 63, subpart TT.

Based on the revised MACT floor, we conducted an analysis of the cost of going above the floor to the 40 CFR part 63, subpart UU, program. In conducting this analysis, we revised our estimated uncontrolled emissions for our model processes by using the initial leak rates submitted by the industry in their comments. At the leak definitions of 500 ppmv for connectors and valves and 1,000 ppmv for pumps, we calculated leak rates of 0.35 percent for connectors, 6.47 percent for pumps, and 1.66 percent for valves from the data submitted by the industry. We also compared these leak rates and their resulting emission rates to data collected in the development of the Polymers and Resins IV NESHAP and found good agreement. The polymers and resins industry leak rates were 0.61 percent for connectors, 8.71 percent for pumps, and 1.4 to 1.8 percent for valves. To estimate reductions achieved by the LDAR programs, we assumed that the reduction achieved by the subpart UU program would be equal to the emissions estimated at the performance level of the program. We assumed that the subpart TT program would be half as effective as subpart UU for pumps, valves, and connectors, and that the reductions for pressure relief valves, open-ended lines, and sampling connections would be the same under both programs.

We also revised elements in our cost analysis to address commenter concerns. The revised analysis assumes that a facility required to implement an LDAR program will hire a subcontractor based on our understanding that this is the preferred and common alternative over the implementation of an in-house program. The analysis also made use of revised cost data from the project files of the Polymers and Resins IV NESHAP.

The revised cost analysis shows that for processes with continuous process vents, the cost of the subpart TT program (the MACT floor) is $3,200/Mg, the cost of the subpart UU program is $2,800/Mg, and the incremental cost to go beyond the MACT floor to the subpart UU program is $470/Mg. These costs are considered reasonable. Conversely, for batch processes, the costs of the beyond-the-floor option were determined to be unreasonable. Therefore, we decided to set the standard at the MACT floor for processes with only batch process vents, and we selected the beyond-the-floor option of subpart UU for processes with at least one continuous process vent.

Comment: Several commenters generally supported the pressure testing option in § 63.1036(b) of subpart UU, which requires that new or disturbed equipment be tested for leaks before use. However, the commenters are concerned that § 63.1036(b)(1)(iii) could be interpreted as requiring facilities to conduct leak tests whenever flexible hose connections are changed as part of a reconfiguration to make a different product or intermediate. The commenters stated that these leak tests would be burdensome because (1) changing flexible hoses to make different products may occur as frequently as daily or weekly, which would substantially increase the cost of conducting LDAR programs and take away from operating time, resulting in lost production and sales; (2) more frequent leak tests would also result in more emissions because the equipment must be purged to conduct the tests; and (3) flexible hoses that have been water tested would often have to be flushed with solvent prior to startup, which would add more turn-around time and increase waste generation. According to one commenter, connecting flexible hoses in different configurations is the type of ''routine'' seal breaks that were not intended to trigger LDAR pressure testing requirements. Thus, the commenters recommended revising § 63.1036(b)(1)(iii) to exempt all routine seal breaks of flexible hoses from LDAR requirements. One commenter also recommended that pressure testing be allowed as an option for sources that comply with the requirements in 40 CFR part 63, subpart TT.

Response: We agree with the commenters that pressure testing each time process equipment is reconfigured only by changing flexible hose connections at a transfer station is excessively burdensome and likely to lead to more emissions than it prevents. Therefore, the pressure test option in the final rule allows this type of routine disturbance without the requirement to conduct a new pressure test. Since the final rule allows compliance with the requirements of 40 CFR part 63, subpart UU, as an alternative to the requirements of 40 CFR part 63, subpart TT, an owner or operator may comply with the pressure testing option in subpart UU as an alternative to the requirements of subpart TT.

H. Standards for Transfer Racks

Comment: One commenter indicated the MACT floor for transfer racks was established incorrectly and stated that we have no section 114 ICR data to support the transfer racks MACT floor because this information was not requested for the miscellaneous organic chemical manufacturing source category. The commenter indicated that using transfer rack data from HON sources or Organic Liquid Distribution (OLD) NESHAP sources is not appropriate for the miscellaneous organic chemical manufacturing source category, even if it does streamline the compliance process. The commenter noted that the Group 1 requirements of subpart G of the HON apply to a different source category manufacturing different chemicals in continuous, generally high-volume processes. The commenter claimed we made a ''leap of faith'' in assuming that the emission and control data for one source category are appropriate to another totally distinct category. The commenter could find no documentation indicating that subpart G continuous process load rates and vapor pressure cutoffs are applicable to batch subpart FFFF facilities. The commenter argued that setting a MACT floor using ''existing available data'' from a different source category is inconsistent with CAA requirements and requested that an actual transfer rack MACT floor determination be made prior to establishing the subpart FFFF control requirements.

Response: The MACT floor was based on the HON requirements. We did not have any specific data from our source category, but we relied on information that many of the facilities in this source category are co-located with facilities subject to the HON. The commenter objected to our assumptions because the HON applies to continuous, high volume production processes. Although subpart FFFF applies to many processes, batch specialty chemicals are a major component of the source category, and we agree that individual products are typically manufactured in lesser volumes than typical products in the HON source category. However, we

note that transfer operations, which by definition consist of the loading racks for tank trucks and rail cars, are more specific to the size and type of vessel being loaded than the process that generates the products.

These tank trucks and rail cars are standard in size and configuration so that the same tank trucks and rail cars would be expected to carry material from either source category. Further, pumps, loading arms, and vapor collection and control equipment are not as much dependent on the process that generates the materials as the products themselves which are composed of either pure HAP or solutions containing significant amounts of HAP.

Our data indicate that 60 percent of the facilities that contain miscellaneous organic chemical manufacturing processes also contain processes subject to the HON. Additionally, we would expect that transfer racks located at these facilities would be used to load materials from both HON and miscellaneous organic chemical manufacturing processes. Therefore, we consider it reasonable to assume a MACT floor based on the requirements of the HON.

The HON standards were established based on the lowest yearly loading rates that are controlled in the source category. Because the HON source category manufactures at typically higher volume production than what would typically be expected in the miscellaneous organic chemical manufacturing source category, and control requirements are based on the rack weighted average partial pressure of HAP, it offers a conservative approach to the MACT floor when applied to the batch specialty chemical industry. Therefore, only transfer racks that load miscellaneous organic chemical manufacturing products containing significant amounts of HAP are affected by the control requirements.

I. Pollution Prevention

Comment: Three commenters stated that the pollution prevention (P2) option should be broadened to allow more nondedicated batch operations or groups of nondedicated batch operations to use P2 for compliance. The commenters maintained that calculating and tracking HAP factors for individual nondedicated processes would not be viable for small operations. One commenter was concerned that only dedicated solvent recovery operations may be included in a P2 demonstration; nondedicated solvent recovery operations may not be considered in conjunction with the processes for which they recover solvents for the P2 alternative standard. Similarly, another commenter stated that the proposal is not viable because waste solvents from numerous nondedicated batch processes are collected and refined at a central recovery unit, and § 63.2495(b)(2) of the proposed rule would preclude the merging of nondedicated solvent recovery with other processes. The commenter suggested including all of the operations in the calculation of a HAP consumption factor (including nondedicated recovery operations that receive and recover solvents for the operations). In addition, the commenter suggested that the production rate should exclude isolated intermediates to appropriately reflect the benefits achieved when measures are taken to eliminate isolation of intermediates. Because the boundaries are well defined, the commenter indicated that such an approach would be clearer to implement and enforce. To incorporate this approach, the commenter suggested adding a statement to the rule that says you may comply with the P2 option for multiple processes and associated recovery operations if the Administrator approves your P2 methodology submitted in the precompliance report.

Response: After examining the approach suggested by the commenters, we have concerns that it would not be consistent with the goals of P2 and also would not preserve the reductions in HAP consumption that would occur if the P2 alternative were limited to each product. The commenters suggested facilitywide groupings to demonstrate overall reductions in the HAP consumption factors. One of our major concerns stems from the fact that specialty chemical facilities will not manufacture the same products from the baseline years to the contemporaneous period. Under their suggested grouping concept, however, a baseline factor could be developed from a different set of products than those in the contemporaneous period. In this situation, a facility could demonstrate a reduction in the HAP factor by simply not manufacturing products that have high HAP consumption. Although these efforts could result in a net benefit to the environment, they are not considered P2 strategies and, therefore, an owner or operator should not take credit for these changes. Secondly, using the same groupings concept, a manufacturer could effectively reduce the overall usage of HAP in a production process in any given year, but increase the HAP factor for that product and still meet the grouping target reductions, but not the target reductions on individual product lines. This would effectively allow an owner or operator to comply with a P2 alternative that could increase the inefficiency and waste within a process. Therefore, combining processes or groups of processes as suggested by the commenters is not appropriate, and we have not revised the alternative per the commenter's requests.

We also clarified language regarding merging processing steps conducted offsite to onsite for the purposes of redrawing a process boundary and claiming a reduction in consumption. For example, a solvent recovery step conducted offsite or as part of another process cannot later be moved onsite or to another process and used to claim a reduction in consumption. Such a strategy does not result in true emission reductions, but rather is a result of moving process boundaries.

Comment: Several commenters were concerned that the proposed P2 option would not allow for the generation of HAP other than HAP being used in the process. They noted that based on the definition of ''consumption'' and § 63.2495(b) of the proposed rule, if the HAP used by the process are not the same as those generated in the process, then the generated HAP must meet the otherwise applicable standards. One commenter suggested revising the definition of consumption to include HAP generated in the process, and the other commenters suggested incorporating generated HAP into the calculation of the HAP factor or the target HAP reduction.

Response: We do not agree with the suggested changes. The P2 alternative specifies that HAP generated in the process that are not introduced into the process and part of the consumption factor must be controlled per the standard requirements. This restriction is needed to ensure that reductions anticipated from the implementation of the alternative will occur. Consider a situation where the incoming quantity of HAP is considerably less than the amount of HAP generated in the process. Further, suppose the entire quantity of HAP generated in the process is emitted through a process vent (*i.e.*, no waste or wastewater). If the P2 alternative were to allow the quantity of HAP generated to be considered as part of the consumption factor, then the P2 standard could be met by capturing and recovering only 65 percent of the HAP emitted, which may not preserve the reductions we anticipated from the implementation of the standards as written. Therefore, we have not

modified the alternative according to the commenters' requests.

J. Initial Compliance

Comment: Several commenters indicated that the proposed requirements to complete initial compliance demonstrations and submit the NOCS report by the compliance date are unworkable and unreasonably and unfairly shorten the 3-year compliance period. Based on the commenters' experience, the entire 3-year period is needed to permit, plan, design, procure, install, and shakedown the equipment necessary for MACT compliance. In addition, the 150-day period after the compliance date that other rules allow before the NOCS report is due allows facilities to properly test their control systems, perform necessary shakedown operations, and set the parametric operating limits using actual data. The commenters requested that the final rule defer to the General Provisions regarding the timeline for initial compliance demonstrations and allow the NOCS report to be submitted no later than 150 days after the compliance date. Another commenter requested that area sources that become major sources be allowed up to 3 years to comply with the final rule because the level of effort would be the same as for any existing source when the rule is promulgated.

Response: We accept the argument that some facilities with numerous processes and controls may need the full 3 years from the promulgation date to the compliance date to bring all of the equipment on-line before completing the initial compliance demonstration. Therefore, we decided to change the due date for the NOCS report. In the final rule, the NOCS report for all sources, including area sources that become major sources, is due no later than 150 days after the compliance date. In addition, the final rule specifies that the compliance date for area sources that become major sources is 3 years after the area source becomes a major source.

Comment: Several commenters indicated that references to § 63.1257(d)(2)(ii) of the pharmaceutical MACT in the proposed rule inappropriately restrict the use of engineering assessments. The commenters indicated that the rule should not require sources to demonstrate that the calculation methods specified in the rule are not appropriate in order to be allowed to calculate uncontrolled HAP emissions using an engineering assessment. The commenters also objected to language in § 63.1257(d)(2)(ii) that restricts the use of modified equations to those that the source can demonstrate have been used to meet other regulatory obligations. The commenters indicated that they should only be required to show that the selected method for determining uncontrolled HAP emissions is appropriate, and that it has no impact on the applicability assessment or compliance determination.

Response: We did not revise the restrictions on the use of the modified equations as requested because the suggested changes would not maintain our objective of having a replicable compliance protocol that is applied consistently across the source category. Therefore, the final rule, like the proposed rule, restricts the use of engineering assessments to situations where the equations are not appropriate.

Comment: Several commenters requested that the procedures for calculating uncontrolled HAP emissions be modified in the final rule so that it represents ''post condenser'' emissions if the condenser is recovering HAP for reflux, reuse, or use as a fuel. The commenters stated that, for many types of emission events, the proposed equations would require the use of the vessel temperature rather than the temperature of the receiver that receives condensed liquid. The commenters indicated that the procedures ignore the emission reduction realized by the condenser, inflates the uncontrolled emissions, and is inconsistent with the MACT floor database.

Response: We disagree with the suggested change. Our position is that uncontrolled emissions should be determined at the point the vent stream leaves the process and prior to entering any control device. A condenser that meets the definition of ''process condenser'' is considered integral to the process, and uncontrolled emissions are calculated at the outlet of the condenser. Process condensers must initiate vapor-to-liquid phase change in an emission stream from equipment that operates above the boiling or bubble point, including condensers located prior to a vacuum source. All other condensers serve primarily to reduce or remove air pollutants, with or without some product recovery benefits; therefore, uncontrolled emissions should be calculated prior to the condenser. This approach does not inflate uncontrolled emissions; it characterizes them properly. Furthermore, if a condenser is determined to be an air pollution control device, the removal efficiency is included as part of the overall control efficiency for the process; it does not ignore the emission reduction realized by the condenser. Finally, we consider the approach to be consistent with our database because we provided clear instructions with the ICR regarding how to report emissions from condensers, and we trust that most respondents followed those instructions.

Comment: Two commenters objected to the proposed requirements for testing control devices that treat emissions from batch process vents under absolute or hypothetical worst-case conditions, as described in the Pharmaceutical Production MACT (§ 63.1257(b)(8)). One of the commenters was concerned that facilities would be forced to generate unwanted or off-specification material in order to satisfy the requirements for worst-case conditions. This commenter requested that the final rule either defer to the General Provisions at § 63.7(e)(1), which require testing under normal operating conditions, or replace paragraph § 63.2470(c) in its entirety with a reference to the performance test requirements of 40 CFR part 63, subpart SS. The second commenter stated that the worst-case testing provisions are technically infeasible and unjustified based on existing EPA regulations. That commenter noted that the Polymers and Resins IV NESHAP recognized this issue and require sources to test under worst-case actual production conditions as opposed to hypothetical worst-case conditions (*i.e.,* § 63.1325(c) of subpart JJJ).

One commenter also suggested that worst-case conditions may not always occur at the highest pollutant loading. According to the commenter, the control efficiency of thermal oxidizers generally increases as the loading increases, and the more challenging compliance demonstration would, therefore, occur under actual/normal operating conditions when the pollutant loading is changing several times over the course of a batch cycle. The commenter requested that the final rule allow facilities the option of using either the Polymers and Resins IV NESHAP testing protocols or the Pharmaceutical NESHAP testing protocols as a site-specific election in the pre-test protocols that facilities must submit prior to testing.

Response: We disagree with the commenters' suggestion that sources be allowed to conduct performance tests under ''normal operating conditions.'' Specifically, we disagree with a commenter's contention that operators would be forced to generate unwanted or off-specification material in order to satisfy the requirements of worst-case conditions. The final rule, like the proposed rule, allows the source to test under ''hypothetical worst-case conditions'' as an alternative to testing under absolute worst-case conditions. Hypothetical worst-case conditions are

simulated test conditions that, at a minimum, contain the highest HAP load of emissions that would be predicted to be vented to the control device based on an emission profile developed by the owner or operator. For example, an owner or operator could arrange to boil off a more volatile compound than those actually used in processes in separate equipment that can be connected to the ductwork upstream of the control device (if the emissions profile shows that this would represent worst-case conditions for the control device) and then test the control device. In this example, the owner or operator would not have to manufacture any unplanned products or generate products that do not meet normal specifications.

Also, when sources test under worst-case conditions, this should eliminate (or at least reduce) the need for any retesting at a later date when conditions change. If a source tested under ''normal operating conditions,'' then any change from these conditions could/should trigger a need to retest the source under the ''revised'' normal operating conditions. The concept of worst-case conditions allows sources to anticipate potential changes so that only one (initial) test is generally required.

We agree with the commenter's assertion that worst-case conditions for thermal oxidizers may not occur at the highest pollutant loading. One extreme is when inlet concentrations are low (less than 1,000 ppmv). For these inlet conditions, the final rule allows compliance with a 20 ppmv outlet concentration limit instead of requiring 98 percent reduction. For streams with higher concentrations, higher loads are likely associated with higher flowrates. As the flowrate increases, residence time in the combustion chamber decreases, which could reduce performance. Therefore, we require the test at highest load.

Comment: One commenter stated that facilities should be able to use the results of compliance testing in one reactor configuration done under another MACT standard for an identical configuration regulated under 40 CFR part 63, subpart FFFF, even if the HAP vent to two separate, yet identical control devices.

Response: The final rule does not allow sources to ''borrow'' test results from one control device and apply those results to another ''identical'' control device. Factors other than the design of a control device can affect its performance and, therefore, each control device must be tested separately.

Comment: One commenter requested that we allow facilities the option of using EPA Method 320 for any initial compliance option for batch or continuous streams and allow the use of EPA Method 320 for continuous emission monitoring systems (CEMS) that monitor HF, other fluorochemicals, and halogenated compounds in addition to those that monitor HCl.

Response: We agree with the commenter that EPA Method 320, Fourier Transform Infrared (FTIR), is an acceptable method to demonstrate compliance for any type of batch or continuous vent stream. Therefore, the final rule includes EPA Method 320 as an option for measuring any of the listed HAP in a vent stream. We note, however, that unless Method 320 has been validated at a ''similar source,'' the tester must validate Method 320 for that application by following the procedures in Section 13 of Method 320. To clarify the requirements for CEMS, § 63.2450(g)(1)(i) of the final rule specifies that a monitoring plan is required for CEMS other than an FTIR meeting Performance Specification (PS) 15 to measure hydrogen halide and halogen HAP, rather than only HCl.

Comment: Three commenters requested changes and clarification of the requirements for establishing operating limits. One commenter requested that the requirements be consistent with those in § 63.1334(b)(3) of 40 CFR part 63, subpart JJJ. A second commenter interpreted the proposed language to mean that an average is calculated from the values of the three test runs and then an engineering analysis may be applied to establish an operating limit that accounts for expected process variation. That commenter also requested a description of the process to be used and the timeframe under which the Administrator will conduct the review and approval of operating limits established in accordance with § 63.2470(e)(3)(i) of the proposed rule.

A third commenter took issue with the requirement that the operating parameter(s) be set at the average value measured during the performance test. The commenter noted that other chemical industry regulations allow the measured value to be adjusted based on engineering assessment and claimed that this is critical because performance tests must be run at representative conditions because of process variability, production schedules, and ambient conditions, e.g., a condenser may be tested on a cool day but the outlet temperature for compliance must reflect the hottest day as well.

Response: The final rule references the procedures in 40 CFR part 63, subpart SS, for establishing operating limits, except that for control devices used for batch process vents, § 63.2460(c)(3) specifies additional procedures for setting the limits. Although the provisions differ slightly from what is described by the third commenter in that the performance test must be conducted at worst-case conditions, owners or operators can utilize engineering assessments to develop either a single limit for the entire process or multiple levels for different emission episodes within the process. These requirements ensure that the performance test captures challenging conditions that are not always present because of the variable nature of batch vents. If no Group 1 batch process vents are vented to the control device, then operating limits may be set using the results of the performance test and engineering assessment procedures as specified in subpart SS and consistent with the procedures described by the commenter. For batch process vents, we consider it appropriate that the initial compliance procedures in 40 CFR part 63, subpart FFFF, be consistent with the procedures in 40 CFR part 63, subpart GGG.

The final rule explicitly states in § 63.2460(c)(3) that operating limits based on the results of performance tests supplemented by other information must be reported in the source's precompliance report and approved by the Administrator. However, operating limits based on the average of the three test runs do not require preapproval. The final rule, like the proposed rule, also requires the owner or operator to submit in the precompliance report the test conditions, data, calculations, and other information used to establish operating limits in accordance with § 63.2460(c)(3). The precompliance report will be approved or disapproved within 90 days after receipt by EPA.

Comment: Several commenters indicated that the proposed rule did not address situations where a process has both batch and continuous unit operations or cases where batch vents and continuous vents are combined into a common header system. Another commenter suggested that batch vents manifolded together with continuous process vents should be treated as continuous process vents. Two of the commenters suggested that we resolve the issue of combined vent streams by deferring to 40 CFR part 63, subpart SS, for regulation of process vents. One commenter noted that subpart SS contains language at § 63.982(f) that governs how compliance with manifolded vents is determined and requested that this concept also be extended to allow for control devices that control vents subject to more than

one MACT standard, where completion of a successful compliance determination for one standard meets the compliance determination requirements of the other MACT standards where the control device controls similar HAP. Other commenters suggested that we allow compliance demonstrations for combined streams similar to the provisions under the Generic MACT for the Polycarbonate Production source category (40 CFR part 63, subpart YY), and add a definition of ''combined vent stream'' based on the definition in 40 CFR 63.1101 (subpart YY).

Response: The final rule clarifies requirements for combined streams in a manner similar to that described in § 63.982(f), but extends these requirements to deal with batch process vents and wastewater vent streams. For a combined stream, if any of the continuous process vent streams within the aggregated stream would be Group 1 by themselves and the batch streams are not Group 1, then the provisions of subpart SS may be followed in demonstrating 98 percent control of the combined aggregate stream. If a combined stream contains Group 1 batch process vents, then the initial compliance provisions for batch process vents must be followed in demonstrating 98 percent control of the combined aggregate stream. Also, the final rule does not allow an option to raise the TRE above 1.0 using a recovery device.

Subpart SS requires that the performance test be conducted at maximum representative operating conditions and only over the batch emission episodes that result in the highest organic HAP emission rate that is achievable during the 6-month period that begins 3 months before and ends 3 months after the compliance assessment. In contrast, the initial compliance provisions for batch process vents provided in the proposed rule would require that the test be conducted at worst-case conditions. For industries where products and operations remain fairly constant, there should be no significant difference between the ''worst-case conditions'' described by the batch process vent initial compliance provisions and the ''maximum representative'' conditions required by subpart SS. However, for control devices that might see a wide variability of products and emission stream characteristics, such as those in the miscellaneous organic chemical manufacturing industry, the test required by subpart SS may not be representative at a later date when products have changed. Therefore, compliance with the batch testing provisions is a more comprehensive requirement, and we are inclined to retain it under most circumstances. However, in cases where the combined stream includes Group 2 batch process vents and no Group 1 batch process vents, we agree that owners and operators should be allowed to follow the compliance demonstration requirements of subpart SS.

A second issue occurs when combining streams changes the characteristics of the aggregate stream such that less emission reduction may occur. Because control requirements are 98 percent under both the batch provisions and continuous (subpart SS) provisions, this is not an issue for streams routed to control devices. However, for recovery devices, there are differences between meeting 95 percent recovery under the batch process vent provisions and meeting a TRE index under subpart SS. For example, the overall required emission reductions could be lessened by combining a number of low-concentration batch streams, that would not trigger control under the batch requirements, with a rich continuous stream that would require significant control or recovery of material by itself, which would raise the outlet TRE value at the outlet of the recovery device and allow use of an ineffective recovery device and no further control. Similarly, emission reductions could be lessened by aggregating rich batch vents (with uncontrolled emissions of greater than 10,000 lb/yr) with continuous vents and allowing less than 95 percent control by meeting the TRE. In either case, the use of a recovery device to raise the TRE index above 1.0 could result in actual emissions above the level required had the streams not been aggregated and, therefore, we are not allowing this option. Thus, all Group 1/Group 2 determinations for vent streams must be made prior to aggregation and prior to any recovery device.

K. Ongoing Compliance

Comment: One commenter requested that the monitoring provisions be modeled after 40 CFR part 63, subpart SS, for continuous vents, and that we establish a similar cost-effective level for batch process vents. Another commenter stated that the requirements for continuous parameter monitoring systems (CPMS) are more fully and correctly covered in subpart SS and that the periodic verification requirements of § 63.2470(f) are duplicative of title V, wasteful, and unnecessary.

Response: We decided to streamline the compliance procedures and promote consistency among rules by referencing subpart SS in its entirety for most of the monitoring requirements. For batch process vents, however, we retained some additional monitoring provisions from the proposed rule that are based on requirements in subpart GGG (the Pharmaceuticals Production NESHAP). One of these provisions allows the owner or operator to set monitoring parameter values (*i.e.*, operating limits) at levels other than what were obtained from the performance test.

A second provision consistent with subpart GGG is the ''periodic verification'' procedure for control devices with inlet HAP emissions less than 1 tpy (§ 63.2460(c)(5) in the final rule). We do not agree with the suggestion that title V periodic monitoring requirements are duplicative for control devices with less than 1 tpy HAP load. The title V periodic monitoring requirements in 40 CFR 70.6(a)(3)(i)(B) apply only where an underlying applicable requirement such as NESHAP require no monitoring of a periodic nature. Thus, the title V periodic monitoring requirements will not apply where the monitoring requirements of subpart FFFF do apply.

A third provision based on subpart GGG is the option to establish averaging periods over either an operating block or an operating day. This provision may be useful if each batch is not always completed within an operating day or when an owner or operator elects to set multiple operating limits for different emission episodes.

Comment: One commenter stated that the proposed monitoring and reporting requirements do not meet the enhanced monitoring requirements as set forth in section 114(a)(3) of the CAA and, therefore, are ''arbitrary and capricious.'' The commenter indicated that some sources are exempted from ''any truly effective monitoring strategy'' and that ''sources with greatest HAP emissions, which fall outside the MACT floor due to size, have loosest monitoring requirements.''

Response: We disagree with the commenter's assertions. The final rule, like the proposed rule, requires monitoring of all control devices. To minimize the burden on small operations (*e.g.*, small control devices controlling batch process vents), the monitoring requirements differ for lower-emitting sources; however, these sources are not ''sources with the greatest HAP emissions.'' In addition, § 63.2525(e) of the final rule requires recordkeeping of emission points that fall outside of the MACT threshold for control to be sure that these points remain below the threshold.

Comment: Two commenters took issue with the monitoring requirements for catalytic oxidizers. The first commenter claimed that testing of the catalyst activity is unnecessary (as long as the temperature differential is maintained, the catalyst is effective); is inconsistent with the requirements under other rules that frequently share the device; and would force annual outages of the control device for sampling with significant negative environmental impacts and costs. The commenter recommended that the monitoring requirements for catalytic oxidizers be based on the 40 CFR part 63, subpart SS, requirements, which are based on the HON requirements. The other commenter suggested that vendor guarantees/warranties for catalytic incinerators be allowed as an alternative to the annual catalyst test or quarterly temperature differential check. This commenter noted that some catalyst vendors will supply a warranty if certain work practices are followed, such as raising the inlet temperature according to a set schedule. This commenter's experience indicated that temperature differential set at maximum load across the bed is not a particularly good indicator of catalyst activity for a variable process vent stream.

A third commenter expressed support for the monitoring requirements for catalytic oxidizers in the proposed rule, but requested that we make it clear that the catalyst activity test is not the only compliance alternative allowed and define what an annual catalyst test entails. The commenter further stated that, if a performance test must be done annually, EPA should consider if the cost of a performance test (*e.g,* $15,000) can be justified annually. If verifying the catalyst activity does not require a performance test, then the commenter stated EPA should establish guidelines on how to conduct the annual test.

Response: We agree that maintaining a temperature differential across the bed is evidence that the catalyst is effective, and it is a valid means of demonstrating ongoing compliance. It also is the requirement specified in subpart SS and many other rules and by referencing subpart SS, it is included in the final rule. However, we also included the catalyst test option from the proposed rule because, as one commenter points out, it is difficult to maintain the required differential across the catalyst bed when the organic load into the catalytic incinerator fluctuates, even though it may actually still be achieving the same reduction efficiency. This could be a particular concern when the initial performance test must be conducted under worst-case conditions, which generally is the maximum load. This option requires catalyst bed inlet temperature monitoring and an annual catalyst activity level check. When monitoring only the inlet temperature, the catalyst activity level check also is needed; unlike thermal oxidizers, catalytic oxidizer performance cannot be ensured simply by monitoring the operating temperature. Catalyst beds can become poisoned and rendered ineffective without any apparent change in operation. An activity level check can consist of passing an organic compound of known concentration through a sample of the catalyst, measuring the percentage reduction of the compound across the catalyst sample, and comparing that percentage reduction to the percentage reduction for a fresh sample of the same type of catalyst. Based on information from a company that offers such services, the cost is less than $800.

We do not agree that vendor guarantees based on following specific work practices are an acceptable alternative for monitoring the performance of catalytic oxidizers. Our experience is that the performance of air pollution control devices can degrade over time if they are not properly maintained, and that most owners and operators try to follow the vendor's recommended work practices as a preventative measure. In some cases, the vendor guarantees are only valid during the first year of operation of the control device. More importantly, basing compliance solely on vendor guarantees (that are tied to work practices) would mean that an ''unexpected'' deterioration in the performance of the catalytic oxidizer would go undetected and unreported because no direct monitoring of the catalytic oxidizer would be performed. Therefore, the final rule does not include the suggested alternative.

Comment: Three commenters stated that the requirement for continuous pH monitoring for caustic scrubbers is unwarranted and often impractical. For batch operations, these commenters stated that it should only be necessary to verify that the scrubber is operating properly just before and just after each batch. The commenters also asserted that continuous pH meters are often unreliable in harsh service conditions and are subject to plugging, corrosion, or contamination.

Two commenters stated that measurement of pH is not appropriate for caustic scrubbers because most, if not all, have a pH near 14, which makes the measurement irrelevant. According to the commenters, the titration curve is typically so steep that the pH measurement is not useful in controlling the scrubber. These commenters requested that the final rule be written to allow the measurement of caustic strength without the need to request EPA approval; otherwise, numerous facilities will need to request approval to measure caustic strength daily in lieu of daily pH monitoring, which would appear to place an undue burden on facilities and the regulatory organizations that must review the site-specific plans.

Response: As previously noted, the final rule references the monitoring requirements in subpart SS. For all halogen scrubbers (including caustic scrubbers), § 63.994 requires continuous pH monitoring. We have decided to retain the requirement for continuous monitoring in the final rule. This approach maintains consistency with other rules that reference subpart SS. It also addresses the commenters' concern that the steep titration curve makes pH a poor parameter for daily monitoring when pH is normally about 14 (*i.e.*, for systems where the recirculating scrubber solution is replaced on a batch basis rather than continuously adjusted to maintain relatively constant conditions). Finally, we have decided to allow continuous measurement of caustic strength at the scrubber outlet as an alternative to the continuous monitoring of pH because caustic strength is directly related to pH.

Comment: Many commenters objected to the requirement to calculate a daily 365-day rolling summation of emissions to demonstrate compliance with the 10,000 lb/yr limit for batch process vents. According to these commenters, sources should be allowed to calculate a 12-month rolling summation instead of the daily summation because daily calculations would be burdensome, particularly for facilities manufacturing many products or products with emissions well below the limit. One of the commenters also suggested replacing the 365-day rolling summation calculation with methodology, like in 40 CFR part 63, subpart JJJ, whereby the highest-emitting batch recipe for any given product is determined and the number of batches are recorded to demonstrate that a process has less than 10,000 lb/yr uncontrolled emissions. Two commenters also are uncertain how to calculate daily emissions from batch processes that are carried out over several days. Another commenter indicated that the existing monitoring and recordkeeping requirements in title V and/or state minor new source review permits are sufficient to demonstrate compliance with the limit.

Response: In order to demonstrate continuously that uncontrolled organic HAP emissions from a process have not exceeded 10,000 lb/yr, the proposed rule would require daily calculations of the emissions in the preceding 365 days. It appears that the commenters interpreted this requirement to be much more involved than we intended. We expected that, as part of the initial compliance demonstration, an owner or operator would determine the uncontrolled batch process vent emissions for a standard batch and divide this value into 10,000 to determine the number of batches that could be run in a 365-day period. One way to demonstrate continuous compliance would be to track the number of batches produced each day and show that the running total number of batches for the preceding 365 days does not exceed the number calculated during the initial compliance demonstration. The only potentially complicating twist to this process is that the total has to be adjusted to account for any difference in emissions when a nonstandard batch is operated, but we expect such events to be uncommon.

The final rule retains essentially the same requirement as the proposed rule because daily summations are needed to demonstrate continuous compliance, and we do not consider the demonstration to be unduly burdensome. However, upon consideration of the comments, we have decided to make three changes in § 63.2525(e) in the final rule to clarify our intent and perhaps reduce the burden. First, to address the situation of a batch that is run during more than a single calendar day, we specify that the record that the batch was run should be assigned to the day the batch is completed. Second, we agree that physically calculating the summations does not need to be performed each day, provided the necessary data are collected in an appropriate fashion so that each of the daily calculations can be performed at a later date. The final rule allows the calculations to be performed monthly. Note that each day that exceeds the limit is still a separate deviation. Finally, we edited the language to clarify that alternative records that correlate to the total emissions, such as the number of batches, may be maintained.

Comment: Several commenters expressed concerns with the proposed quality assurance/quality control (QA/QC) requirements for continuous parameter monitoring and requested that they be removed from the rule. One commenter indicated that the proposed QA/QC requirements are being introduced in a piecemeal fashion while they are still evolving, are technically unworkable, impose substantial burdens for no apparent benefit, significantly reduce monitor availability, may have unfavorable environmental impacts, and may create safety concerns. In addition, the commenter indicated that the proposed design and data availability requirements overlap with or conflict with existing language in subpart SS. The commenter noted that we decided not to promulgate similar QA/QC requirements in subpart SS. The commenter indicated that the justification for not adopting the requirements in subpart SS is correct and should be applied for subpart FFFF as well. Other commenters also noted that EPA's Emissions Measurement Center staff and industry are working to develop QA/QC procedures for parametric monitoring, and they recommended relying on requirements in existing rules until those efforts are finalized. One commenter considered the proposed QA/QC requirements for pH probes and flow meters to be particularly impractical and burdensome.

Response: As mentioned previously, the monitoring requirements in the final rule are based largely on subpart SS and, thus, the sections of the proposed rule referenced by the commenters (*i.e.*, § 63.2475(c) through (f)) no longer apply. We have deleted these QA/QC requirements for the same reasons we decided not to implement similar proposed QA/QC requirements in subpart SS (67 FR 46260, July 12, 2002). Specifically, we are currently developing performance specifications for CPMS to be followed by owners and operators of all sources subject to standards under 40 CF® part 63, which includes subpart FFFF. Also, subpart SS currently specifies requirements for CPMS, and the requirements of subpart SS are referenced by 40 CFR part 63, subpart FFFF. Even though they may not be as specific as those proposed, we decided it would be premature to promulgate performance specifications for subpart FFFF when the performance specifications that would ultimately be promulgated for all 40 CFR part 63 may be significantly different.

Comment: Several commenters objected to the proposed requirement in § 63.2475(g) to install, calibrate, and operate a flow indicator at the inlet or outlet of a control device if the flow to that control device could be intermittent. One commenter recommended that § 63.2475(g) be deleted because the closed-vent system bypass monitoring provisions of subpart SS already indicate whether a control device is being bypassed. Similarly, the second commenter questioned the need for flow indicators and asserted that if the concern is diversion of the vent to the atmosphere, then this prohibition should be so stated. That commenter was also concerned that, since essentially all batch process vents have intermittent flows, the requirement for flow indicators on vents with intermittent flows translates into the installation of numerous flow indicators with high QA/QC costs. The commenter noted that car seals or monthly inspections are allowed in other rules and requested that the flow indicator requirement be withdrawn, or that we explain how the expense in maintaining such devices translates into an environmental benefit. A third commenter also questioned whether the intent was to detect no flow or to detect when a bypass is occurring. The commenter contended that detecting no flow for batch processes is not useful because the flows are intermittent. If the intent is to detect bypasses to the atmosphere, the commenter requested that the final rule incorporate text from 40 CFR 63.114(d)(1) and (2) to clarify the intent.

Two commenters requested that the final rule allow the following alternatives to the use of flow indicators: indicators of vent gas flow, such as duct positions or fan operation; and the use of on/off interlock type devices that are not subject to calibration. One commenter contended that maintaining records of an interlocked valve limit-switch position should be sufficient when the valve only opens to allow flow when pressure is above a specified level.

Response: The commenters are confusing the requirement in § 63.2475(g) of the proposed rule with the requirement in Item 4 of Table 5 of the proposed rule. Table 5 of the proposed rule would require a flow indicator in a bypass line to indicate any diversion of flow from the control device. On the other hand, the proposed requirement in § 63.2475(g) to install, calibrate, and operate a flow indicator at the inlet or outlet of a control device if the flow to that control device could be intermittent is for identifying periods when monitored parameter readings should not be included in the daily or block average. This provision was included because periods of no flow are equivalent to periods of non-operation (*i.e.*, the control device is not actually reducing emissions during these periods and, therefore, should not be used to demonstrate ongoing compliance).

Both provisions have been retained in the final rule. The requirements for

bypass lines are specified in 40 CFR 63.983(a)(3), which are referenced from § 63.2450 of the final rule. The requirement to use flow indicators to identify periods of no flow through control devices is specified in § 63.2460(c)(7) of the final rule. We also note that the final rule allows the use of car seals and lock and key configurations as an alternative to the use of flow indicators in bypass lines. Furthermore, the definition of ''flow indicator'' in 40 CFR 63.981 does not restrict the type of device that can be used as a flow indicator in a bypass line. However, we have not allowed seal mechanism alternatives in § 63.2460(c)(7) of the final rule because these techniques cannot identify periods of no flow through a control device.

The definition of ''flow indicator'' in 40 CFR 63.981 is also inadequate for the purposes of § 63.2460(c)(7) of the final rule because it includes any device that only indicates whether the valve position would allow gas flow to be present in the control device. Therefore, the final rule specifies that for the purposes of § 63.2460(c)(7), ''flow indicator'' means a device which indicates whether gas flow is present in a line. Also note that the required number of flow indicators required by § 63.2460(c)(7) is related to the number of control devices, not the number of batch process vents.

Comment: One commenter claimed that the requirement not to use periods of ''no-flow'' in data averages is impossible to meet because most regulated streams have many periods of no flow (*i.e.*, more than 25 percent of the time) and, thus, this requirement would force noncompliance with the data availability requirement. The commenter contended that no flow periods are only relevant when flow is the parameter being monitored (*e.g.*, scrubber flow). The commenter noted that, where the parameter being monitored is not flow, then as long as the control device is operating properly (*e.g.*, flare has pilot flame, combustion device is operating at or above its minimum temperature), the rule requirements are met, regardless of flow.

Response: We decided to retain the ''no flow'' provision in the final rule. This provision is consistent with 40 CFR part 63, subpart GGG. It was added to subpart GGG to ensure that a source would not incur a ''deviation'' from the operating limits during periods when there are no HAP emissions being routed to the control device. For the same reason, it is applicable to the miscellaneous organic chemical manufacturing source category as well. We also note that periods of no flow are excluded from the operating hours when calculating the 75 percent data availability requirement and, therefore, excluding these data will not result in non-compliance with the data availability requirements.

L. Recordkeeping and Reporting

Comment: Several commenters suggested moving the necessary recordkeeping elements from the definition of ''operating scenario'' to a new paragraph in the recordkeeping section (§ 63.2525). In addition, the commenters recommended excluding the following requirements from both the definition and the new recordkeeping section: a description of emission episode durations and a listing of vent-by-vent control levels for every operating scenario. Several commenters also expressed concern with the provision that a change in any of the elements of the definition constitutes a new operating scenario. They considered this provision burdensome because variations in some of the listed information (*e.g.*, a change in calculation and engineering analyses) can be construed as requiring separate operating scenarios even if the variation does not change the applicable requirements. One commenter stated that the manufacture of a new product in existing nondedicated equipment should not trigger a new operating scenario unless the compliance approach is different for the new product than it is for existing products. Furthermore, the commenter stated that reconfiguring equipment in a process or across processes should not in and of itself trigger a new operating scenario, unless it triggers new applicable requirements.

Response: After considering these suggestions, we decided to move the recordkeeping elements from the proposed definition to § 63.2525 of the final rule, but we did not change the recordkeeping elements themselves. We did not exclude the emission episode durations from the list of recordkeeping elements because this is an essential element in the calculation of emissions for events such as a purge or a vacuum operation. Note that if duration is not used in the calculation for a particular emission event or is not necessary in the compliance demonstration, there is no need to include it in the operating scenario. We did not exclude the requirement to specify vent-by-vent control levels because this information is important when batch process vents within a process are controlled to different levels. Also, because continuous process vents are regulated individually, it is important to identify the actual control level for each vent. If all vents are controlled to the same level, then a simple statement indicating the control level is all that is needed for the operating scenario.

We also clarify in § 63.2525 that records are required of only those elements that are applicable (*i.e.*, the level of detail required for some compliance options will be greater than for others). For example, for compliance with the 20 ppmv outlet concentration standard when worst-case conditions are defined by the conveyance system limitations rather than by the process, it is not necessary to provide emission calculations for vents that are routed to the control device.

Comment: One commenter recommended deleting the requirement to submit as part of the compliance report each new operating scenario operated during the reporting period. Several other commenters asked that we revise the language to specifically require only a listing of the new operating scenarios in the compliance reports. According to one commenter, operating scenarios duplicate title V requirements, which is unnecessary and confusing. Another commenter stated that the requirement to submit each new operating scenario could result in the generation of a significant quantity of information, especially for batch processors who have the potential for hundreds of different operating scenarios. One commenter stated that the requirement to submit operating scenarios as part of the compliance report when there are deviations is unwarranted. According to the commenter, while listing the scenarios under which a source was operating during noncompliance events may be necessary, listing all of the scenarios under which a process unit might be operating is excessive and unnecessary.

Response: The final rule clarifies requirements for documenting and reporting operating scenarios. Our position is that submitting operating scenarios is critical to enforcement of the final rule, as they provide much of the information required to demonstrate compliance. Information in operating scenarios also is the cornerstone of the management of change strategy that was developed to address the constantly changing processing environment associated with batch processors. Although this management of change flexibility is optional at the discretion of the regulatory authority, 40 CFR part 63, subpart FFFF, provides the framework for implementing the strategy. Therefore, the final rule retains the requirement that complete operating scenarios must be submitted.

However, we have written the final rule to clarify that only one copy of any operating scenario must be submitted. Specifically, we wrote the final rule to require that the actual operating scenarios for planned processes, rather than just a list of operating scenarios, must be submitted in the NOCS report. Any operating scenarios in the future for new processes must be submitted in the compliance report for the reporting period in which the operating scenario is first operated. The notification of process change, which for the final rule is included as part of the compliance report, must contain revised operating scenarios for changes to existing processes. We also eliminated the statement in the provisions for notification of process changes that specifies ''a process change means the startup of a new process'' because it is inconsistent with the above mentioned clarifications. Finally, we deleted the requirement to submit operating scenarios with other information about deviations in the compliance report because the operating log, by definition, is a listing of the scheduled operating scenarios, and a copy of the operating scenarios themselves would already have been submitted either as part of the NOCS report or in a previous compliance report.

Comment: According to the proposed definition, one type of deviation is any instance in which an affected source fails to meet any term or condition that is adopted to implement an applicable requirement in 40 CFR part 63, subpart FFFF, and that is included in the operating permit for any affected source required to obtain such a permit. One commenter recommended deleting this language from the definition because it appears to extend the definition to requirements imposed under title V, rather than subpart FFFF. For example, the commenter suggested that if a permitting authority imposes a throughput requirement on a storage tank subject to subpart FFFF or a NO_X limit on a control device used to comply with subpart FFFF, this language could be read to make any deviation of those limits reportable and a potential violation under subpart FFFF, as well as under title V.

Response: We have not deleted the cited language because we disagree with the commenter's interpretation that it extends deviations to requirements under title V. Paragraph (2) of the proposed definition of ''deviation'' is an important clarification. Sources are obligated under title V and 40 CFR part 70 to report as deviations any failure to meet ''any term or condition that is adopted to implement an applicable requirement in [subpart FFFF] and that is included in the operating permit for any affected source required to obtain such a permit.'' As such, the paragraph does not add any additional obligations. However, it does clarify for source owners and operators reviewing subpart FFFF that this is their obligation for deviation reporting under title V.

Comment: Four commenters recommended using different terms or significantly changing the definition of deviation. Two commenters recommended replacing the term ''deviation'' with the term ''excursion'' throughout the rule to avoid confusion that could be caused because the proposed definition of deviation differs from the meaning normally ascribed to the term in the title V program. One commenter suggested using ''excursion'' to apply to situations where the monitored parameter is outside of the required range, and using the term ''deviation'' to represent an actual demonstrated excess emissions event or nonconformance with a published standard in the rule.

Response: We have not changed the terminology. According to the definition, a deviation includes any instance in which an owner or operator fails to meet any requirement or obligation established by 40 CFR part 63, subpart FFFF, including but not limited to any emission limit, operating limit, or work practice standard. An ''excursion,'' as defined in 40 CFR part 63, subparts G and SS, is a failure to meet an operating limit. Therefore, excursions are a deviation under subpart FFFF.

Comment: One commenter asserted that the attempt to extend deviation reporting to work practices in § 63.2520(d)(5) and (e) of the proposed rule is unclear, arbitrary, and capricious. The commenter stated that each work practice standard itself identifies what has to be reported in the compliance report. According to the commenter, adding a new, undefined requirement to report ''deviations from the requirements for work practice standards in Table 19'' just adds confusion and appears to add a new arbitrary class of deviation that is not supported in any rulemaking record. In addition, the commenter was unsure how we expect facilities to measure deviations from some of the work practices (*e.g.*, fugitive monitoring) listed in Table 19. Therefore, the commenter recommended that we remove the requirement for deviation reporting for work practice standards from § 63.2520(d)(5)(i) and (ii), including the list of information items in § 63.2520(d)(5)(ii)(A) through (C) (operating time, deviations, and operating logs/scenarios). The commenter also recommended deleting the phrase ''or work practice standard'' from § 63.2520(e). This commenter stated that § 63.2520(d)(5)(ii)(B) and (iii)(D) and the availability of more detailed records are all that are needed to identify deviations.

Response: A deviation is defined, in part, as ''any instance in which an affected source fails to meet any requirement or obligation established by this subpart, including * * * any * * * work practice standard.'' Specifically, a source must report ''any instance'' where it has not complied with any work practice standard. For instance, compliance with the work practice standard for equipment leaks includes monitoring and inspecting on the applicable schedule, monitoring for the correct leak definition, repairing leaks within the specified timeframe, and keeping records, as well as reporting the information specified in § 63.1018(a) of 40 CFR part 63, subpart TT, or § 63.1039(b) of 40 CFR part 63, subpart UU. We would also find this information useful in assessing compliance with the work practice standards. If a source failed to repair a leak within the specified timeframe, it would be required to report that as a deviation. However, we have decided that submitting operating logs is unnecessary for deviations from the work practice standard for equipment leaks.

Comment: One commenter requested clarification of the time period when deviations can occur. According to the commenter, it is not possible to have a deviation until operating limits and continuous monitoring system (CMS) parameters have been established. The commenter noted that, as provided in the General Provisions, compliance with these limits begins with the submission of the NOCS report.

Response: We disagree with the commenter's conclusion. Section 112(i)(3) of the CAA statutorily forbids allowing more than 3 years from the effective date of the standards to achieve compliance. Therefore, at any time after the compliance date, a source may be found out of compliance, even if that is before the NOCS report is due or the date that performance tests are conducted.

Comment: Two commenters recommended deleting the requirement to submit operating logs as part of the compliance report when there are deviations. According to the commenters, this requirement is unclear, in part because it does not define ''operating logs,'' which could be

broadly interpreted and will mean different things to different people; it will not benefit EPA in compliance reviews because operating logs do not contain information relevant to a noncompliance event, and they may not reflect the actual cause of the event; and it is burdensome. As an example of the potential burden, one commenter noted that, for a source monitoring 50,000 components monthly for 6 months, a deviation from the equipment leak work practice standard would require a submittal of 4,500 pages of operating logs (based on 300,000 component readings at 66 lines per page).

Response: The operating log, which is a record required by § 63.2525(c) of the final rule, is simply a schedule or list of the operating scenarios that have been run. We clarified this requirement in the final rule by stating it is to be ''updated each time a different operating scenario is put into operation.'' The reporting requirement in § 63.2520(e)(5)(iii)(K) of the final rule has also been written to clarify that the operating log is only required for days during which deviations occurred. Furthermore, since deviations of the work practice standard for equipment leaks are unlikely to be associated with a single operating day, the final rule specifies that logs do not have to be submitted for such deviations.

Comment: Two commenters recommended deleting the precompliance report. One of the commenters noted that a precompliance report is not required by the HON. According to the second commenter, the precompliance report duplicates the review and approval process of title V and the content of the NOCS report and greatly reduces available compliance time. The commenter also argued that the precompliance report is unworkable because it requires data that can only be obtained from the performance test and from operating experience.

Response: We contend that the precompliance report is a valuable tool for the regulatory agency responsible for making compliance determinations for the affected source. Its purpose differs significantly from the compliance plan that is part of the title V requirements. It provides an enforcement official or inspector with some initial background information about the process being controlled, the types of emissions associated with the process, corresponding control equipment, and the monitoring parameters that have been or will be correlated to the process conditions.

A precompliance report is not required for all facilities. The main purpose of the precompliance report is that it is the mechanism by which an affected source requests approval to use alternative monitoring parameters, alternative techniques allowed in the final rule (*e.g.*, pollution prevention), and calculations or other compliance procedures that differ from those prescribed in the final rule. In return for this flexibility, it is important that alternative procedures be approved before the compliance date to ensure that there is no noncompliance resulting from selection of an unacceptable approach. Furthermore, many of the alternative techniques in the final rule are more complicated than standard requirements like those in the HON. Therefore, we have retained the precompliance report in the final rule.

Comment: Two commenters claimed that much of the information required to be submitted in the NOCS report is already required by the referenced subparts or the General Provisions, and the additional information that must be submitted under the proposed rule is excessive.

Response: In general, the final rule references the notification requirements in the applicable subparts (*i.e.*, 40 CFR part 63, subparts G, SS, and GGG) and specifies only the necessary exceptions and additional requirements. However, the overall requirements are the same as the proposal. We generally disagree with the commenter regarding the request to delete requirements beyond those in the referenced subparts. For example, requirements to identify operating scenarios are applicable to continuous operations. Because the operating scenario need only be as detailed as necessary to demonstrate compliance with the final rule, the operating scenario for a continuous operation may not require as much information as one for batch operations. If, for example, a continuous operation has only continuous process vents and storage tanks, no calculation of uncontrolled or controlled emissions is necessary to satisfy the requirement of § 63.2525(b)(7) of the final rule; instead, calculations and engineering analyses consist of TRE calculations for the continuous vents. We note that for every element of the operating scenario described in § 63.2525(b), information is required that is necessary to document how the source is complying with 40 CFR part 63, subpart FFFF. However, we have also made some changes and clarifications to the NOCS requirements. For example, for operating limits, only the resulting values are to be reported, and the procedure used to establish them is supporting documentation that is maintained as a record. For applicability, only the results of applicability determinations have to be submitted. Supporting documentation is maintained as a record under § 63.2525(a)(1).

Comment: Several commenters requested the following changes in the compliance reporting schedule and due dates: (1) Clarify when the first report is due because the proposed language appears to be internally inconsistent, (2) change the beginning date of the first reporting period to the date the notification of compliance status is due rather than the compliance date, and (3) allow 60 days rather than 30 days to prepare the report after the end of the reporting period.

Response: The final rule clarifies our intent that the first reporting period is to span a period between 6 and 12 months. To be consistent with other rules, we also decided to provide 60 days to prepare the compliance reports. Although we have decided to make the notification of compliance status due 150 days after the compliance date rather than by the compliance date, the reporting period for the first compliance report is unchanged in the final rule because sources must be operating monitoring equipment and conducting other ongoing compliance activities beginning on the compliance date.

Comment: Two commenters were concerned that some of the data that must be submitted in the precompliance report are CBI and should not be required. Commenters also are concerned that some of the requested information for operating scenarios is CBI.

Response: We recognize that certain information needed to complete the precompliance report and operating scenarios in the NOCS report may be confidential. Precompliance and NOCS reports are considered to be submitted to the Administrator under CAA section 114 even if they are submitted to a State or local agency acting on the Administrator's behalf (40 CFR 2.301(b)(2)) and, as such, are entitled to protection under section 114(c) of the CAA or 40 CFR 2.201–2.311, provided they meet the criteria set forth in the statute and regulations. If you claim that any portion of these reports is entitled to such protection, the material that is claimed as confidential must be clearly designated in the submission.

Comment: Several commenters objected to the notification of process change requirements in § 63.2515(f) of the proposed rule. One commenter stated that the requirement to report any process change, change in operating scenarios, or change in information submitted in the NOCS report would be impossibly burdensome for complex

specialty batch processing systems, and it would offer no environmental benefit. According to the commenter, frequent, even daily, changes are normal and necessary requirements of such facilities. The commenter stated that facilities should only be required to report changes that result in non-conformance with emission limits or control efficiency requirements, or that cause a process to exceed the 10,000 lb/yr uncontrolled HAP threshold, thereby triggering compliance requirements under subpart FFFF.

Other commenters stated that the proposed notification of process change requirement is too expansive, imposing a reporting burden which totally duplicates title V change requirements. One of these commenters stated that there is no need to submit reports for a process change unless the process change brings about new applicable requirements. According to the commenter, an example of a situation where there would be no need to report is the startup of a new process in an existing MCPU for a new product, or family of products, which emits no HAP; or requires no new or different controls, work practices, or monitoring; and brings about no new applicable requirements. Both commenters noted that any process change that generates a new or modified applicable requirement may be anticipated by the facility and would be reported and/or incorporated in the title V permit. Therefore, according to the two commenters, providing 60-day prior notifications of process changes (*e.g.*, in separate notices or in the semiannual compliance report) would be unnecessary, wasteful, and burdensome. Therefore, the commenters recommended deleting the notification of process change requirement in § 63.2515(f).

Response: We disagree with the commenters. These records are needed to document continuous compliance. As stated before, the level of detail associated with information provided in operating scenarios depends on the compliance options and strategy chosen. For example, we provide concepts like standard batches to account for variability that could be introduced into a process without triggering new applicable requirements. Standard batches mean a range of operating conditions can be covered as part of a single operating scenario. Likewise, demonstrating initial compliance under worst-case conditions means information in the notification of compliance status should rarely change. Therefore, we do not agree that the requirements to report process changes are unnecessarily burdensome.

M. Startup, Shutdown, and Malfunction

Comment: Several commenters requested changes to the definition of ''startup.'' Their primary concern is the statement that excludes the first time equipment is put into operation after a shutdown for maintenance and at the start of a campaign to produce a product that has been produced in the past. One commenter stated that actions to bring a batch campaign online, regardless of whether previous campaigns of that product have been run in the past, to be completely different and more complex than the routine activities conducted between batches within a campaign, and these operations are not always predictable. Another commenter indicated startups should apply after shutdowns for maintenance to avoid safety and environmental issues associated with trying to run controls with air and/or inerts in the system. Finally, one commenter claimed the exclusions are illegal because we did not collect information for periods of SSM.

Several commenters also opposed the exclusions from the definition of ''shutdown'' for the cessation of a batch process at both the end of a campaign and for routine maintenance. According to one commenter, shutting down a process unit after a campaign involves completely different and more complex procedures than those conducted between batches in a campaign; these operations are not always predictable, and there is no difference between shutting down between campaigns and a maintenance shutdown of a continuous process after a production run.

Response: We have considered similar comments on previous rulemakings involving batch processors. Commenters in the past suggested that operating practices for controls used with batch processes are the same as those for controls used with continuous processes and argued for similar provisions. Our response was to provide a definition of startup and shutdown that would consider situations when operators would be unfamiliar with the equipment operation or it might not be possible to follow standard operating procedures. However, we thought that a startup after maintenance, after switching to a product that has been produced in the past, or the startups between batches during a campaign are all routine, normal operating conditions that should result in the same standard batch. Similarly, we considered shutdown at the end of a campaign, between batches, or for planned, preventative maintenance to be normal operations and resulting in the same standard batch. Our rationale for providing separate requirements for continuous processes was that a startup or shutdown for any reason results in operation under conditions different from the normal steady-state operation, which is not the case for batch operations.

We accept the commenters' statement that actions to bring a batch campaign on-line, regardless of whether previous campaigns of that product have been run, or after a shutdown for maintenance, could be completely different and more complex than the routine activities conducted between batches within a campaign. This could also be the case, as commenters argue, after cessation of operation for various reasons. Therefore, we are persuaded that when these operations are outside of operations covered by a standard batch (or a nonstandard batch, as described below), that they should be covered by the SSM provisions.

Related to this issue is our concept of nonstandard batch, which describes a situation where operations are conducted outside the range of conditions established by a standard batch or where steps are repeated or deleted that contribute to emissions from the batch and, therefore, must be considered in determining compliance. For example, if QA/QC metrics are not met at a certain step of a process, and a material must be recrystallized or purified to a greater degree than originally prescribed by the standard operating procedure, extended processing steps must be considered. In these instances, owners and operators are required to calculate emissions from the nonstandard batch and verify compliance with the standards. These instances would not be considered part of the SSM provisions because they can be reasonably anticipated. As a result, we have defined the term ''nonstandard batch'' in the final rule to describe situations that are not standard batches, but also are not malfunctions.

Comment: One commenter asserted that SSM provisions in proposed § 63.2490 are unlawful. According to the commenter, allowing sources to avoid enforcement actions merely by demonstrating that they were in compliance with their own SSM plans necessarily allows them to operate in less than continuous compliance even if their deviations were avoidable. The commenter indicated that the CAA makes it clear that sources must be in compliance with emissions standards continuously, except for unavoidable deviations during SSM.

Response: We recently adopted final amendments to the General Provisions which address the concerns raised by the commenter (68 FR 32586, May 30, 2003). The final amendments clarify that § 63.6(e)(1)(i) establishes a general duty to minimize emissions. During a period of SSM, that general duty requires an owner or operator to reduce emissions to the greatest extent consistent with safety and good air pollution control practices. However, ''during an SSM event, the general duty to minimize emissions does not require an owner or operator to achieve the levels required by the applicable MACT standard at other times, or to make further efforts to reduce emissions if such levels have been successfully achieved.'' As discussed in the preamble to the final amendments, we disagree with the commenter's legal position that sources' compliance with SSMP requirements in lieu of applicable emission standards is permissible only where violations of emission limitations are ''unavoidable.'' As stated in the preamble to the final amendments to the General Provisions, ''[w]e believe that we have discretion to make reasonable distinctions concerning those particular activities to which the emission limitations in a MACT standard apply * * * However, we note that the general duty to minimize emissions is intended to be a legally enforceable duty which applies when the emission limitations in a MACT standard do not apply, thereby limiting exceedances of generally applicable emission limitations to those instances where they cannot be reasonably avoided.'' (68 FR 32590, May 30, 2003). We further explained that the general duty to minimize emissions requires that owners or operators review their SSMP on an ongoing basis and make appropriate improvements to ensure that excess emissions are avoided.

Comment: Several commenters disagreed with a number of the proposed SSM requirements. They indicated that monitored parameter values during periods of SSM should not be included in daily averages, and that to do so distorts the results for periods of normal operation and is inconsistent with the General Provisions and previous rules. Commenters also stated that it is not possible to have a deviation from the emission limit or work practice standard during SSM periods because the only requirement during such periods is to comply with the SSMP. Therefore, the commenters stated that the definition of ''deviation'' is inconsistent with the General Provisions and should be changed to delete the statement that conflicts with this point, and there should be no requirement to document deviations during SSM periods in the compliance reports. According to the commenters, records of every SSM event, as required by the General Provisions, are unnecessary and wasteful. The commenters recommended replacing this provision, like in many other rules, with a requirement to keep records only of events during which excess emissions occur. Finally, commenters recommended deleting the requirement to submit an immediate SSM report each time actions taken differ from the SSMP.

Response: We disagree with the comment that the definition of deviation is inconsistent with the General Provisions. As recently amended, 40 CFR 63.6(e)(1)(i) requires operation at all times (including periods of SSM) in a manner consistent with safety and good air pollution control practices for minimizing emissions. The General Provisions state that the general duty to minimize emissions during a period of SSM does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, thus allowing for compliance with the SSMP in the event that the standard cannot otherwise be met. However, we further clarified in the recent amendments that a source will not be considered to have satisfied the duty to minimize emissions merely because it complied with an inadequate SSMP. Furthermore, the General Provisions do not say there cannot be a deviation during periods of SSM. They only state (in § 63.7(e)(1)) that emissions in excess of the level of the relevant standard during periods of SSM shall not be considered a violation of the relevant standard, unless a determination of noncompliance is made under § 63.6(e). As discussed in response to the previous comment, recent final amendments to the General Provisions changed § 63.6(e) to clarify a source's compliance obligations during SSM events. As noted previously, the final rule references most of the requirements in 40 CFR part 63, subpart SS. For calculating daily averages, subpart SS specifies that monitoring data collected during periods of SSM are to be excluded. However, we excluded this provision from 40 CFR part 63, subpart FFFF. If data from SSM events are excluded from the daily (or block) average, then we would not have sufficient information to assess whether a deviation has occurred for a day containing a reported SSM event that we subsequently determine is not properly an SSM event.

Another requirement in subpart SS is that records of SSM events (*i.e.*, confirmation that actions taken were consistent with the SSMP or a description of any inconsistent actions) must be maintained only if excess emissions occur. For the final subpart FFFF, we decided that this requirement, rather than records of every SSM event as specified in the General Provisions, provides sufficient information about SSM events (note that it applies for all SSM periods, not just those subject to subpart SS), which means determination of excess emissions is critical. The final rule defines excess emissions as ''emissions greater than those allowed by the emission limit.'' When a CMS is used to demonstrate compliance with an operating limit, this means excess emissions occur when the operating limit is not met. As noted above, compliance with an operating limit is based on a daily or block average, not an average over shorter periods such as a period of SSM. Thus, SSM records are required for each SSM event that occurs when you have a deviation of the operating limit for the day or block.

We disagree with the commenter's contention that sources should not be required to report deviations that occur during SSM events. Reporting of deviations from emission limits, operating limits, and work practice standards that occur during SSM events is necessary because events claimed to be SSM events by the source may not be viewed as approved SSM events by EPA. Furthermore, § 63.998(c)(1)(ii)(E) and (d)(3) of subpart SS already require records of each SSM event during which excess emissions occur, and as such the additional requirement to report such records is not unduly burdensome.

We agree that immediate notifications are not necessary. The industries covered by this source category generally have extensive upset/SSM reporting requirements under the Comprehensive Environmental Response, Compensation, and Liability Act and state reporting requirements that should be adequate in supplying timely notification of events. Further, the final rule requires information regarding actions inconsistent with the SSMP to be submitted in semiannual compliance reports. For these reasons, and to maintain consistency with the HON and the CAR rules, we have overridden the immediate SSM reporting required by §§ 63.6(e)(3)(iv) and 63.10(d)(5)(ii) of the General Provisions.

N. Change Management

Comment: Regarding EPA's solicitation of comments concerning process change management, one commenter suggested relying on the title V constructions for process change management whenever possible. According to the commenter, adding change management provisions to the rule (beyond requiring facilities that change the underlying potential to emit assumptions to comply with the construction and/or operating permit requirements of their permitting authority) could only be justified when a campaign is introduced that changes the underlying evaluation of the worst case for a specific production unit. Otherwise, the commenter argued, any additional change management requirements would just increase the compliance burden on already overworked permitting authorities.

The commenter specifically requested that § 63.2515(f) be modified to exempt from separate reporting any process change that is managed according to regulations and procedures required by a permitting authority under an approved title V program. The commenter requested that facilities that process such a change request through the title V program or incorporate the change into a title V permit should only have to designate in that filing how the change impacts the 40 CFR part 63, subpart FFFF, compliance program at the facility. According to the commenter, this change would significantly decrease the burden on permitting authorities and facilities by requiring the permitting authorities to manage the same issue only once.

Regarding the solicitation of comments about change management being required for facilities complying with the alternate standard, the commenter stated that, for any facility restricting control device emissions to a documented 20 ppmv, the activities occurring before the control device are not able to significantly change the emissions profile to the environment as long as the maximum air flow through the control device does not change.

Response: Our intent in requiring operating scenarios, testing under worst-case conditions, and specification of conditions under which process changes are reported is to provide a framework for managing changes that may be frequent because of the nature of batch specialty chemical processing operations without introducing additional burden on permitting authorities and facilities. We intend, for example, that the standard batch and overall operating scenario cover the anticipated range of conditions of a process; only in cases where a change is made that would fall outside of the standard batch would a new standard batch and operating scenario be required. However, we consider it inappropriate for the final rule to exempt any process change that is managed according to title V, as one commenter requested. For all practical purposes, 40 CFR part 63, subpart FFFF, specifies the information required to determine applicable requirements for the MACT standards that are incorporated into the title V permits. Finally, the final rule is consistent with the commenter's proposed approach to managing change for a process in which a control device is tested under worst-case conditions using limitations of the capture and conveyance system. The operating scenario in this case is simple, and no detailed information on the emission events controlled by the device are necessary. Likewise, if a process change occurred in the process, no new operating scenario is required because the existing operating scenario still applies.

Comment: One commenter made two comments regarding EPA's solicitation of comments on process change management as it relates to title V permits. First, noting that the solicitation of comments specifically referenced the Pharmaceuticals Production MACT, the commenter stated that the consideration under that rule authorizing States to allow facilities to introduce new processes into existing equipment or install stockpiled equipment without reopening title V permits would apply with equal force to 40 CFR part 63, subpart FFFF. The commenter noted that many batch and specialty chemical facilities frequently introduce new processes into existing equipment or install stockpiled equipment. According to the commenter, such facilities need to have the flexibility to respond quickly to the results of their research and development activities and changes in market conditions in a cost-effective manner and without opening a lengthy permitting process. Therefore, the commenter recommended that we provide a discussion of change management for subpart FFFF that is similar to that provided in the preamble to the final Pharmaceuticals Production MACT.

Second, the commenter noted that the Pharmaceuticals Production MACT encouraged States to allow for flexible permitting of facilities and avoid permit revisions where reasonably anticipated alternative operating scenarios can be established in title V permits and supported with detailed operating logs. The commenter also noted that the pharmaceuticals change strategy authorized new process equipment to be brought into service, without permit modification, where it is either like-kind replacement or existing onsite equipment not in current service. According to the commenter, the miscellaneous organic chemical manufacturing source category would involve the same industry contacts and supporting rationales that we cited in the Pharmaceuticals Production NESHAP. Therefore, the commenter recommended that we include similar provisions in subpart FFFF.

Response: As the commenter noted, the preamble to the final Pharmaceuticals Production NESHAP (63 FR 50309, September 21, 1998) provided a detailed discussion of change management procedures as applied to pharmaceuticals production. We have decided not to include a similar discussion here. Sources subject to 40 CFR part 63, subpart FFFF, may discuss their interest in change management procedures with EPA or the appropriate permitting authority on an individual basis.

O. Overlapping Requirements

Comment: Several commenters requested that the rule include language to address potential overlap between 40 CFR part 63, subpart FFFF, and various 40 CFR part 60 and part 61 rules. Each commenter was concerned with a different group of rules, but collectively they include subparts K, Ka, Kb, VV, DDD, III, NNN, and RRR in part 60 and subparts V, Y, BB, and FF in part 61. Typically, the commenters requested language consistent with language in other rules such as the HON, or language specifying that compliance with subpart FFFF constitutes compliance with an overlapping rule. For vents in an MCPU that contain no HAP but are subject to control under 40 CFR part 60, subparts DDD, III, NNN, and RRR, one commenter requested a provision that would allow facilities to opt to meet the continuous process vent requirements of subpart FFFF in lieu of continuing to comply with the NSPS requirements.

Response: We agree that there is a need to address potential overlap between subpart FFFF and various part 60 and part 61 rules, and we have written the final rule accordingly. In general, the language is consistent with language in previous rules. For example, the final rule includes language consistent with § 63.110(e)(1) for overlap with subpart FF of part 61. To address overlap with subpart BB of part

61, we included language consistent with language in § 63.110(c) of the HON. We also included language for overlap with subpart DDD of part 60 that is similar to the proposed language for subparts III, NNN, and RRR. In addition, for an MCPU with process vents that contain no HAP, but are subject to control requirements under subpart DDD, III, NNN, or RRR, the final rule also includes the suggestion to allow compliance with the control requirements in subpart FFFF for Group 1 process vents. In each case, the total organic compounds (TOC) must be considered as if they are organic HAP for purposes of compliance with subpart FFFF. For storage tanks subject to both subpart FFFF and 40 CFR part 60, subpart Kb, we decided to keep the proposed language and add another option. The new option in the final rule specifies that if control is required under subpart Kb and the tank is assigned to an MCPU, then compliance with the requirements for Group 1 storage tanks under subpart FFFF constitutes compliance with subpart Kb. Since the compliance requirements of 40 CFR part 61, subpart Y, are similar to the requirements in subpart Kb, we have decided to address overlap with subpart Y of part 61 by including language in the final rule that is consistent with the language used to address overlap with subpart Kb. We have not included language to address overlap with subparts K and Ka of part 60 because these rules apply to tanks storing petroleum liquids, which are not included in the miscellaneous organic chemical manufacturing source category. Finally, the final rule specifies that compliance with subpart FFFF constitutes compliance with subpart V in part 61 and subpart VV in part 60; alternatively, if you have an affected source with equipment subject to subpart V in part 61 or subpart VV in part 60, you may elect to comply solely with either subpart FFFF or the other applicable rule.

Comment: Commenters stated that the proposed applicability provisions and definitions do not go far enough to prevent multipurpose equipment from being subject to more than one MACT standard. Commenters suggested exempting all operations subject to another part 63 rule; designating subpart FFFF as the single applicable rule, or allowing facilities to pick any one of the applicable MACT rules; and using ''primary product'' and process unit group (PUG) concepts for clarifying applicability.

Response: We recognize that 40 CFR part 63, subpart FFFF, will affect manufacturers of specialty chemicals and other products whose multipurpose production processes are subject to other MACT standards, creating situations where there are overlapping requirements. The challenge is how to consolidate overlapping requirements and still maintain the MACT reductions anticipated from each of the various standards. Many MACT standards that regulate specialty chemicals, pesticide active ingredients (PAI), SOCMI, and polymers and resins have specific language relating to overlap. The predominant method of addressing possible overlap is by designating a primary product and requiring compliance with the final rule that applies to the primary product at all times when the flexible process unit is operating. The presumption is that the equipment should be regulated according to the standard that effectively applies for a majority of products produced.

After considering the provisions in previous rules, we decided to include in the final rule a provision that is essentially the same as in the PAI rule. This provision is based on developing a PUG from a collection of multipurpose equipment, determining the primary product for the PUG, and, generally, complying with the rule that applies to the primary product for all process units within the PUG. If the primary product is determined to be miscellaneous organic chemical manufacturing materials, then you must comply with subpart FFFF for all process units in the PUG. If the primary product is determined to be pharmaceutical products or PAI, then you must comply with 40 CFR part 63, subpart GGG or subpart MMM, respectively, for all MCPU in the PUG. Although we consider it unlikely, it is possible that the primary product of a PUG, as determined according to the procedures in subpart FFFF, could be material subject to another MACT rule such as 40 CFR part 63, subpart JJJ, even though it was not determined to be the primary product according to the procedures in subpart JJJ (*i.e.*, the PUG is a flexible operation unit under subpart JJJ). In this case, subpart FFFF only requires compliance with subpart FFFF for the MCPU in the PUG.

The PUG concept also overrides certain applicability provisions in other overlapping standards. For example, if the primary product of a PUG that is also a flexible operation unit for the purposes of subpart JJJ is determined to be an miscellaneous organic chemical manufacturing product, then the redetermination procedures for nonaffected units in subpart JJJ no longer apply. Another example is that subpart GGG no longer applies to pharmaceutical process units in a PUG for which the primary product is determined to be miscellaneous organic chemical manufacturing material. Similarly, if the primary product of a PUG is miscellaneous organic chemical manufacturing material, then any PAI process units in the PUG that previously were required to comply with subpart MMM now must comply with subpart FFFF.

A slight difference exists between the PUG language in the PAI rule and this current PUG language. In the PAI rule, each process unit in the PUG must have some processing equipment that overlaps with at least one other PAI process unit in the group. For subpart FFFF, this restriction has been revised to require only that each process unit must have processing equipment that overlaps with any other process unit (of any kind) in the group. This language allows greater flexibility in setting the boundaries of the PUG and potentially increases the number of operations considered as part of a PUG, extending the potential for consolidation of overlapping requirements and enabling all the operations considered part of a flexible unit operation in earlier MACT standards to fall into the same PUG. Since the change also creates the possibility that PUG developed under subparts MMM and FFFF would not be identical, subpart FFFF specifies that an owner or operator may use a PUG developed under subpart MMM rather than developing a PUG under subpart FFFF.

Comment: One commenter stated that the final rule should specify a date in the future where the MACT standard for a particular equipment configuration is ''set'' to avoid having to redetermine applicability as processes and equipment change.

Response: Previous part 63 rules require a prospective review of the 5 year period from the compliance date to predict the primary product and, with the exception of the HON, a subsequent periodic redetermination ranging from every year to every 5 years, or upon permanent cessation of the primary product production. We recognize that redetermination is a burden in that it may require changing control strategies to comply with a different rule if the primary product changes. To minimize any burden associated with such changes, the final rule requires a redetermination only if the PUG stops manufacturing the primary product. As with the initial determination, the redetermination is based on a 5-year projection of production. After redetermination, the PUG becomes

subject to whatever rule applies to the new primary product. In the absence of earlier declarations that production of the primary product has ceased, not making the primary product for a period of 5 years will be considered evidence that manufacturing of the primary product has ceased.

Comment: Several commenters requested that we make sure there is no overlap between the OLD MACT and 40 CFR part 63, subpart FFFF. Several commenters also asked for clarification of how to comply when there is overlap between subparts FFFF and HHHHH.

Response: The preamble to the proposed OLD rule stated our intent that all of the distribution sources at miscellaneous organic chemical manufacturing affected sources would be subject only to subpart FFFF, not the OLD rule. The proposed OLD rule also states that those emission sources that are controlled under the provisions of another 40 CFR part 63 NESHAP would not be part of the OLD affected source. Our position on this issue has not changed, and we expect to use the same language in the final OLD rule. Thus, subpart FFFF does not need to address overlap between the OLD rule and subpart FFFF because there will be no overlap.

The final rule handles overlapping requirements between subparts FFFF and HHHHH the same as described above for overlap between subpart FFFF and other part 63 rules. In addition, we have made changes to the definition of miscellaneous organic chemical manufacturing process and to the affected source that are designed to clarify which equipment is subject to subpart FFFF and which is subject to subpart HHHHH.

Comment: Two commenters requested that the final rule allow consolidation of all equipment leak LDAR programs under 40 CFR part 63, subpart FFFF, or any other single program. One of the commenters noted that many facilities are complying with a number of different programs that are effectively equivalent in terms of environmental protection, and consolidation will reduce confusion and eliminate significant enforcement effort by EPA and States in determining which LDAR program applies to which portion of a facility.

Response: The final rule allows for considerable consolidation of LDAR programs and specifies that compliance with subpart FFFF constitutes compliance with 40 CFR part 60, subpart VV, and 40 CFR part 61, subpart V. Furthermore, § 63.2535(d) of the final rule specifies that an owner or operator with an affected source under subpart FFFF and equipment subject to either 40 CFR part 63, subpart GGG or MMM, may elect to comply with subpart GGG or MMM, respectively, for all such equipment. The final rule also allows an owner or operator to elect to comply with the LDAR requirements in 40 CFR part 65, subpart F (*i.e.*, the CAR).

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the 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 a ''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 entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

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

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers this a ''significant regulatory action'' within the meaning of the Executive Order. The EPA has submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information requirements are not enforceable until OMB approves them. The ICR number is 1969.02.

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 NESHAP. These recordkeeping and reporting requirements are specifically authorized by section 112 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies in 40 CFR part 2, subpart B.

The final NESHAP require maintenance inspections of the control devices but do not require any notifications or reports beyond those required by the NESHAP General Provisions (40 CFR part 63, subpart A). The recordkeeping requirements collect only the specific information needed to determine compliance.

The annual public reporting and recordkeeping burden for this collection of information (averaged over the first 3 years after the effective date of the final rule) is estimated to total 71 labor hours per year at a total annual cost of $3,150 for 251 respondents. These estimates include one-time submissions of notifications and precompliance reports, preparation of an SSMP 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 per year. Average operation and maintenance costs associated with the monitoring requirements for the 3-year period are estimated at $92,000 per year.

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 purpose of collecting, validating, and verifying information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel 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 number for EPA's regulations in 40 CFR are in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the

approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impact of the rule 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; or (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field. The maximum number of employees to be considered a small business for each NAICS code is shown in the preamble to the proposed rule (67 FR 16178).

After considering the economic impacts of the final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. Our economic analysis 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 its sales. In addition, there are three small firms with cost-to-sales ratios between 1 percent and 3 percent.

An economic impact analysis was performed to estimate the changes in product price and production quantities for the firms affected by 40 CFR part 63, 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 miscellaneous organic chemical manufacturing 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 that 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.

Although the miscellaneous organic chemical manufacturing 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 rule on small entities. We have worked closely with the American Chemical Council and the Synthetic Organic Chemical Manufacturers Association. These trade organizations, which represent the majority of facilities covered by subpart FFFF, have represented their members at stakeholder meetings throughout the standards development process. We also 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 and 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 40 CFR part 70 requirements to minimize title V permit modifications for owners and operators that make frequent changes to their processes.

D. Unfunded Mandates Reform Act

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 final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual costs of the final rule for any year is estimated to be about $75 million. Thus, the final rule is not subject to the requirements of sections 202 and 205 of the UMRA.

In addition, the 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, the final rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

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

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and

responsibilities among the various levels of government, as specified in Executive Order 13132. None of the sources are owned or operated by State or local governments. Thus, Executive Order 13132 does not apply to the final rule.

F. 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 9, 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.'' The final rule does not have tribal implications. It 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. No tribal governments own or operate miscellaneous organic chemical manufacturing process units. Thus, Executive Order 13175 does not apply to the final rule.

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

Executive Order 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 1985, 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 considered by the Agency.

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. The final rule is not subject to the Executive Order because it is based on technology performance and not health or safety risks.

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

The final rule is not a ''significant energy action'' as defined in Executive Order 13211, ''Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Approximately 51 million kwh/yr of electricity will be needed to operate refrigeration units, fans, and pumps for control systems. Approximately 680 million lb/yr of steam will be needed to operate steam-assist flares and steam strippers. Approximately 4.3 billion standard cubic feet per year (scf/yr) of natural gas will be needed to operate thermal oxidizers and flares, and about 1.0 billion scf/yr will be needed to generate steam. Generating the electricity will consume about 17,700 tpy of coal.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its 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.

The final rule involves technical standards. The final rule uses EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 15, 18, 25, 25A, 305, 316, 320, 624, 625, 1624, 1625, 1666, 1671, 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 the NESHAP (Docket OAR–2003–0121). 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 for measurement of organic HAP or total organic compounds. Therefore, the standard ASTM D6420–99 is cited in the final rule.

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 OAR–2003–0121) is a suitable alternative to Method 18 only where the target compound(s) are those listed in section 1.1 of ASTM D6420–99; 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. For target

compound(s) not listed in section 1.1 of ASTM D6420–99, and not amenable to detection by mass spectrometry, ASTM D6420–99 does not apply.

As a result, EPA cites ASTM D6420–99 in subpart FFFF of part 63. The EPA also cites Method 18 as a gas chromatography (GC) option in addition to ASTM D6420–99. This will allow the continued use of GC configurations other than GC/MS.

Some EPA testing methods and performance standards are specified in §§ 63.2450(g) and 63.2485(h) of subpart FFFF. Subpart FFFF also references EPA testing methods specified in 40 CFR part 63, subparts G and SS. Most of the standards have been used by States and industry for more than 10 years. Nevertheless, under § 63.7(f), the final rule 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 NESHAP.

J. Congressional Review Act

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

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: August 25, 2003.

Marianne Lamont Horinko,

Acting Administrator.

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

PART 63—[AMENDED]

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

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

■ 2. Part 63 is amended by adding a new subpart FFFF to read as follows:

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

Sec.

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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 limits, operating limits, 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 assigned storage tanks and product transfer racks; 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.

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

(i) An organic chemical or chemicals classified using the 1987 version of SIC code 282, 283, 284, 285, 286, 287, 289, or 386, except as provided in paragraph (c)(5) of this section.

(ii) An organic chemical or chemicals classified using the 1997 version of NAICS code 325, except as provided in paragraph (c)(5) of this section.

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

(iv) Hydrazine.

(v) Organic solvents classified in any of the SIC or NAICS codes listed in paragraph (b)(1)(i) or (ii) of this section that are recovered using nondedicated solvent recovery operations.

(2) The MCPU processes, uses, or produces any of the organic HAP listed in section 112(b) of the CAA or hydrogen halide and halogen HAP, as defined in § 63.2550.

(3) The MCPU is not an affected source or part of an affected source under another subpart of this part 63, except for process vents from batch operations within a chemical manufacturing process unit (CMPU), as identified in § 63.100(j)(4). For this situation, the MCPU is the same as the CMPU as defined in § 63.100, and 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) through (6) of this section.

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

(2) The manufacture of 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 affiliated operations located at an affected source under subparts GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities), KK (National Emission Standards for the Printing and Publishing Industry), JJJJ (NESHAP: Paper and Other Web Coating), future MMMM (NESHAP: Surface Coating of Miscellaneous Metal Parts and Products), and SSSS (NESHAP: Surface Coating of Metal Coil) of this part 63. Affiliated operations include, but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater.

(4) Fabricating operations such as spinning a polymer into its end use.

(5) Production activities described using the 1997 version of NAICS codes 325131, 325181, 325188 (except the requirements do apply to hydrazine), 325314, 325991 (except the requirements do apply to reformulating plastics resins from recycled plastics products), and 325992 (except the requirements do apply to photographic chemicals).

(6) Tall oil recovery systems.

(d) If the predominant use of a transfer rack loading arm or storage tank (including storage tanks in series) is associated with a miscellaneous organic chemical manufacturing process, and the loading arm or storage tank is not part of an affected source under a subpart of this part 63, then you must assign the loading arm or storage tank to the MCPU for that miscellaneous organic chemical manufacturing process. If the predominant use cannot be determined, then you may assign the loading arm or storage tank to any MCPU that shares it and is subject to this subpart. If the use varies from year to year, then you must base the determination on the utilization that occurred during the year preceding November 10, 2003 or, if the loading arm or 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 report specified in § 63.2520(d). You must redetermine the primary use at least once every 5 years, or any time you implement emissions averaging or pollution prevention after the compliance date.

(e) For nondedicated equipment used to create at least one MCPU, you may elect to develop process unit groups (PUG), determine the primary product of each PUG, and comply with the requirements of the subpart in 40 CFR part 63 that applies to that primary product as specified in § 63.2535(l).

§ 63.2440 What parts of my plant does this subpart cover?

(a) This subpart applies to each miscellaneous organic chemical manufacturing affected source.

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

(c) A new affected source is described by either paragraph (c)(1) or (2) of this section.

(1) Each affected source defined in paragraph (b) of this section for which you commenced construction or reconstruction after April 4, 2002, and you meet the applicability criteria at the time you commenced construction or reconstruction.

(2) Each dedicated MCPU that has the potential to emit 10 tons per year (tpy) of any one HAP or 25 tpy of combined HAP, and you commenced construction or reconstruction of the MCPU after April 4, 2002. For the purposes of this paragraph, an MCPU is an affected source in the definition of the term ''reconstruction'' in § 63.2.

(d) 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).

Compliance Dates

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

(a) If you have a new 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 affected source before November 10, 2003, then you must comply with the requirements for new sources in this subpart no later than November 10, 2003.

(2) If you startup your new affected source after November 10, 2003, then you must comply with the requirements for new sources in this subpart upon startup of your affected source.

(b) If you have an existing source on November 10, 2003, you must comply with the requirements for existing sources in this subpart no later than November 10, 2006.

(c) You must meet the notification requirements in § 63.2515 according to the schedule in § 63.2515 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emission limits, operating limits, and work practice standards in this subpart.

Emission Limits, Work Practice Standards, and Compliance Requirements

§ 63.2450 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits and work practice standards in Tables 1 through 7 to this

subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in §§ 63.2455 through 63.2490 (or the alternative means of compliance in § 63.2495, § 63.2500, or § 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in §§ 63.2515, 63.2520, and 63.2525.

(b) *Determine halogenated vent streams.* You must determine if an emission stream is a halogenated vent stream, as defined in § 63.2550, by calculating the mass emission rate of halogen atoms in accordance with § 63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated.

(c) *Requirements for combined emission streams.* When organic HAP emissions from different emission types (*e.g.*, continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, you must comply with the requirements of either paragraph (c)(1) or (2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of organic HAP emissions in the stream (*e.g.*, the requirements of Table 1 to this subpart for continuous process vents and the requirements of Table 4 to this subpart for emissions from storage tanks).

(2) Determine the applicable requirements based on the hierarchy presented in paragraphs (c)(2)(i) through (vi) of this section. For a combined stream, the applicable requirements are specified in the highest-listed paragraph in the hierarchy that applies to any of the individual streams that make up the combined stream. For example, if a combined stream consists of emissions from Group 1 batch process vents and any other type of emission stream, then you must comply with the requirements in paragraph (c)(2)(i) of this section for the combined stream; compliance with the requirements in paragraph (c)(2)(i) of this section constitutes compliance for the other emission streams in the combined stream. Two exceptions are that you must comply with the requirements in Table 3 to this subpart and § 63.2465 for all process vents with hydrogen halide and halogen HAP emissions, and recordkeeping requirements for Group 2 applicability or compliance are still required (*e.g.*, the requirement in § 63.2525(f) to track the number of batches produced and calculate rolling annual emissions for processes with Group 2 batch process vents).

(i) The requirements of Table 2 to this subpart and § 63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting.

(ii) The requirements of Table 1 to this subpart and § 63.2455 for continuous process vents that are routed to a control device, as defined in § 63.981, including applicable monitoring, recordkeeping, and reporting.

(iii) The requirements of Table 5 to this subpart and § 63.2475 for transfer operations, including applicable monitoring, recordkeeping, and reporting.

(iv) The requirements of Table 7 to this subpart and § 63.2485 for emissions from waste management units that are used to manage and treat Group 1 wastewater streams and residuals from Group 1 wastewater streams, including applicable monitoring, recordkeeping, and reporting.

(v) The requirements of Table 4 to this subpart and § 63.2470 for control of emissions from storage tanks, including applicable monitoring, recordkeeping, and reporting.

(vi) The requirements of Table 1 to this subpart and § 63.2455 for continuous process vents after a recovery device including applicable monitoring, recordkeeping, and reporting.

(d) Except when complying with § 63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of § 63.982(c) and the requirements referenced therein.

(e) Except when complying with § 63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of § 63.982(b) and the requirements referenced therein.

(f) If you use a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, you must meet the requirements of § 63.994 and the requirements referenced therein. If you use a halogen reduction device before a combustion device, you must determine the halogen atom emission rate prior to the combustion device according to the procedures in § 63.115(d)(2)(v).

(g) *Requirements for performance tests.* The requirements specified in paragraphs (g)(1) through (5) of this section apply instead of or in addition to the requirements specified in subpart SS of this part 63.

(1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.

(2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.

(3) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, you must conduct emissions testing according to paragraph (g)(3)(i) or (ii) of this section.

(i) If you elect to comply with the percent reduction emission limits in Tables 1 through 7 to this subpart, and carbon disulfide is the principal organic 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 organic HAP emissions.

(ii) If you elect to comply with the outlet total organic compound (TOC) concentration emission limits in Tables 1 through 7 to 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 carbon disulfide emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25A.

(4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in Tables 1 through 7 to this subpart, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.

(5) Section 63.997(c)(1) does not apply. For the purposes of this subpart, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in § 63.2520(d)(1).

(h) *Design evaluation.* To determine the percent reduction of a small control device, you may elect to conduct a design evaluation as specified in § 63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s)

and basis for the operating limits as part of the design evaluation.

(i) *Outlet concentration correction for supplemental gases.* In § 63.997(e)(2)(iii)(C), the correction to 3 percent oxygen for emission streams at the outlet of combustion devices is required if you add supplemental gases, as defined in § 63.2550, to the vent stream or manifold.

(j) *Continuous emissions monitoring systems.* Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in § 63.8 and paragraphs (j)(1) through (5) 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 (j)(2) of this section, except as specified in paragraph (j)(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 hydrogen halide and halogen HAP 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 (j)(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 organic 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 organic HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant organic 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 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B, except that the schedule in § 63.8(e)(4) does not apply, and the results of the performance evaluation must be included in the notification of compliance status report.

(4) The CEMS data must be reduced to operating day or operating block averages computed using valid data consistent with the data availability requirements specified in § 63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods 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 batch operations within a process. Operating block averages may be used only for batch process vent data.

(5) If you add supplemental gases, you must correct the measured concentrations in accordance with paragraph (i) of this section and § 63.2460(c)(6).

(k) *Continuous parameter monitoring.* The provisions in paragraphs (k)(1) through (4) of this section apply in addition to the requirements for continuous parameter monitoring system (CPMS) in subpart SS of this part 63.

(1) You must record the results of each calibration check and all maintenance performed on the CPMS as specified in § 63.998(c)(1)(ii)(A).

(2) When subpart SS of this part 63 uses the term ''a range'' or ''operating range'' of a monitored parameter, it means an ''operating limit'' for a monitored parameter for the purposes of this subpart.

(3) As an alternative to measuring pH as specified in § 63.994(c)(1)(i), you may elect to continuously monitor the caustic strength of the scrubber effluent.

(4) As an alternative to the inlet and outlet temperature monitoring requirements for catalytic incinerators as specified in § 63.988(c)(2), you may elect to comply with the requirements specified in paragraphs (k)(4)(i) through (iii) of this section.

(i) Monitor the inlet temperature as specified in subpart SS of this part 63.

(ii) Check the activity level of the catalyst at least every 12 months and take any necessary corrective action, such as replacing the catalyst to ensure that the catalyst is performing as designed.

(iii) Maintain records of the annual checks of catalyst activity levels and the subsequent corrective actions.

(l) *Startup, shutdown, and malfunction.* Sections 63.152(f)(7)(ii) through (iv) and 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of this subpart.

(m) *Reporting.* (1) When §§ 63.2455 through 63.2490 reference other subparts in this part 63 that use the term ''periodic report,'' it means ''compliance report'' for the purposes of this subpart. The compliance report must include the information specified in § 63.2520(e), as well as the information specified in referenced subparts.

(2) When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart.

(3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

(n) The option in § 63.997(e)(2)(iv)(C) to demonstrate compliance with a percent reduction emission limit by measuring TOC is not allowed.

(o) You may not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions.

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

(q) If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in Tables 1 through 7 to this subpart, then you must submit documentation in your precompliance report explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams.

(r) *Surge control vessels and bottoms receivers.* For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, you must meet emission limits and work practice standards specified in Table 4 to this subpart.

(s) For the purposes of determining Group status for continuous process vents, batch process vents, and storage tanks in §§ 63.2455, 63.2460, and 63.2470, hydrazine is to be considered an organic HAP.

§ 63.2455 What requirements must I meet for continuous process vents?

(a) You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section.

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in § 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of § 63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in § 63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.

(3) When § 63.115(d) refers to ''emission reductions specified in § 63.113(a),'' the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of § 63.982(e) and the requirements referenced therein, except as specified in § 63.2450 and paragraph (c)(1) of this section.

(1) When § 63.993 uses the phrase ''the TRE index value is between the level specified in a referencing subpart and 4.0,'' the phrase ''the TRE index value is >1.9 but ≤5.0'' applies for an existing affected source, and the phrase ''the TRE index value is >5.0 but ≤8.0'' applies for a new and reconstructed affected source, for the purposes of this subpart.

(2) [Reserved]

§ 63.2460 What requirements must I meet for batch process vents?

(a) You must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in paragraphs (b) and (c) of this section.

(b) *Group status.* If a process has batch process vents, as defined in § 63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs (b)(1) through (4) of this section.

(1) To calculate emissions caused by the heating of a vessel to a temperature lower than the boiling point, you must use the procedures in § 63.1257(d)(2)(i)(C)(*3*).

(2) To calculate emissions from depressurization, you must use the procedures in § 63.1257(d)(2)(i)(D)(*10*).

(3) To calculate emissions from vacuum systems for the purposes of this subpart, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as follows:

P_{system} = absolute pressure of receiving vessel;

P_i = partial pressure of the HAP at the receiver temperature;

P_j = partial pressure of condensable (including HAP) at the receiver temperature;

MW_i = molecular weight of the individual HAP in the emission stream, with HAP partial pressures calculated at the temperature of the receiver.

(4) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations described in paragraph (b)(4)(i) or (ii) of this section.

(i) If you comply with the alternative standard specified in § 63.2505.

(ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in § 63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in § 63.1257(b)(8)(ii)(C).

(c) Exceptions to the requirements in subpart SS of this part 63 are specified in paragraphs (c)(1) through (7) of this section.

(1) *Process condensers.* Process condensers, as defined in § 63.1251, are not considered to be control devices for batch process vents.

(2) *Initial compliance.* (i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this subpart, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process and show that the specified reduction is met.

(ii) When you conduct a performance test or design evaluation for a control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to § 63.1257(b)(8) instead of under normal operating conditions as specified in § 63.7(e)(1). The requirements in § 63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. References in § 63.997(b)(1) to ''methods specified in § 63.997(e)'' include the methods specified in § 63.1257(b)(8).

(iii) As an alternative to conducting a performance test or design evaluation for a condenser, you may determine controlled emissions using the procedures specified in § 63.1257(d)(3)(i)(B).

(iv) When § 63.1257(d)(3)(i)(B)(*7*) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with ''V equal to the air flow rate,'' it means ''V equal to the dryer outlet gas flow rate,'' for the purposes of this subpart. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.

(v) You must demonstrate that each process condenser is properly operated according to the procedures specified in § 63.1257(d)(2)(i)(C)(*4*)(*ii*) and (d)(3)(iii)(B). The reference in § 63.1257(d)(3)(iii)(B) to the alternative standard in § 63.1254(c) means § 63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by § 63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

(vi) 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.

(3) *Establishing operating limits.* You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (c)(3)(i) of this section and, if applicable, paragraph (c)(3)(ii) of this section.

(i) The 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 (c)(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(c).

(4) *Averaging periods.* As an alternative to the requirement for daily averages in § 63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

(5) *Periodic verification.* For a control device with total inlet HAP emissions less than 1 tpy, 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) 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 tpy. 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.

(6) *Outlet concentration correction for supplemental gases.* If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, you must correct the actual concentration for supplemental gases using Equation 1 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m\left(\frac{Q_s + Q_a}{Q_a}\right) \qquad \text{(Eq. 1)}$$

Where:

C_a = corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;

C_m = actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;

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

Q_s = total volumetric flowrate of supplemental gases.

(7) 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. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

§ 63.2465 What requirements must I meet for process vents that emit hydrogen halide and halogen HAP or PM HAP?

(a) You must meet each emission limit in Table 3 to this subpart that applies to you, and you must meet each applicable requirement in paragraphs (b) through (d) of this section.

(b) If any process vents within a process emit hydrogen halide and halogen HAP, you must determine and sum the uncontrolled hydrogen halide and halogen HAP emissions from each of the process vents within the process using the procedures specified in § 63.1257(d)(2)(i) and (ii).

(c) If collective uncontrolled hydrogen halide and halogen HAP emissions from the process vents within a process are greater than or equal to 1,000 pounds per year (lb/yr), you must comply with § 63.994 and the requirements referenced therein, except as specified in paragraphs (c)(1) through (3) of this section.

(1) When § 63.994(b)(1) requires a performance test, you may elect to conduct a design evaluation in accordance with § 63.1257(a)(1).

(2) When § 63.994(b)(1) refers to ''a combustion device followed by a halogen scrubber or other halogen reduction device,'' it means any combination of control devices used to meet the emission limits specified in Table 3 to this subpart.

(3) Section 63.994(b)(2) does not apply for the purposes of this section.

(d) To demonstrate compliance with the particulate matter (PM) HAP emission limit for new sources in Table 3 to this subpart, you must comply with paragraphs (d)(1) and (2) of this section.

(1) Use Method 5 of appendix A of 40 CFR part 60 to determine the concentration of PM HAP at the inlet and outlet of a control device.

(2) Comply with the monitoring requirements specified in § 63.1366(b)(1)(xi) for each fabric filter used to control PM HAP emissions.

§ 63.2470 What requirements must I meet for storage tanks?

(a) You must meet each emission limit in Table 4 to this subpart that applies to your storage tanks, and you must meet each applicable requirement specified in paragraphs (b) through (e) of this section.

(b) If you reduce organic HAP emissions by venting emissions to a fuel gas system or process, you must meet the requirements of § 63.982(d) and the requirements referenced therein.

(c) *Exceptions to subparts SS and WW of this part 63.*

(1) If you conduct a performance test or design evaluation for a control device used to control emissions only from storage tanks, you must establish operating limits, conduct monitoring, and keep records using the same procedures as required in subpart SS of this part 63 for control devices used to reduce emissions from process vents instead of the procedures specified in §§ 63.985(c), 63.998(d)(2)(i), and 63.999(b)(2).

(2) When the term ''storage vessel'' is used in subparts SS and WW of this part 63, the term ''storage tank,'' as defined in § 63.2550 applies for the purposes of this subpart.

(d) *Planned routine maintenance.* The emission limits in Table 4 to 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 limit specified in Table 4 to this subpart, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded.

(e) *Vapor balancing alternative.* As an alternative to the emission limits specified in Table 4 to this subpart, you may elect to implement vapor balancing in accordance with § 63.1253(f), except

as specified in paragraphs (e)(1) through (3) of this section.

(1) When § 63.1253(f)(6)(i) refers to a 90 percent reduction, 95 percent applies for the purposes of this subpart.

(2) To comply with § 63.1253(f)(6)(i), the owner or operator of an offsite cleaning and reloading facility must comply with §§ 63.2445 through 63.2550 instead of complying with § 63.1253(f)(7)(ii).

(3) You may elect to set a pressure relief device to a value less than the 2.5 pounds per square inch gage pressure (psig) required in § 63.1253(f)(5) if you provide rationale in your notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times.

§ 63.2475 What requirements must I meet for transfer racks?

(a) You must comply with each emission limit and work practice standard in Table 5 to this subpart that applies to your transfer racks, and you must meet each applicable requirement in paragraphs (b) and (c) of this section.

(b) When the term ''high throughput transfer rack'' is used in subpart SS of this part 63, the term ''Group 1 transfer rack,'' as defined in § 63.2550, applies for the purposes of this subpart.

(c) If you reduce organic HAP emissions by venting emissions to a fuel gas system or process, you must meet the requirements of § 63.982(d) and the requirements referenced therein.

§ 63.2480 What requirements must I meet for equipment leaks?

(a) You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) and (c) of this section.

(b) The requirements for pressure testing in § 63.1036(b) may be applied to all processes, not just batch processes.

(c) For the purposes of this subpart, pressure testing for leaks in accordance with § 63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

§ 63.2485 What requirements must I meet for wastewater streams and liquid streams in open systems within an MCPU?

(a) You must meet each requirement in Table 7 to this subpart that applies to your wastewater streams and liquid streams in open systems within an MCPU, except as specified in paragraphs (b) through (l) of this section.

(b) *Wastewater HAP.* Where § 63.105 and §§ 63.132 through 63.148 refer to compounds in Table 9 of subpart G of this part 63, the compounds in Tables 8 and 9 to this subpart apply for the purposes of this subpart.

(c) *Group 1 wastewater.* Section 63.132(c)(1) (i) and (ii) do not apply. For the purposes of this subpart, a process wastewater stream is Group 1 for compounds in Tables 8 and 9 to this subpart if any of the conditions specified in paragraphs (c) (1) through (3) of this section are met.

(1) The total annual average concentration of compounds in Table 8 to this subpart is greater than 50 ppmw, and the combined total annual average concentration of compounds in Tables 8 and 9 to this subpart is greater than or equal to 10,000 ppmw at any flowrate.

(2) The total annual average concentration of compounds Table 8 to this subpart is greater 50 ppmw, the combined total annual average concentration of compounds in Tables 8 and 9 to this subpart is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.

(3) The total annual average concentration of compounds in Table 8 to this subpart is less than or equal to 50 ppmw, the total annual average concentration of compounds in Table 9 to this subpart is greater than or equal to 30,000 ppmw at an existing source or greater than or equal to 4,500 ppmw at a new source, and the total annual load of compounds in Table 9 to this subpart is greater than or equal to 1 tpy.

(d) *Wastewater tank requirements.* (1) When §§ 63.133 and 63.147 reference floating roof requirements in §§ 63.119 and 63.120, the corresponding requirements in subpart WW of this part 63 may be applied for the purposes of this subpart.

(2) When § 63.133 refers to Table 9 of subpart G of this part 63, the maximum true vapor pressure in the table shall be limited to the HAP listed in Tables 8 and 9 to this subpart.

(3) For the purposes of this subpart, the requirements of § 63.133(a)(2) are satisfied by operating and maintaining a fixed roof if you demonstrate that the total soluble and partially soluble HAP emissions from the wastewater tank are no more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by an exothermic reaction, or sparged.

(4) The emission limits specified in §§ 63.133(b)(2) and 63.139 for control devices used to control emissions from wastewater tanks do not apply during periods of planned routine maintenance of the control device(s) of no more than 240 hr/yr. You may request an extension to a total of 360 hr/yr in accordance with the procedures specified in § 63.2470(d).

(e) *Individual drain systems.* The provisions of § 63.136(e)(3) apply except as specified in paragraph (e)(1) of this section.

(1) A sewer line connected to drains that are in compliance with § 63.136(e)(1) may be vented to the atmosphere, provided that the sewer line entrance to the first downstream junction box is water sealed and the sewer line vent pipe is designed as specified in § 63.136(e)(2)(ii)(A).

(2) [Reserved]

(f) *Closed-vent system requirements.* When § 63.148(k) refers to closed vent systems that are subject to the requirements of § 63.172, the requirements of either § 63.172 or § 63.1034 apply for the purposes of this subpart.

(g) *Halogenated vent stream requirements.* For each halogenated vent stream from a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream that is vented through a closed-vent system to a combustion device to reduce organic HAP emissions, you must meet the same emission limits as specified for batch process vents in item 2 of Table 2 to this subpart.

(h) *Alternative test methods.* (1) As an alternative to the test methods specified in § 63.144(b)(5)(i), you may use Method 8260 or 8270 as specified in § 63.1257(b)(10)(iii).

(2) As an alternative to using the methods specified in § 63.144(b)(5)(i), you may conduct wastewater analyses using Method 1666 or 1671 of 40 CFR part 136 and comply with the sampling protocol requirements specified in § 63.144(b)(5)(ii). The validation requirements specified in § 63.144(b)(5)(iii) do not apply if you use Method 1666 or 1671 of 40 CFR part 136.

(3) As an alternative to using Method 18 of 40 CFR part 60, as specified in §§ 63.139(c)(1)(ii) and 63.145(i)(2), you may elect to use Method 25A of 40 CFR part 60 as specified in § 63.997.

(i) *Offsite management and treatment option.* (1) If you ship wastewater to an offsite treatment facility that meets the requirements of § 63.138(h), you may elect to document in your notification of compliance status report that the wastewater will be treated as hazardous waste at a facility that meets the requirements of § 63.138(h) as an alternative to having the offsite facility submit the certification specified in § 63.132(g)(2).

(2) 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) with a total annual average concentration of compounds in Table 8 to this subpart less than 50 ppmw may be transferred offsite in accordance with paragraphs (i)(2) (i) and (ii) of this section.

(i) The transferee (or you) must demonstrate that less than 5 percent of the HAP in Table 9 to this subpart is emitted from the waste management units up to the activated sludge unit.

(ii) The transferee must treat the wastewater stream or residual in a biological treatment unit in accordance with §§ 63.138 and 63.145 and the requirements referenced therein.

(j) You must determine the annual average concentration and annual average flowrate for wastewater streams for each MCPU. The procedures for flexible operation units specified in § 63.144 (b) and (c) do not apply for the purposes of this subpart.

(k) The requirement to correct outlet concentrations from combustion devices to 3 percent oxygen in §§ 63.139(c)(1)(ii) and 63.146(i)(6) applies only if supplemental gases are combined with a vent stream from a Group 1 wastewater stream. If emissions are controlled with a vapor recovery system as specified in § 63.139(c)(2), you must correct for supplemental gases as specified in § 63.2460(c)(6).

(l) *Requirements for liquid streams in open systems.* (1) References in § 63.149 to § 63.100(b) mean § 63.2435(b) for the purposes of this subpart.

(2) When § 63.149(e) refers to 40 CFR 63.100(l) (1) or (2), § 63.2445(a) applies for the purposes of this subpart.

(3) When § 63.149 uses the term ''chemical manufacturing process unit,'' the term ''MCPU'' applies for the purposes of this subpart.

(4) When § 63.149(e)(1) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraphs (c) (1) through (3) of this section apply for the purposes of this subpart.

(5) When § 63.149(e)(2) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraph (c)(2) of this section apply for the purposes of this subpart.

§ 63.2490 What requirements must I meet for heat exchange systems?

(a) You must comply with each requirement in Table 10 to this subpart that applies to your heat exchange systems, except as specified in paragraphs (b) and (c) of this section.

(b) The phrase ''a chemical manufacturing process unit meeting the conditions of § 63.100 (b)(1) through (b)(3) of this section'' in § 63.104(a) means ''an MCPU meeting the conditions of § 63.2435'' for the purposes of this subpart.

(c) The reference to § 63.100(c) in § 63.104(a) does not apply for the purposes of this subpart.

Alternative Means of Compliance

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

(a) 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 1 through 7 to this subpart for any MCPU for which initial startup occurred before April 4, 2002.

(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. 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) Any MCPU for which you seek to comply by using the pollution prevention alternative must begin with the same starting material(s) and end with the same product(s). You may not comply by eliminating any steps of a process by transferring the step offsite (to another manufacturing location). You may also not merge a solvent recovery step conducted offsite to onsite and as part of an existing process as a method of reducing consumption.

(3) 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 1 through 7 to this subpart for all HAP that are generated in the MCPU and that are not included in consumption, as defined in § 63.2550. Hydrogen halides that are generated as a result of combustion control must be controlled according to the requirements of § 63.994 and the requirements referenced therein.

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

(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 plan.* You must prepare a pollution prevention demonstration plan 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.

(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, samples of operator log sheets and daily, monthly, and/or annual inventories of materials and products. You must describe 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.

(3) *Target annual factors.* You must calculate target annual HAP and VOC factors. The target annual HAP factor must be equal to 35 percent of the baseline HAP factor. The target annual VOC factor must be lower than the baseline VOC factor by an amount equivalent to the reduction in any HAP that is also a VOC, on a mass basis. The target annual VOC factor may be the same as the baseline VOC factor if the only HAP you reduce is not a VOC.

(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 plan in the precompliance report required by § 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, 2, 4, 5, and 7 to this subpart by complying with the emissions averaging provisions specified in § 63.150, except as specified in paragraphs (b) through (f) of this section.

(b) The batch process vents in an MCPU collectively are considered one individual emission point for the purposes of emissions averaging, except that only individual batch process vents must be excluded to meet the requirements of § 63.150(d)(5).

(c) References in § 63.150 to §§ 63.112 through 63.130 mean the corresponding requirements in §§ 63.2450 through 63.2490, including applicable monitoring, recordkeeping, and reporting.

(d) References to ''periodic reports'' in § 63.150 mean ''compliance report'' for the purposes of this subpart.

(e) For batch process vents, estimate uncontrolled emissions for a standard batch using the procedures in § 63.1257(d)(2)(i) and (ii) instead of the procedures in § 63.150(g)(2). Multiply the calculated emissions per batch by the number of batches per month when calculating the monthly emissions for use in calculating debits and credits.

(f) References to ''storage vessels'' in § 63.150 mean ''storage tank'' as defined in § 63.2550 for the purposes of this subpart.

§ 63.2505 How do I comply with the alternative standard?

As an alternative to complying with the emission limits and work practice standards for process vents and storage tanks in Tables 1 through 4 to this subpart and the requirements in §§ 63.2455 through 63.2470, you may comply with the emission limits in paragraph (a) of this section and demonstrate compliance in accordance with the requirements in paragraph (b) of this section.

(a) *Emission limits 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 parts per million by volume (ppmv) or less.

(B) To an outlet concentration of hydrogen halide and halogen HAP of 20 ppmv or less.

(C) As an alternative to paragraph (a)(1)(i)(B) of this section, if you control halogenated vent streams emitted from a combustion device followed by a scrubber, reduce the hydrogen halide and halogen HAP generated in the combustion device by greater than or equal to 95 percent by weight in the scrubber.

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

(2) Any Group 1 process vents within a process that are not controlled according to this alternative standard must be controlled according to the emission limits in Tables 1 through 3 to this subpart.

(b) *Compliance requirements.* To demonstrate compliance with paragraph (a) of this section, you must meet the requirements of § 63.1258(b)(5)(i) beginning no later than the initial compliance date specified in § 63.2445, except as specified in paragraphs (b)(1) through (7) of this section.

(1) You must comply with the requirements in § 63.983 and the requirements referenced therein for closed-vent systems.

(2) When § 63.1258(b)(5)(i) refers to §§ 63.1253(d) and 63.1254(c), the requirements in paragraph (a) of this section apply for the purposes of this subpart.

(3) You must submit the results of any determination of the target analytes or predominant HAP in the notification of compliance status report.

(4) When § 63.1258(b)(5)(i)(B) refers to ''HCl,'' it means ''total hydrogen halide and halogen HAP'' for the purposes of this subpart.

(5) If you elect to comply with the requirement to reduce hydrogen halide and halogen HAP by greater than or equal to 95 percent by weight in paragraph (a)(1)(i)(C) of this section, you must meet the requirements in paragraphs (b)(5)(i) and (ii) of this section.

(i) Demonstrate initial compliance with the 95 percent reduction by conducting a performance test and setting a site-specific operating limit(s) for the scrubber in accordance with § 63.994 and the requirements referenced therein. You must submit the results of the initial compliance demonstration in the notification of compliance status report.

(ii) Install, operate, and maintain CPMS for the scrubber as specified in § 63.2450(k), instead of as specified in § 63.1258(b)(5)(i)(C).

(6) If flow to the scrubber could be intermittent, you must install, calibrate, and operate a flow indicator as specified in § 63.2460(c)(7).

(7) Use the operating day as the averaging period for CEMS data and scrubber parameter monitoring data.

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), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) *Initial notification.* As specified in § 63.9(b)(2), if you startup your affected source before November 10, 2003, you must submit an initial notification not later than 120 calendar days after November 10, 2003.

(2) As specified in § 63.9(b)(3), if you startup your new affected source on or after November 10, 2003, you must submit an initial notification not later than 120 calendar days after you become subject to this subpart.

(c) *Notification of performance test.* 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). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to 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.

§ 63.2520 What reports must I submit and when?

(a) You must submit each report in Table 11 to 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 11 to 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 6 months after the compliance date that is specified for your affected source in § 63.2445.

(2) The first compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the first reporting period specified in paragraph (b)(1) of this section.

(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 August 31 or February 28, 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 for any of the items in paragraphs (c)(1) through (7) 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 specified in §§ 63.2455 through 63.2485 and referenced therein. 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 § 63.2460(c)(5) are operating as designed.

(3) A description of the test conditions, data, calculations, and other information used to establish operating limits according to § 63.2460(c)(3).

(4) Data and rationale used to support an engineering assessment to calculate uncontrolled emissions in accordance with § 63.1257(d)(2)(ii).

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

(6) Documentation of the practices that you will implement to minimize HAP emissions from streams that contain energetics and organic peroxides, and rationale for why meeting the emission limit specified in Tables 1 through 7 to this subpart would create an undue safety hazard.

(7) For fabric filters that are monitored with bag leak detectors, an operation and maintenance plan that describes proper operation and maintenance procedures, and a corrective action plan that describes corrective actions to be taken, and the timing of those actions, when the PM concentration exceeds the set point and activates the alarm.

(d) *Notification of compliance status report.* You must submit a notification of compliance status report according to the schedule in paragraph (d)(1) of this section, and the notification of compliance status report must contain the information specified in paragraph (d)(2) of this section.

(1) You must submit the notification of compliance status report no later than 150 days after the applicable compliance date specified in § 63.2445.

(2) The notification of compliance status report must include the information in paragraphs (d)(2)(i) through (ix) 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 §§ 63.2455 through 63.2485. 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) All operating scenarios.

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

(vi) Identification of parts of the affected source 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 6 to this subpart.

(viii) Identify storage tanks for which you are complying with the vapor balancing alternative in § 63.2470(g).

(ix) Records as specified in § 63.2535(i)(1) through (3) of process units used to create a PUG and calculations of the initial primary product of the PUG.

(e) *Compliance report.* The compliance report must contain the information specified in paragraphs (e)(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) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.

(5) The compliance report must contain the information on deviations, as defined in § 63.2550, according to paragraphs (e)(5)(i), (ii), and (iii) of this section.

(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (e)(5)(ii)(A) through (C) of this section. This includes periods of SSM.

(A) The total operating time of the 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 for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (e)(5)(iii)(A) through (L) of this section. This includes periods of SSM.

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

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

(C) 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.

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

(E) 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.

(F) 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 operating time of the affected source during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream.

(H) A brief description of the process units.

(I) A brief description of the CMS.

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

(K) Operating logs for each day(s) during which the deviation occurred.

(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

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

(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous 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 purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.

(8) Records of process units added to a PUG as specified in § 63.2525(i)(4) and records of primary product redeterminations as specified in § 63.2525(i)(5).

(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, SS, UU, WW, and GGG of this part.

(10) *Notification of process change.* (i) Except as specified in paragraph (e)(10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch. The notification must include all of the information in paragraphs (e)(10)(i)(A) through (C) of this section.

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.

(C) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (e)(10)(ii)(A), (B), or (C) of this section.

(A) Any change to the information contained in the precompliance report.

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

(C) A change from Group 2 to Group 1 for any emission point.

§ 63.2525 What records must I keep?

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

(a) Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63.

(b) Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.

(1) A description of the process and the type of process equipment used.

(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in § 63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.

(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 device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

(7) Calculations and engineering analyses required to demonstrate compliance.

(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(5) of this section, constitutes a new operating scenario.

(c) A schedule or log of operating scenarios updated each time a different operating scenario is put into operation.

(d) The information specified in paragraphs (d)(1) and (2) of this section for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.

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

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

(e) The information specified in paragraphs (e)(1) through (4) of this section for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No record is required if you documented in the notification of compliance status report that the MCPU does not process, use, or produce HAP.

(1) A record of the day each batch was completed.

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

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

(4) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (*e.g.*, number of batches), calculated no less frequently than monthly.

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with § 63.2450(s).

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in § 63.2450(k)(1).

(h) For each CEMS, you must keep 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.

(i) For each PUG, you must keep records specified in paragraphs (i)(1) through (5) of this section.

(1) Descriptions of the MCPU and other process units in the initial PUG required by § 63.2535(l)(1)(v).

(2) Rationale for including each MCPU and other process unit in the initial PUG (*i.e.*, identify the overlapping equipment between process units) required by § 63.2535(l)(1)(v).

(3) Calculations used to determine the primary product for the initial PUG required by § 63.2535(l)(2)(iv).

(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by § 63.2535(l)(1)(v).

(5) The calculation of each primary product redetermination required by § 63.2535(l)(2)(iv).

(j) In the SSMP required by § 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

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?

For any equipment, emission stream, or wastewater stream subject to the provisions of both this subpart and another rule, you may elect to comply only with the provisions as specified in paragraphs (a) through (l) of this section. You also must identify the subject equipment, emission stream, or wastewater stream, and the provisions with which you will comply, in your notification of compliance status report required by § 63.2520(d).

(a) *Compliance with other subparts of this part 63.* If you have an MCPU that includes a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63, you must comply with the emission limits; operating limits; work practice standards; and the compliance, monitoring, reporting and recordkeeping requirements for batch process vents in this subpart, and you must continue to comply with the requirements in subparts F, G, and H of this part 63 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 (b)(1), 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(e).

(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 parts 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 parts 264 and/or 265 duplicate the requirements of this subpart.

(c) *Compliance with 40 CFR part 60, subpart Kb and 40 CFR part 61, subpart Y.* 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 either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y. 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 either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart FFFF. Alternatively, if a storage tank assigned to an MCPU is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to

comply only with the requirements for Group 1 storage tanks in this subpart FFFF.

(d) *Compliance with subpart I, GGG, or MMM of this part 63.* After the compliance dates specified in § 63.2445, if you have an affected source with equipment subject to subpart I, GGG, or MMM of this part 63, you may elect to comply with the provisions of subpart H, GGG, or MMM of this part 63, respectively, for all such equipment.

(e) *Compliance with subpart GGG of this part 63 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 that meet the applicability thresholds specified in § 63.1256, you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams.

(f) *Compliance with subpart MMM of this part 63 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 that meet the applicability thresholds specified in § 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).

(g) *Compliance with other regulations for wastewater.* After the compliance dates specified in § 63.2445, if you have a Group 1 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. You must identify in the notification of compliance status report required by § 63.2520(d) the information and procedures that you used to make any stringency determinations.

(h) *Compliance with 40 CFR part 60, subpart DDD, III, NNN, or 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 DDD, III, NNN, or RRR, you may elect to apply this subpart to all such equipment in the MCPU. If an MCPU subject to the provisions of this subpart has equipment to which this subpart does not apply but which is subject to a standard in 40 CFR part 60, subpart DDD, III, NNN, or RRR, you may elect to comply with the requirements for Group 1 process vents in this subpart for such equipment. If you elect any of these methods of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph (h), will constitute compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR, as applicable.

(i) *Compliance with 40 CFR part 61, subpart BB.* (1) After the compliance dates specified in § 63.2445, a Group 1 transfer rack, as defined in § 63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, you are required to comply only with the provisions of this subpart.

(2) After the compliance dates specified in § 63.2445, a Group 2 transfer rack, as defined in § 63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, is required to comply with the provisions of either paragraph (l)(2)(i) or (ii) of this section.

(i) If the transfer rack is subject to the control requirements specified in § 61.302 of 40 CFR part 61, subpart BB, then you may elect to comply with either the requirements of 40 CFR part 61, subpart BB, or the requirements for Group 1 transfer racks under this subpart FFFF.

(ii) If the transfer rack is subject only to reporting and recordkeeping requirements under 40 CFR part 61, subpart BB, then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 transfer racks, and you are exempt from the reporting and recordkeeping requirements in 40 CFR part 61, subpart BB.

(j) *Compliance with 40 CFR part 61, subpart FF.* After the compliance date specified in § 63.2445, for a Group 1 or Group 2 wastewater stream that is also subject to the provisions of 40 CFR 61.342(c) through (h), and is not exempt under 40 CFR 61.342(c)(2) or (3), you may elect to comply only with the requirements for Group 1 wastewater streams in this subpart FFFF. If a Group 2 wastewater stream is exempted from 40 CFR 61.342(c)(1) under 40 CFR 61.342(c)(2) or (3), then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 wastewater streams, and you are exempt from the requirements in 40 CFR part 61, subpart FF.

(k) *Compliance with 40 CFR part 60, subpart VV, and 40 CFR part 61, subpart V.* After the compliance date specified in § 63.2445, if you have an affected source with equipment that is also subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to apply this subpart to all such equipment. Alternatively, if you have an affected source with no continuous process vents and equipment that is also subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to comply with 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, as applicable, for all such equipment.

(l) *Applicability of process units included in a process unit group.* You may elect to develop and comply with the requirements for PUG in accordance with paragraphs (l)(1) through (3) of this section.

(1) *Procedures to create process unit groups.* Develop and document changes in a PUG in accordance with the procedures specified in paragraphs (l)(1)(i) through (v) of this section.

(i) Initially, identify an MCPU that is created from nondedicated equipment that will operate on or after November 10, 2003 and identify all processing equipment that is part of this MCPU, based on descriptions in operating scenarios.

(ii) Add to the group any other nondedicated MCPU and other nondedicated process units expected to be operated in the 5 years after the date specified in paragraph (l)(1)(i) of this section, provided they satisfy the criteria specified in paragraphs (l)(1)(ii)(A) through (C) of this section. Also identify all of the processing equipment used for each process unit based on information from operating scenarios and other applicable documentation.

(A) Each process unit that is added to a group must have some processing equipment that is also part of one or more process units in the group.

(B) No process unit may be part of more than one PUG.

(C) The processing equipment used to satisfy the requirement of paragraph (l)(1)(ii)(A) of this section may not be a storage tank or control device.

(iii) The initial PUG consists of all of the processing equipment for the process units identified in paragraphs (l)(1)(i) and (ii) of this section. As an alternative to the procedures specified in paragraphs (l)(1)(i) and (ii) of this section, you may use a PUG that was developed in accordance with § 63.1360(h) as your initial PUG.

(iv) Add process units developed in the future in accordance with the conditions specified in paragraphs (l)(1)(ii)(A) and (B) of this section.

(v) Maintain records that describe the process units in the initial PUG, the procedure used to create the PUG, and subsequent changes to each PUG as specified in § 63.2525(i). Submit the records in reports as specified in § 63.2520(d)(2)(ix) and (e)(8).

(2) *Determine primary product.* You must determine the primary product of each PUG created in paragraph (l)(1) of this section according to the procedures specified in paragraphs (l)(2)(i) through (iv) of this section.

(i) The primary product is the type of product (*e.g.*, organic chemicals subject to § 63.2435(b)(1), pharmaceutical products subject to § 63.1250, or pesticide active ingredients subject to § 63.1360) expected to be produced for the greatest operating time in the 5-year period specified in paragraph (l)(1)(ii) of this section.

(ii) If the PUG produces multiple types of products equally based on operating time, then the primary product is the type of product with the greatest production on a mass basis over the 5-year period specified in paragraph (l)(1)(ii) of this section.

(iii) At a minimum, you must redetermine the primary product of the PUG following the procedure specified in paragraphs (l)(2)(i) and (ii) of this section every 5 years.

(iv) You must record the calculation of the initial primary product determination as specified in § 63.2525(i)(3) and report the results in the notification of compliance status report as specified in § 63.2520(d)(8)(ix). You must record the calculation of each redetermination of the primary product as specified in § 63.2525(i)(5) and report the calculation in a compliance report submitted no later than the report covering the period for the end of the 5th year after cessation of production of the previous primary product, as specified in § 63.2520(e)(8).

(3) *Compliance requirements.* (i) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material described in § 63.2435(b)(1), then you must comply with this subpart for each MCPU in the PUG. You may also elect to comply with this subpart for all other process units in the PUG, which constitutes compliance with other part 63 rules.

(ii) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material not described in § 63.2435(b)(1), then you must comply with paragraph (l)(3)(ii)(A), (B), or (C) of this section, as applicable.

(A) If the primary product is subject to subpart GGG of this part 63, then comply with the requirements of subpart GGG for each MCPU in the PUG.

(B) If the primary product is subject to subpart MMM of this part 63, then comply with the requirements of subpart MMM for each MCPU in the PUG.

(C) If the primary product is subject to any subpart in this part 63 other than subpart GGG or subpart MMM, then comply with the requirements of this subpart for each MCPU in the PUG.

(iii) The requirements for new and reconstructed sources in the alternative subpart apply to all MCPU in the PUG if and only if the affected source under the alternative subpart meets the requirements for construction or reconstruction.

§ 63.2540 What parts of the General Provisions apply to me?

Table 12 to 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 U.S. Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency also has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

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

(1) Approval of alternatives to the non-opacity emission limits 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) For an affected source complying with the requirements in subpart SS of this part 63, the terms used in this subpart and in subpart SS of this part 63 have the meaning given them in § 63.981, except as specified in §§ 63.2450(k)(2) and (m), 63.2470(c)(2), 63.2475(b), and paragraph (i) of this section.

(b) For an affected source complying with the requirements in subpart TT of this part 63, the terms used in this subpart and in subpart TT of this part 63 have the meaning given them in § 63.1001.

(c) For an affected source complying with the requirements in subpart UU of this part 63, the terms used in this subpart and in subpart UU of this part 63 have the meaning given them in § 63.1020.

(d) For an affected source complying with the requirements in subpart WW of this part 63, the terms used in this subpart and subpart WW of this part 63 have the meaning given them in § 63.1061, except as specified in §§ 63.2450(m), 63.2470(c)(2), and paragraph (i) of this section.

(e) For an affected source complying with the requirements in §§ 63.132 through 63.149, the terms used in this subpart and §§ 63.132 through 63.149 have the meaning given them in §§ 63.101 and 63.111, except as specified in § 63.2450(m) and paragraph (i) of this section.

(f) For an affected source complying with the requirements in §§ 63.104 and 63.105, the terms used in this subpart and in §§ 63.104 and 63.105 of this subpart have the meaning given them in § 63.101, except as specified in §§ 63.2450(m), 63.2490(b), and paragraph (i) of this section.

(g) For an affected source complying with requirements in §§ 63.1253, 63.1257, and 63.1258, the terms used in this subpart and in §§ 63.1253, 63.1257, and 63.1258 have the meaning given them in § 63.1251, except as specified in § 63.2450(m) and paragraph (i) of this section.

(h) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart

F, have the meaning given them in 40 CFR 65.2.

(i) All other terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2, and in this paragraph (i). If a term is defined in § 63.2, § 63.101, § 63.111, § 63.981, § 63.1001, § 63.1020, § 63.1061, § 63.1251, or § 65.2 and in this paragraph (i), the definition in this paragraph (i) applies for the purposes of this subpart.

Ancillary activities means boilers and incinerators (not used to comply with the emission limits in Tables 1 through 7 to 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.

Batch operation means a noncontinuous operation involving intermittent or discontinuous feed into equipment, and, in general, involves the emptying of the equipment after the operation ceases and prior to beginning a new operation. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation.

Batch 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 batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:

(1) Continuous process vents;

(2) Bottoms receivers;

(3) Surge control vessels;

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

(5) Vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the emission limits and work practice standards in Tables 4, 6, and 7 to this subpart;

(6) Drums, pails, and totes;

(7) Flexible elephant trunk systems that draw ambient air (*i.e.*, the system is not ducted, piped, or otherwise connected to the unit operations) away from operators when vessels are opened; and

(8) Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP or less than 200 lb/yr. The HAP concentration or mass emission rate may be determined using any of the following: process knowledge that no HAP are present in the emission stream; an engineering assessment as discussed in § 63.1257(d)(2)(ii); equations specified in § 63.1257(d)(2)(i), as applicable; 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 63.

Bottoms receiver means a tank that collects bottoms from continuous distillation before the stream is sent for storage or for further downstream processing.

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 § 63.2.

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.

Continuous process vent means the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream if the gas stream has the characteristics specified in § 63.107(b) through (h), or meets the criteria specified in § 63.107(i), except:

(1) The reference in § 63.107(e) to a chemical manufacturing process unit that meets the criteria of § 63.100(b) means an MCPU that meets the criteria of § 63.2435(b);

(2) The reference in § 63.107(h)(4) to § 63.113 means Table 1 to this subpart;

(3) The references in § 63.107(h)(7) to §§ 63.119 and 63.126 mean Tables 4 and 5 to this subpart; and

(4) For the purposes of § 63.2455, all references to the characteristics of a process vent (*e.g.*, flowrate, total HAP concentration, or TRE index value) mean the characteristics of the gas stream.

Dedicated MCPU means an MCPU that consists of equipment that is used exclusively for one process, except that storage tanks assigned to the process according to the procedures in § 63.2435(d) also may be shared by other processes.

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 limit, operating limit, or work practice standard; or

(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 limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with Table 6 to this subpart.

Excess emissions means emissions greater than those allowed by the emission limit.

Family of materials means a grouping of materials with the same basic composition or the same basic end use or functionality produced using the same basic feedstocks with essentially identical HAP emission profiles (primary constituent and relative magnitude on a pound per product basis) and manufacturing equipment configuration. Examples of families of materials include multiple grades of the same product or different variations of a product (*e.g.*, blue, black, and red resins).

Group 1 batch process vent means each of the batch process vents in a process for which the collective uncontrolled organic HAP emissions from all of the batch process vents are greater than or equal to 10,000 lb/yr at an existing source or greater than or equal to 3,000 lb/yr at a new source.

Group 2 batch process vent means each batch process vent that does not meet the definition of Group 1 batch process vent.

Group 1 continuous process vent means a continuous process vent with a total resource effectiveness index value, calculated according to § 63.2455(b), that is less than 1.9 at an existing source and less than 5.0 at a new source.

Group 2 continuous process vent means a continuous process vent that

does not meet the definition of a Group 1 continuous process vent.

Group 1 storage tank means a storage tank with a capacity greater than or equal to 10,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 6.9 kilopascals at an existing source or greater than or equal to 0.69 kilopascals at a new source.

Group 2 storage tank means a storage tank that does not meet the definition of a Group 1 storage tank.

Group 1 transfer rack means a transfer rack that loads more than 0.65 million liters/year of liquids that contain organic HAP with a rack-weighted average partial pressure, as defined in § 63.111, greater than or equal to 1.5 pound per square inch absolute.

Group 2 transfer rack means a transfer rack that does not meet the definition of a Group 1 transfer rack.

Group 1 wastewater stream means a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in § 63.2485(c) for compounds in Tables 8 and 9 to this subpart and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in § 63.132(d) for compounds in Table 8 to subpart G of this part 63.

Group 2 wastewater stream means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

Halogenated vent stream means a vent stream determined to have a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour or greater determined by the procedures presented in § 63.115(d)(2)(v).

Hydrogen halide and halogen HAP means hydrogen chloride, hydrogen fluoride, and chlorine.

In organic HAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of § 63.180(d). The provisions of § 63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Isolated intermediate means a product of a process that is stored before subsequent processing. An isolated intermediate is usually a product of a chemical synthesis, fermentation, or biological extraction process. Storage of an isolated intermediate marks the end of a process. Storage occurs at any time the intermediate is placed in equipment used solely for storage.

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tpy, 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 routine cleaning operations occurring as part of batch operations is not considered maintenance wastewater.

Maximum true vapor pressure has the meaning given in § 63.111, except that it applies to all HAP rather than only organic HAP.

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). 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. A process is also defined by the following:

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

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

(3) Each nondedicated formulation operation is considered a single process that is used to formulate numerous materials and/or products;

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

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

Nondedicated solvent recovery operation means a distillation unit or other purification equipment that receives used solvent from more than one MCPU.

Nonstandard batch means a batch process that is operated outside of the range of operating conditions that are documented in an existing operating scenario but is still a reasonably anticipated event. For example, a nonstandard batch occurs when additional processing or processing at different operating conditions must be conducted to produce a product that is normally produced under the conditions described by the standard batch. A nonstandard batch may be necessary as a result of a malfunction, but it is not itself a malfunction.

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.

Operating scenario means, for the purposes of reporting and recordkeeping, any specific operation of an MCPU as described by records specified in § 63.2525(b).

Organic group means structures that contain primarily carbon, hydrogen, and oxygen atoms.

Organic peroxides means organic compounds containing the bivalent -o-o- structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Predominant HAP means as used in calibrating an analyzer, the single organic HAP that constitutes the largest percentage of the total organic HAP in the analyzed gas stream, by volume.

Process tank means a tank or vessel that is used within a process to collect material discharged from a feedstock storage tank or equipment within the process before the material is transferred to other equipment within the process or a product storage tank. A process tank has emissions that are related to the characteristics of the batch cycle, and it does not accumulate product over multiple batches. Surge control vessels and bottoms receivers are not process tanks.

Production-indexed HAP consumption factor (HAP factor) means the result of dividing the annual consumption of total HAP by the annual production rate, per process.

Production-indexed VOC consumption factor (VOC factor) means the result of dividing the annual consumption of total VOC by the annual production rate, per process.

Quaternary ammonium compounds means a type of organic nitrogen compound in which the molecular structure includes a central nitrogen atom joined to four organic groups as well as an acid radical of some sort.

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 multi-phase liquid streams.

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

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Shutdown means the cessation of operation of a continuous operation for any purpose. Shutdown also means the cessation of a batch operation, or any related individual piece of equipment required or used to comply with this subpart, if the steps taken to cease operation differ from those described in a standard batch or nonstandard batch. Shutdown also applies to emptying and degassing storage vessels. Shutdown does not apply to cessation of batch operations at the end of a campaign or between batches within a campaign when the steps taken are routine operations.

Small control device means a control device that controls total HAP emissions of less than 10 tpy, 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 operation for any purpose; the first time a new or reconstructed batch operation begins production; for new equipment added, including equipment required or 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 operations, startup applies 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 if the steps taken to begin production differ from those specified in a standard batch or nonstandard batch. Startup does not apply when the equipment is put into operation as part of a batch within a campaign when the steps taken are routine operations.

Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP and/or hydrogen halide and halogen HAP and that has been assigned to an MCPU according to the procedures in § 63.2435(d). 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;

(5) Bottoms receivers;

(6) Surge control vessels; and

(7) Process tanks.

Supplemental gases are any gaseous streams that are not defined as process vents, 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.

Surge control vessel means feed drums, recycle drums, and intermediate vessels immediately preceding continuous reactors, air-oxidation reactors, or distillation operations. Surge control vessels are used within an MCPU when in-process storage, mixing, or management of flowrates or volumes is needed to introduce material into continuous reactors, air-oxidation reactors, or distillation operations.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are assigned to an MCPU according to the procedures specified in § 63.2435(d) and are used to fill tank trucks and/or rail cars with organic liquids that contain one or more of the organic HAP listed in section 112(b) of the CAA of this subpart. Transfer rack includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves.

Unit operation means those processing steps that occur within distinct equipment that are used, among other things, to prepare reactants, facilitate reactions, separate and purify products, and recycle materials. Equipment used for these purposes includes, but is not limited to, reactors, distillation columns, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.

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 being operated as a recovery device, then it is part of a miscellaneous organic chemical manufacturing process and is not a waste management unit.

Wastewater means water that is discarded from an MCPU through a single POD and that contains either: an annual average concentration of compounds in Table 8 or 9 to this subpart of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in Table 8 or 9 to this subpart of at least 10,000 ppmw at any flowrate. The

following are not considered wastewater for the purposes of this subpart:

(1) Stormwater from segregated sewers;

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

(3) Spills;

(4) Water from safety showers;

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

(6) Equipment leaks;

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

(8) Noncontact cooling water.

Wastewater stream means a stream that contains only wastewater as defined in this paragraph (h).

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 CAA.

Tables to Subpart FFFF of Part 63

As required in § 63.2455, you must meet each emission limit and work practice standard in the following table that applies to your continuous process vents:

TABLE 1 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR CONTINUOUS PROCESS VENTS

For each . . .	For which . . .	Then you must . . .
1. Group 1 continuous process vent.	a. Not applicable	i. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet process concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or ii. Reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare; or iii. Use a recovery device to maintain the TRE above 1.9 for an existing source or above 5.0 for a new source.
2. Halogenated Group 1 continuous process vent stream.	a. You use a combustion control device to control organic HAP emissions.	i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv; or ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.
3. Group 2 continuous process vent at an existing source.	You use a recovery device to maintain the TRE level >1.9 but ≤5.0.	Comply with the requirements in § 63.993 and the requirements referenced therein.
4. Group 2 continuous process vent at a new source.	You use a recovery device to maintain the TRE level >5.0 but ≤8.0.	Comply with the requirements in § 63.993 and the requirements referenced therein.

As required in § 63.2460, you must meet each emission limit and work practice standard in the following table that applies to your batch process vents:

TABLE 2 TO SUBPART FFFF OF PART 63. EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BATCH PROCESS VENTS

For each . . .	Then you must . . .	And you must . . .
1. Process with Group 1 batch process vents.	a. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥98 percent by weight by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of control devices (except a flare); or	Not applicable.
	b. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥95 percent by weight by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of recovery devices; or	Not applicable.
	c. For all batch process vents within the process that are not controlled by venting through a closed-vent system to a flare or to any other combination of control devices that reduce total organic HAP to an outlet concentration ≤20 ppmv as TOC or total organic HAP, reduce organic HAP emissions by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of recovery devices that reduce collective emissions by ≥95 percent by weight and/or any combination of control devices that reduce collective emissions by ≥98 percent by weight.	Not applicable.

TABLE 2 TO SUBPART FFFF OF PART 63. EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BATCH PROCESS VENTS—Continued

For each . . .	Then you must . . .	And you must . . .
2. Halogenated Group 1 batch process vent for which you use a combustion device to control organic HAP emissions.	a. Use a halogen reduction device after the combustion control device; or	i. Reduce overall emissions of hydrogen halide and halogen HAP by ≥99 percent; or ii. Reduce overall emissions of hydrogen halide and halogen HAP to ≤0.45 kg/hr; or iii. Reduce overall emissions of hydrogen halide and halogen HAP to a concentration ≤20 ppmv.
	b. Use a halogen reduction device before the combustion control device.	Reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

As required in § 63.2465, you must meet each emission limit in the following table that applies to your process vents that contain hydrogen halide and halogen HAP emissions or PM HAP emissions:

TABLE 3 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS FOR HYDROGEN HALIDE AND HALOGEN HAP EMISSIONS OR PM HAP EMISSIONS FROM PROCESS VENTS

For each . . .	You must . . .
1. Process with uncontrolled hydrogen halide and halogen HAP emissions from process vents ≥1,000 lb/yr.	Reduce collective hydrogen halide and halogen HAP emissions by ≥99 percent by weight or to an outlet concentration <20 ppmv by venting through a closed-vent system to any combination of control devices.
2. Process at a new source with uncontrolled PM HAP emissions from process vents ≥400 lb/yr.	Reduce overall PM HAP emissions by ≥97 percent by weight.

As required in § 63.2470, you must meet each emission limit in the following table that applies to your storage tanks:

TABLE 4 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS FOR STORAGE TANKS

For each . . .	For which . . .	Then you must . . .
1. Group 1 storage tank	a. The maximum true vapor pressure of total HAP at the storage temperature is ≥76.6 kilopascals.	i. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or ii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or iii. Reduce total HAP emissions by venting emissions to a fuel gas system or process.
	b. The maximum true vapor pressure of total HAP at the storage temperature is ≤76.6 kilopascals.	i. Comply with the requirements of subpart WW of this part, except as specified in § 63.2470; or ii. Reduce total HAP emissions by ≥95 percent by weight or to <20 ppmv of TOC or organic HAP and <20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or iii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or iv. Reduce total HAP emissions by venting emissions to a fuel gas system or process.
2. Halogenated vent stream from a Group 1 storage tank.	You use a combustion control device to control organic HAP emissions.	Meet one of the emission limit options specified in Item 2.a.i or ii. in Table 1 to this subpart.

As required in § 63.2475, you must meet each emission limit and work practice standard in the following table that applies to your transfer racks:

TABLE 5 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR TRANSFER RACKS

For each . . .	You must . . .
1. Group 1 transfer rack	a. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or

TABLE 5 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR TRANSFER RACKS—Continued

For each . . .	You must . . .
2. Halogenated Group 1 transfer rack vent stream for which you use a combustion device to control organic HAP emissions.	b. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a flare; or c. Reduce emissions of total organic HAP by venting emissions to a fuel gas system or process; or d. Use a vapor balancing system designed and operated to collect organic HAP vapors displaced from tank trucks and railcars during loading and route the collected HAP vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected by a common header. a. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, to ≤0.45 kg/hr, or to ≤20 ppmv; or b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

As required in § 63.2480, you must meet each requirement in the following table that applies to your equipment leaks:

TABLE 6 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR EQUIPMENT LEAKS

For all . . .	And that is part of . . .	You must . . .
1. Equipment that is in organic HAP service at an existing source.	a. An MCPU with no continuous process vents.	i. Comply with the requirements of subpart TT of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or iii. Comply with the requirements of 40 CFR part 65, subpart F.
	b. An MCPU with at least one continuous process vent.	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.
2. Equipment that is in organic HAP service at a new source.	a. Any MCPU	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.

As required in § 63.2485, you must meet each requirement in the following table that applies to your wastewater streams and liquid streams in open systems within an MCPU:

TABLE 7 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR WASTEWATER STREAMS AND LIQUID STREAMS IN OPEN SYSTEMS WITHIN AN MCPU

For each . . .	You must . . .
1. Process wastewater stream	Comply with the requirements in §§ 63.132 through 63.148 and the requirements referenced therein, except as specified in § 63.2485.
2. Maintenance wastewater stream	Comply with the requirements in § 63.105 and the requirements referenced therein, except as specified in § 63.2485.
3. Liquid streams in an open system within an MCPU.	Comply with the requirements in § 63.149 and the requirements referenced therein, except as specified in § 63.2485.

As specified in § 63.2485, the partially soluble HAP in wastewater that are subject to management and treatment requirements in this subpart FFFF are listed in the following table:

TABLE 8 TO SUBPART FFFF OF PART 63.—PARTIALLY SOLUBLE HAZARDOUS AIR POLLUTANTS

Chemical name . . .	CAS No.
1. 1,1,1–Trichloroethane (methyl chloroform)	71556
2. 1,1,2,2–Tetrachloroethane	79345
3. 1,1,2–Trichloroethane	79005
4. 1,1–Dichloroethylene (vinylidene chloride)	75354
5. 1,2–Dibromoethane	106934
6. 1,2–Dichloroethane (ethylene dichloride)	107062
7. 1,2–Dichloropropane	78875
8. 1,3–Dichloropropene	542756
9. 2,4,5–Trichlorophenol	95954
10. 2–Butanone (MEK)	78933
11. 1,4–Dichlorobenzene	106467

TABLE 8 TO SUBPART FFFF OF PART 63.—PARTIALLY SOLUBLE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name . . .	CAS No.
12. 2–Nitropropane	79469
13. 4–Methyl-2-pentanone (MIBK)	108101
14. Acetaldehyde	75070
15. Acrolein	107028
16. Acrylonitrile	107131
17. Allyl chloride	107051
18. Benzene	71432
19. Benzyl chloride	100447
20. Biphenyl	92524
21. Bromoform (tribromomethane)	75252
22. Bromomethane	74839
23. Butadiene	106990
24. Carbon disulfide	75150
25. Chlorobenzene	108907
26. Chloroethane (ethyl chloride)	75003
27. Chloroform	67663
28. Chloromethane	74873
29. Chloroprene	126998
30. Cumene	98828
31. Dichloroethyl ether	111444
32. Dinitrophenol	51285
33. Epichlorohydrin	106898
34. Ethyl acrylate	140885
35. Ethylbenzene	100414
36. Ethylene oxide	75218
37. Ethylidene dichloride	75343
38. Hexachlorobenzene	118741
39. Hexachlorobutadiene	87683
40. Hexachloroethane	67721
41. Methyl methacrylate	80626
42. Methyl-t-butyl ether	1634044
43. Methylene chloride	75092
44. N-hexane	110543
45. N,N-dimethylaniline	121697
46. Naphthalene	91203
47. Phosgene	75445
48. Propionaldehyde	123386
49. Propylene oxide	75569
50. Styrene	100425
51. Tetrachloroethylene (perchloroethylene)	79345
52. Tetrachloromethane (carbon tetrachloride)	56235
53. Toluene	108883
54. Trichlorobenzene (1,2,4-)	120821
55. Trichloroethylene	79016
56. Trimethylpentane	540841
57. Vinyl acetate	108054
58. Vinyl chloride	75014
59. Xylene (m)	108383
60. Xylene (o)	95476
61. Xylene (p)	106423

As specified in § 63.2485, the soluble HAP in wastewater that are subject to management and treatment requirements of this subpart FFFF are listed in the following table:

TABLE 9 TO SUBPART FFFF OF PART 63.—SOLUBLE HAZARDOUS AIR POLLUTANTS

Chemical name . . .	CAS No.
1. Acetonitrile	75058
2. Acetophenone	98862
3. Diethyl sulfate	64675
4. Dimethyl hydrazine (1,1)	58147
5. Dimethyl sulfate	77781
6. Dinitrotoluene (2,4)	121142
7. Dioxane (1,4)	123911
8. Ethylene glycol dimethyl ether	
9. Ethylene glycol monobutyl ether acetate	
10. Ethylene glycol monomethyl ether acetate	

TABLE 9 TO SUBPART FFFF OF PART 63.—SOLUBLE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name . . .	CAS No.
11. Isophorone	78591
12. Methanol	67561
13. Nitrobenzene	98953
14. Toluidine (o-)	95534
15. Triethylamine	121448

As required in § 63.2490, you must meet each requirement in the following table that applies to your heat exchange systems:

TABLE 10 TO SUBPART FFFF OF PART 63.—WORK PRACTICE STANDARDS FOR HEAT EXCHANGE SYSTEMS

For each . . .	You must . . .
Heat exchange system, as defined in § 63.101	Comply with the requirements of § 63.104 and the requirements referenced therein, except as specified in § 63.2490.

As required in § 63.2520(a) and (b), you must submit each report that applies to you on the schedule shown in the following table:

TABLE 11 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR REPORTS

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Precompliance report	The information specified in § 63.2520(c).	At least 6 months prior to the compliance date; or for new sources, with the application for approval of construction or reconstruction.
2. Notification of compliance status report.	The information specified in § 63.2520(d).	No later than 150 days after the compliance date specified in § 63.2445.
3. Compliance report	The information specified in § 63.2520(e).	Semiannually according to the requirements in § 63.2520(b).

As specified in § 63.2540, the parts of the General Provisions that apply to you are shown in the following table:

TABLE 12 TO SUBPART FFFF OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFF

Citation	Subject	Explanation
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes.
§ 63.3	Units and Abbreviations	Yes.
§ 63.4	Prohibited Activities	Yes.
§ 63.5	Construction/Reconstruction	Yes.
§ 63.6(a)	Applicability	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Yes.
§ 63.6(b)(5)	Notification	Yes.
§ 63.6(b)(6)	[Reserved].	
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Yes.
§ 63.6(c)(3)–(4)	[Reserved].	
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Yes
§ 63.6(d)	[Reserved].	
§ 63.6(e)(1)–(2)	Operation & Maintenance	Yes.
§ 63.6(e)(3)(i), (ii), and (v) through (viii).	Startup, Shutdown, Malfunction Plan (SSMP)	Yes, except information regarding Group 2 emission points and equipment leaks is not required in the SSMP, as specified in § 63.2525(j).
§ 63.6(e)(3)(iii) and (iv)	Recordkeeping and Reporting During SSM	No, § 63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify the recordkeeping requirement for SSM events, and § 63.2520(e)(4) specifies reporting requirements.
§ 63.6(f)(1)	Compliance Except During SSM	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.
§ 63.6(g)(1)–(3)	Alternative Standard	Yes.

TABLE 12 TO SUBPART FFFF OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFF—Continued

Citation	Subject	Explanation
§ 63.6(h)	Opacity/Visible Emission (VE) Standards	Only for flares for which Method 22 observations are required as part of a flare compliance assessment.
§ 63.6(i)(1)–(14)	Compliance Extension	Yes.
§ 63.6(j)	Presidential Compliance Exemption	Yes.
§ 63.7(a)(1)–(2)	Performance Test Dates	Yes, except substitute 150 days for 180 days.
§ 63.7(a)(3)	Section 114 Authority	Yes, and this paragraph also applies to flare compliance assessments as specified under § 63.997(b)(2).
§ 63.7(b)(1)	Notification of Performance Test	Yes.
§ 63.7(b)(2)	Notification of Rescheduling	Yes.
§ 63.7(c)	Quality Assurance/Test Plan	Yes, except the test plan must be submitted with the notification of the performance test if the control device controls batch process vents.
§ 63.7(d)	Testing Facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests	Yes, except that performance tests for batch process vents must be conducted under worst-case conditions as specified in § 63.2460.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests	Yes.
§ 63.7(e)(3)	Test Run Duration	Yes.
§ 63.7(f)	Alternative Test Method	Yes.
§ 63.7(g)	Performance Test Data Analysis	Yes.
§ 63.7(h)	Waiver of Tests	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Yes.
§ 63.8(a)(2)	Performance Specifications	Yes.
§ 63.8(a)(3)	[Reserved].	
§ 63.8(a)(4)	Monitoring with Flares	Yes.
§ 63.8(b)(1)	Monitoring	Yes.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance	Yes.
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Yes.
§ 63.8(c)(1)(ii)	SSM not in SSMP	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Yes.
§ 63.8(c)(4)	CMS Requirements	No. CMS requirements are specified in referenced subparts G and SS of this part 63.
§ 63.8(c)(4)(i)–(ii)		Only for the alternative standard, but § 63.8(c)(4)(i) does not apply because the alternative standard does not require continuous opacity monitoring systems (COMS).
§ 63.8(c)(5)	COMS Minimum Procedures	No. Subpart FFFF does not contain opacity or VE limits.
§ 63.8(c)(6)	CMS Requirements	Only for the alternative standard in § 63.2505.
§ 63.8(c)(7)–(8)	CMS Requirements	Only for the alternative standard in § 63.2505. Requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§ 63.8(d)	CMS Quality Control	Only for the alternative standard in § 63.2505.
§ 63.8(e)	CMS Performance Evaluation	Only for the alternative standard in § 63.2505, but § 63.8(e)(5)(ii) does not apply because the alternative standard does not require COMS.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Yes, except you may also request approval using the precompliance report.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Only applicable when using CEMS to demonstrate compliance, including the alternative standard in § 63.2505.
§ 63.8(g)(1)–(4)	Data Reduction	Only when using CEMS, including for the alternative standard in § 63.2505, except that the requirements for COMS do not apply because subpart FFFF has no opacity or VE limits, and § 63.8(g)(2) does not apply because data reduction requirements for CEMS are specified in § 63.2450(j).
§ 63.8(g)(5)	Data Reduction	No. Requirements for CEMS are specified in § 63.2450(j). Requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§ 63.9(a)	Notification Requirements	Yes.
§ 63.9(b)(1)–(5)	Initial Notifications	Yes.
§ 63.9(c)	Request for Compliance Extension	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	Yes.
§ 63.9(e)	Notification of Performance Test	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	No. Subpart FFFF does not contain opacity or VE limits.

TABLE 12 TO SUBPART FFFF OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFF—Continued

Citation	Subject	Explanation
§ 63.9(g)	Additional Notifications When Using CMS	Only for the alternative standard in § 63.2505.
§ 63.9(h)(1)–(6)	Notification of Compliance Status	Yes, except subpart FFFF has no opacity or VE limits, and § 63.9(h)(2) does not apply because § 63.2520(d) specifies the required contents and due date of the notification of compliance status report.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.
§ 63.9(j)	Change in Previous Information	No, § 63.2520(e) specifies reporting requirements for process changes.
§ 63.10(a)	Recordkeeping/Reporting	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	Yes.
§ 63.10(b)(2)(i)–(ii), (iv), (v)	Records related to SSM	No, §§ 63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify recordkeeping requirements for periods of SSM.
§ 63.10(b)(2)(iii)	Records related to maintenance of air pollution control equipment.	Yes.
§ 63.10(b)(2)(vi), (x), and (xi)	CMS Records	Only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§ 63.10(b)(2)(vii)–(ix)	Records	Yes.
§ 63.10(b)(2)(xii)	Records	Yes.
§ 63.10(b)(2)(xiii)	Records	Only for the alternative standard in § 63.2505.
§ 63.10(b)(2)(xiv)	Records	Yes.
§ 63.10(b)(3)	Records	Yes.
§ 63.10(c)(1)–(6), (9)–(15)	Records	Only for the alternative standard in § 63.2505.
§ 63.10(c)(7)–(8)	Records	No. Recordkeeping requirements are specified in § 63.2525.
§ 63.10(d)(1)	General Reporting Requirements	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	No. Subpart FFFF does not contain opacity or VE limits.
§ 63.10(d)(4)	Progress Reports	Yes.
§ 63.10(d)(5)(i)	Periodic Startup, Shutdown, and Malfunction Reports	No, § 63.2520(e)(4) and (5) specify the SSM reporting requirements.
§ 63.10(d)(5)(ii)	Immediate SSM Reports	No.
§ 63.10(e)(1)–(2)	Additional CMS Reports	Only for the alternative standard, but § 63.10(e)(2)(ii) does not apply because the alternative standard does not require COMS.
§ 63.10(e)(3)	Reports	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(3)(i)–(iii)	Reports	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(3)(vi)–(viii)	Excess Emissions Report and Summary Report	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(4)	Reporting COMS data	No. Subpart FFFF does not contain opacity or VE limits.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Yes.
§ 63.11	Flares	Yes.
§ 63.12	Delegation	Yes.
§ 63.13	Addresses	Yes.
§ 63.14	Incorporation by Reference	Yes.
§ 63.15	Availability of Information	Yes.

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