ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD–FRL–5516–7]

RIN 2060–AE05

National Emission Standards for Hazardous Air Pollutants: Off-Site Waste and Recovery Operations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates National Emission Standards for Hazardous Air Pollutants (NESHAP) under the authority of Section 112 of the Clean Air Act for off-site waste and recovery operations that emit hazardous air pollutants (HAP). The NESHAP applies to specific types of facilities that are determined to be major sources of HAP emissions and receive certain wastes, used oil, and used solvents from off-site locations for storage, treatment, recovery, or disposal at the facility. The rule requires use of maximum achievable control technology (MACT) to reduce HAP emissions from tanks, surface impoundments, containers, oil-water separators, individual drain systems and other material conveyance systems, process vents, and equipment leaks.

The final rule is estimated to reduce HAP emissions from the source category by approximately 82 percent or 43,000 megagrams per year (47,000 tons per year). In addition, application of MACT required by this rule will achieve similar levels of reduction in volatile organic compounds (VOC) emissions from the source category. The human health effects associated with exposure to the HAP emissions can range from mild to severe and may include reduction of lung function, respiratory irritation, and neurotoxic effects. Similarly, emissions of VOC are associated with a variety of adverse health and welfare impacts.

The HAP and VOC emissions reductions achieved by implementing this rule in combination with similar rules will achieve the primary Clean Air Act goal to ''enhance the quality of the Nation's air resources so as to promote the public health and welfare and productive capacity of its population.'' The intent of this final rule is to protect public health by requiring the maximum degree of reduction of HAP emissions from new and existing sources, taking into consideration the cost of achieving such emission reduction; any non air quality, health, and environmental impacts; and energy requirements.

EFFECTIVE DATE: July 1, 1996. See the Supplementary Information section concerning judicial review.

ADDRESSES: *Docket.* The docket for this rulemaking containing the information considered by the EPA in development of the final rule is Docket No. A–92–16. This docket is available for public inspection between 8:00 a.m. and 4:00 p.m., Monday through Friday except for Federal holidays, at the following address: U.S. Environmental Protection Agency, Air and Radiation Docket and Information Center (MC–6102), 401 M Street SW, Washington, D.C. 20460; telephone: (202) 260–7548. The docket is located at the above address in Room M–1500, Waterside Mall (ground floor). A reasonable fee may be charged for copying.

Basis and Support Document. A basis and support document, titled ''National Emission Standards for Hazardous Air Pollutants, Off-Site Waste and Recovery Operations—Basis and Support for Final Standards,'' has been prepared summarizing the significant public comments made on the proposed rule and the Administrator's response to those comments. This document is available in the docket for this rulemaking, and also is available for downloading from the Technology Transfer Network (see below) under the Clean Air Act Amendments, Recently Signed Rules.

Technology Transfer Network. The Technology Transfer Network is one of the EPA's electronic bulletin boards. The Technology Transfer Network provides information and technology exchange in various areas of air pollution control. The service is free except for the cost of a phone call. Dial (919) 541–5472 for up to a 14,400 bps modem. If more information on the Technology Transfer Network is needed call the HELP line at (919) 541–5384.

FOR FURTHER INFORMATION CONTACT: For information concerning applicability and rule determinations, contact the appropriate regional representative:

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Region II: Kenneth Eng, Air Compliance Branch Chief, U.S. EPA, Region II, 290 Broadway, New York, NY 10007–1866, (212) 637–4000

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Region IV: Jewell A. Harper, Air Enforcement Branch, U.S. EPA, Region IV, 345 Courtland Street, N.E., Atlanta, GA 30365, (404) 347–2904

Region V: George T. Czerniak, Jr., Air Enforcement Branch Chief, U.S. EPA, Region V, 5AE–26, 77 West Jackson Street, Chicago, IL 60604, (312) 353–2088

Region VI: John R. Hepola, Air Enforcement Branch Chief, U.S. EPA, Region VI, 1445 Ross Avenue, Suite 1200, Dallas, TX 75202–2733, (214) 655–7220

Region VII: Royan Teeter, Air Planning and Development Branch, U.S. EPA, Region VII, 726 Minnesota Avenue, Kansas City, KS 66101, (913) 551–7609

Region VIII: Douglas M. Skie, Air and Technical Operations Branch Chief, U.S. EPA, Region VIII, 999 18th Street, Suite 500, Denver, CO 80202–2466, (303) 312–6432

Region IX: Colleen W. McKaughan, Air Compliance Branch Chief, U.S. EPA, Region IX, 75 Hawthorne Street, San Francisco, CA, (415) 744–1198

Region X: Chris Hall, Air and Radiation Branch, U.S. EPA, Region X, OAQ–107, 1200 Sixth Avenue, Seattle, WA 98101, (206) 553–1949

For information concerning the analyses performed in developing this rule, contact Ms. Michele Aston, Waste and Chemical Processes Group, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711, telephone number (919) 541–2363.

SUPPLEMENTARY INFORMATION:

Regulated Entities

Entities potentially regulated by this action include the following types of facilities if the facility receives off-site material, as defined in the rule, and the facility is determined to be a major source of HAP emissions as defined in 40 CFR 63.2.

Category	Examples of regulated entities
Industry	Businesses that operate any of the following: hazardous waste treatment, storage, and disposal facilities (TSDF); RCRA exempt hazardous wastewater treatment facilities; nonhazardous wastewater treatment facilities other than publicly-owned treatment works; used solvent recovery plants; RCRA exempt hazardous waste recycling operations; used oil re-refineries.
Federal Government	Federal agency facilities that operate any of the waste management or recovery operations that meet the description of the entities listed under the ''Industry'' category in this table.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated by the action, you should carefully examine the applicability criteria in § 63.680 of the rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Judicial Review

The NESHAP for off-site waste and recovery operations was proposed in the Federal Register on October 13, 1994 (59 FR 51913). This Federal Register action announces the EPA's final decisions on the rule. Under section 307(b)(1) of the Act, judicial review of the NESHAP is available only by the petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this final rule. Under section 307(b)(2) of the Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

The following outline is provided to aid in reading this preamble to the final rule.

I. Background

A. Section 112 Statutory Requirements

Section 112 of the Clean Air Act (Act) regulates stationary sources of hazardous air pollutants (HAP). This section of the Act was comprehensively amended under Title III of the 1990 Amendments to the Clean Air Act (1990 Amendments). In the 1990 Amendments, Congress listed 189 chemicals, compounds, or groups of chemicals as HAP. The EPA is directed by the 1990 Amendments to regulate the emission of these HAP from stationary sources by establishing national emission standards (i.e., National Emission Standards for Hazardous Air Pollutants or NESHAP).

Each NESHAP for a specific source category is technology-based and is developed based on application of Maximum Achievable Control Technology (MACT). Section 112(d)(2) of the 1990 Amendments defines MACT as ''* * * the maximum degree of reduction in emissions of the HAP * * * that the Administrator, taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources in the category or subcategory to which such emission standard applies * * *.''

B. Listing of Source Category

Section 112(c) of the 1990 Amendments required the EPA to develop and publish a list of source categories that emit HAP for which NESHAP will be developed. This list is required under Section 112 to include all known categories and subcategories of ''major sources.'' The term ''major source'' is defined by the Act to mean ''any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, considering controls, in the aggregate 10 tons per year (ton/yr) or more of any HAP or 25 ton/yr or more of any combination of HAP.''

The EPA published its initial list of HAP emission source categories in the Federal Register on July 16, 1992 (57 FR 31576). On this list, the EPA included one source category which the Agency intended to represent those waste management and recovery operations that would not be subject to air standards under other listed NESHAP source categories. This source category was titled on the initial list as ''solid waste treatment, storage, and disposal facilities.'' After publication of the initial source category list, the EPA decided that it was appropriate to change the title of the NESHAP source category to better reflect the types of operations for which the EPA intended to establish air standards under a NESHAP for the source category. Therefore at proposal, the EPA changed the title of the source category subject to ''off-site waste and recovery operations'' (see 59 FR 51918, October 13, 1994).

For the purpose of developing the rules for this source category, the term ''off-site'' is used in the context that the source category represents those waste management and recovery operations which receive material delivered, transferred, or otherwise moved to the plant or facility where the operation is located from a separate site. In other words, the material placed in the waste management or recovery operation is not produced or generated at the same site where the operation is located.

C. Summary of Public Participation in Rule Development

The EPA published an advance notice of proposed rulemaking (ANPR) in the Federal Register on December 20, 1993 (58 FR 66336) to inform owners and operators of the potentially affected waste management and recovery operations and the general public of the planned scope of this NESHAP rulemaking. In the ANPR, the EPA requested information that would aid the Agency in the development of the rule. A 30-day comment period, from December 20, 1993 to January 19, 1994 was provided for interested parties to submit comments on the ANPR. The comments received by the EPA were

considered in developing the proposed rule.

The EPA proposed the Off-Site Waste and Recovery Operations NESHAP on October 13, 1994 (refer to 59 FR 51913). A proposed regulatory text for the rule and the background information document (BID) (EPA–453/R–94–070a) that presented information used in the development of the proposed rule was made available to the public for review and comment. A 90-day comment period from October 13, 1994 to January 11, 1995 (an initial 60 days plus a 30-day extension) was provided to accept written comments from the public on the proposed rule. The opportunity for a public hearing was provided to allow interested persons to present oral comments to the EPA on the rulemaking. However, the EPA did not receive a request for a public hearing, so a public hearing was not held.

A total of 89 comment letters regarding the proposed Off-Site Waste and Recovery Operations NESHAP were received by the EPA. A copy of each comment letter is available for public inspection in the docket for the rulemaking (Docket No. A–92–16; see the **ADDRESSES** section of this notice for information on inspecting the docket). The EPA received 70 letters containing specific comments on the proposed Off-Site Waste and Recovery Operations NESHAP. The other 19 letters were regarding extension of the public comment period and requests for copies of the regulatory text. The EPA has had extensive follow-up discussions with various commenters regarding specific issues initially raised in their written comments that were submitted to the Agency during the comment period. Copies of correspondence and other information exchanged between the EPA and the commenters during the post-comment period are available for public inspection in the docket for the rulemaking.

All of the comments received by the EPA were reviewed and carefully considered by the Agency. Changes to the rule were made when the EPA determined it to be appropriate. A summary of the EPA's responses to selected major comments on the proposed rule is presented in Section IV of this notice. Additional responses to comments are presented in the basis and support document described in the **ADDRESSES** section of this notice.

D. Relationship of Rule to Other EPA Regulatory Actions

1. Clean Air Act

Owners and operators of sites at which are located waste management and recovery operations that are subject to Off-Site Waste and Recovery Operations NESHAP may also be subject to another NESHAP because of other operations conducted at the site. For example, a waste management or recovery operation receiving materials from off-site may be located at a synthetic organic chemical manufacturing plant that is subject to 40 CFR 63 subparts F, G, and H—National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (referred to hereafter in this notice as the ''HON'') or at a petroleum refinery that is subject to 40 CFR 63 subpart CC—National Emission Standards for Organic Hazardous Air Pollutants from Petroleum Refineries. At plants subject to both the Off-Site Waste and Recovery Operations NESHAP and another NESHAP, the Off-Site Waste and Recovery Operations NESHAP applies only to those specific waste management or recovery operations listed in the rule that receive off-site material. The Off-Site Waste and Recovery Operations NESHAP does not apply to other units or equipment components at the site that are not part of the waste management and recovery operations specified in the rule.

Some NESHAP already regulate air emissions from the off-site management of certain wastes containing HAP. To avoid duplication of requirements in these cases, the Off-Site Waste and Recovery Operations NESHAP does not apply to waste management units that either receive waste from units complying with all applicable regulations under the HON, or receive waste from units complying with all applicable requirements specified by § 61.342(b) under 40 CFR 61 subpart FF—National Emission Standards for Benzene Waste Operations for a plant at which the total annual benzene quantity is greater than or equal to 10 Mg/yr.

2. Resource Conservation and Recovery Act

The EPA establishes rules for the management of solid wastes under authority of the Resource Conservation and Recovery Act (RCRA). Under authority of subtitle C of RCRA, the EPA has established rules in 40 CFR parts 260 through 271 regulating the management of solid wastes determined to be hazardous waste. Municipal solid wastes and other types of nonhazardous solid wastes are regulated by rules established under authority of subtitle D of RCRA in 40 CFR Parts 257 and 258.

The Clean Air Act requires that the requirements of rules developed under the Act be consistent, but avoid duplication, with requirements of rules developed under RCRA. The final Off-Site Waste and Recovery Operations NESHAP includes several provisions to ensure that this directive of the Act is met. First, certain types of wastes regulated under RCRA are excluded outright from the definition of ''off-site material'' used to determine the applicability of the Off-Site Waste and Recovery Operation NESHAP. These wastes include household waste as defined in 40 CFR 258.2; waste that is generated by remedial activities required under the RCRA corrective action authorities (RCRA section 3004(u), 3004(v), or 3008(h)), CERCLA authorities, or similar Federal or State authorities; and radioactive mixed waste.

The EPA also is fully aware that at some sites managing hazardous wastes not generated onsite, the owner and operator of a hazardous waste treatment, storage, and disposal facility (TSDF) could be subject to both the Off-Site Waste and Recovery Operations NESHAP and RCRA air rules under subparts AA, BB, and CC of 40 CFR parts 264 and 265. At a particular TSDF, some waste management units may be required to use air emission controls under one or the other, but not both, the Off-Site Waste and Recovery Operations NESHAP and the RCRA rules. However, some other waste management units could be subject to using air emission controls to comply with both sets of rules. It is unnecessary for owners and operators of those waste management units subject to air standards under both sets of rules to perform duplicative testing and monitoring, keep duplicate sets of records, or perform other duplicative actions. The EPA has decided that the best way to eliminate any regulatory overlap is to amend the RCRA rules to exempt units that are using air emission controls in accordance with the requirements of Off-Site Waste and Recovery Operations NESHAP or any other applicable NESHAP. The EPA therefore plans to amend the RCRA rules this summer and expects that these revisions will be finalized prior to the effective dates of both rules.

3. Pollution Prevention Act

The Pollution Prevention Act of 1990 (42 U.S.C. 13101 et seq., Pub. L. 101–508, November 5, 1990) establishes the national policy of the United States for pollution prevention. This act declares that: (1) Pollution should be prevented or reduced whenever feasible; (2) pollution that cannot be prevented or reduced should be recycled or reused in

an environmentally-safe manner wherever feasible; (3) pollution that cannot be recycled or reused should be treated; and (4) disposal or release into the atmosphere should be chosen only as a last resort.

Opportunities for applying pollution prevention to the Off-Site Waste and Recovery Operations NESHAP are basically limited to treatment to remove HAP (e.g., treatment of waste prior to its disposal). The off-site waste and recovery operations source category consists only of operations used to manage certain materials that have already been generated at other locations such as a manufacturing plant. Thus, there are no pollution prevention practices such as modifying the manufacturing process to reduce the quantity of HAP contained in materials or to recycle the materials back to the process which can be implemented once the material arrives at a site at which waste management and recovery operations subject to the NESHAP are located. The EPA has incorporated the pollution prevention policy into the NESHAP by requiring off-site materials be treated to remove or destroy HAP prior to management in units open directly to the environment. Thus, to the extent possible, pollution prevention has been considered in the development of this rulemaking. The Off-Site Waste and Recovery Operations NESHAP is consistent with the pollution prevention policy.

II. Basis and Purpose

A. Purpose of Regulation

The Clean Air Act 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 its population'' [Act section 101(b)(1)]. Title III of the 1990 Amendments establishes a control technology-based program to reduce stationary source emissions of HAP. The goal of section 112(d) of the 1990 Amendments is to apply such control technology to reduce emissions and thereby reduce the hazard of the HAP emitted from stationary sources.

This final rule is technology-based (i.e., based on application of MACT to off-site waste and recovery operations). The Clean Air Act strategy avoids the dependence on a risk-based approach which would be limited by incomplete information on what HAP are emitted, what level of emissions is occurring, what health and safety benchmarks are available to assess risk, what health effects may be caused by certain pollutants and how best to model these effects, among other things. Because of these issues a quantitative risk assessment of the potential effects from the HAP emitted from off-site waste and recovery operations is not included in this rulemaking.

The EPA does recognize that the degree of adverse effects to health can range from mild to severe. The extent and degree to which the health effects may be experienced is dependent upon: (1) The ambient concentrations observed in the area; (2) duration of exposures; and (3) characteristics of exposed individuals (e.g., genetics, age, preexisting health conditions, and lifestyle) which vary significantly with the population. Some of these factors are also influenced by source-specific characteristics (e.g., emission rates and local meteorological conditions) as well as pollutant specific characteristics such as toxicity.

On a nationwide basis, the off-site waste and recovery operations at the facilities regulated by this rule emit significant quantities of organic HAP. Implementation of Off-Site Waste and Recovery Operations NESHAP will result in substantial reductions of these organic HAP emissions to the atmosphere. The final Off-Site Waste and Recovery Operations NESHAP will require control of material streams containing 1 or more of 98 specified compounds listed in Table 1 of the rule. This table is subset of the 189 HAP compounds listed in the Clean Air Act. Following is a summary of the potential health and environmental effects associated with exposures, at some level, to the emitted pollutants that would be reduced by this NESHAP.

The range of potential human health effects associated with exposure to organic HAP include cancer, aplastic anemia, pulmonary (lung) structural changes, dyspnea (difficulty in breathing), upper respiratory tract irritation with cough, conjunctivitis, and neurotoxic effects (e.g., visual blurring, tremors, delirium, unconsciousness, coma, convulsions). The EPA estimates that implementation of the Off-Site Waste and Recovery Operations NESHAP will reduce nationwide organic HAP emissions by approximately 43,000 megagrams per year (Mg/yr). Thus, this rule has the potential for providing both cancer and noncancer related health benefits.

By requiring facilities to reduce organic HAP emitted from off-site waste and recovery operations, today's rule will also reduce emissions of volatile organic compounds (VOC). Many VOC react photochemically with nitrogen oxides in the atmosphere to form tropospheric ozone. A number of factors affect the degree to which VOC emission reductions will reduce ambient ozone concentrations.

Human laboratory and community studies have shown that exposure to tropospheric ozone levels that exceed the National Ambient Air Quality Standards (NAAQS) can result in various adverse health impacts such as alterations in lung capacity; eye, nose, and throat irritation; and aggravation of existing respiratory disease. Animal studies have shown increased susceptibility to respiratory infection and lung structure changes.

Among the welfare impacts from exposure to tropospheric ozone levels that exceed the ozone NAAQS are damage to selected commercial timber species and economic losses for commercially valuable crops such as soybeans and cotton. Studies have shown that exposure to ozone can disrupt carbohydrate production and distribution in plants. The reduction in carbohydrate production and allocation can lead to reduced root growth, reduced biomass or yield, reduced plant vigor (which can cause increased susceptibility to attack from insects and disease and damage from cold) and diminished ability to successfully compete with more tolerant species. These effects have been observed in native vegetation in natural ecosystems as well as for selected number of commercial trees and agricultural crops that have been studied.

Although the final Off-Site Waste and Recovery Operations NESHAP does not specifically require control of VOC emissions, the organic emission control technologies upon which the final rule is based also significantly reduce VOC emissions from the source category. The EPA conservatively estimates that implementation of the Off-Site Waste and Recovery Operations NESHAP will reduce nationwide VOC emissions from the source category by 52,000 Mg/yr. Therefore, it is anticipated that additional health and welfare benefits will be associated with this reduction in VOC emissions.

B. Source Category Description

The final Off-Site Waste and Recovery Operations NESHAP only applies to certain waste management and recovery operations at those sites determined to ''major sources'' as defined in section 112(a)(1) of the 1990 Amendments. This means those plants or facilities where the stationary sources located within a contiguous area and under common control emit or have the potential to emit, considering controls, in total 10 ton/yr or more of any single HAP or 25 ton/yr or more of any combination of

HAP. Waste management and recovery operations receiving materials from off-site that are located at plants or facilities which are area sources are not being regulated at this time. These area sources could be considered at a future date by the EPA for regulation as part of the area source strategy authorized under section 112(k) of the Act.

At proposal, the EPA identified the types of waste management and recovery operations the Agency was considering for inclusion in the off-site waste and recovery operations source category. In response to public comments on the proposed rule and considering decisions made by the Agency since proposal regarding other related rulemakings, the EPA has reconsidered the types of waste management and recovery operations to be regulated under the Off-Site Waste and Recovery Operations NESHAP. The EPA reviewed information used for the source category impact analysis at proposal and evaluated new information provided to the Agency since proposal by commenters. As a result of this review, the EPA decided that the final Off-Site Waste and Recovery Operations NESHAP should not apply to owners and operators of certain operations originally considered to be in the scope of the rulemaking. The rationale for including or excluding specific waste management or recovery operations in the final rule applicability is presented below.

Facilities where operations are conducted to treat, store, and dispose of wastes determined to be hazardous wastes under RCRA may be subject to organic air emission standards under 40 CFR parts 264 and 265. At these facilities, referred to under the RCRA rules as a hazardous waste treatment, storage, and disposal facility (TSDF), a RCRA hazardous waste may be generated at the same site where a TSDF is located, or may be generated at one site and then transported to a TSDF at a separate location. At TSDF where RCRA hazardous waste is received from off-site, certain types of waste management units such as wastewater treatment tanks and hazardous waste recycling units can be exempted from the air standards specified in 40 CFR parts 264 and 265. Many (but not all) TSDF are expected by the EPA to be located at sites that are major sources of HAP emissions. Therefore, the EPA decided that the final Off-Site Waste and Recovery Operations NESHAP be applicable to hazardous waste TSDF as well as to sites where waste or recovery operations managing hazardous waste are performed and the entire operation is exempted under RCRA from the air standards in subparts AA, BB, and CC under 40 CFR parts 264 and 265.

Wastewater treatment facilities are operated by public entities and private companies throughout the United States for the treatment of wastewaters other than those that are RCRA hazardous wastewaters. Publicly owned treatment works (POTW) are not included in the off-site waste operations source category because POTW are listed as a separate NESHAP source category. A review of nationwide survey data by the EPA indicates that privately-owned wastewater treatment plants are operated at some locations in the United States for which the predominate function performed at the site is to treat wastewaters received from off-site. Although a wastewater may not be a RCRA hazardous waste, this wastewater can still contain significant quantities of HAP. The EPA concluded this group of wastewater treatment plants would not be subject to other NESHAP and would likely include some individual facilities that are major sources of HAP emissions.

Used oils from motor vehicles and other sources can contain HAP. While the management of used oils which are recycled is regulated by separate rules promulgated by the EPA under section 3014 of RCRA, these RCRA rules do not specifically establish air standards for used oil management operations. A major portion of the used oil is processed for sale as fuel for burning in boilers, furnaces, and space heaters. The remainder of the recycled used oil is sent to facilities categorized as ''used oil re-refiners.'' At these facilities the used oil is processed into base lube oil stocks and other products. The EPA determined that some used oil re-refining facilities are likely to be major sources of HAP emissions. Consequently, the EPA decided that the final Off-Site Waste and Recovery Operations NESHAP apply to operations that reprocess or re-refine used oil and are subject to regulation under 40 CFR 279 subpart F–Standards for Used Oil Processors and Refiners.

Another recovery operation analogous to used oil re-refining operations is solvent recovery operations. Organic solvents are used in many types of businesses to clean oils, grease, dirt, or other foreign matter from mechanical parts and like items. These used organic solvents are often collected and reprocessed by a company for re-sale as a product or for use by another company as a process feedstock. The EPA expects that some solvent recovery operations could be major sources of HAP emissions. Therefore, the EPA decided that the final Off-Site Waste and Recovery Operations NESHAP be applicable to operations that reprocess or re-refine used solvents except in situations where the operation is not part of a chemical, petroleum, or other manufacturing process that is required to use air emission controls by another subpart of 40 CFR part 63.

Many landfill facilities operated in the United States are used for disposal of waste received from off-site. Municipal solid waste (MSW) landfills are not included in the off-site waste and recovery operations source category because these facilities are listed as a separate NESHAP source category. However, other landfill facilities operate in the United States which are not MSW landfills and accept only nonhazardous wastes. It is the EPA's understanding that landfills used for disposal of construction/demolition debris do not accept wastes containing significant amounts of organic HAP. One commeter submitted to the EPA additional information regarding operations, waste characterizations, and HAP emission estimates from industrial waste landfills. The potential for some industrial waste landfills to be a major source is possible due to special circumstances (e.g., accepting predominately soils contaminated with organics). However, under current operating practices, the EPA concluded that it is unlikely that any of the existing industrial waste landfills nationwide is a major source of HAP emissions. Therefore, the EPA decided that the final Off-Site Waste and Recovery Operations NESHAP not be applicable to any landfill facilities.

Some wastes generated during oil and gas exploration and production (E&P) are subsequently transferred to operations at other locations for centralized treatment or disposal. At proposal, the EPA identified these centralized treatment and disposal operations as waste management operations that would be subject to the Off-Site Waste and Recovery Operations NESHAP. Additional information was received by the EPA from commenters on the proposed rule regarding the nature of E&P operations as presently practiced in oil and gas production fields. Upon further consideration, the EPA decided it is not necessary to include E&P waste operations under the final Off-Site Waste and Recovery Operations NESHAP. Instead, the EPA is planning to address these sources under the Oil and Gas Production NESHAP currently being developed by the Agency.

C. Definition of Affected Source

For the purpose of implementing NESHAP under 40 CFR Part 63, ''affected source'' is defined to mean the stationary source, or portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to section 112 of the Act. Each relevant standard is to designate the ''affected source'' for the purposes of that standard. Within a source category, the EPA decides which HAP emission sources (i.e., emission points or groupings of emission points) are most appropriate for establishing separate emission standards in the context of the Clean Air Act statutory requirements and the industry operating practices for the particular source category.

At proposal, the EPA considered different options for defining ''affected source'' for the Off-Site Waste and Recovery Operations NESHAP ranging from using a broad definition (e.g., the entire plant or facility site) to narrow definitions (e.g., individual emission points) (59 FR 51923). The EPA proposed using the narrowest definition of affected source for the Off-Site Waste and Recovery Operations NESHAP by defining the affected sources to be each of the individual emission point types identified for the rule (e.g., each individual tank). The EPA received comments that its proposed designation of affected source for the Off-Site Waste and Recovery Operations NESHAP was too restrictive and would complicate an owner's or operator's determination of when reconstruction of a source has occurred triggering the requirement to comply with the standards for new sources. Upon consideration of these comments, the EPA decided that using a broader definition is a more appropriate approach for defining the affected sources for the Off-Site Waste and Recovery Operations NESHAP.

Designating the affected source for the Off-Site Waste and Recovery Operations NESHAP as the entire plant site was rejected by the EPA. This approach would allow the MACT floor to be established by the plant-wide emission reduction indicative of the level that is achieved by the best performing 12 percent of the existing sources. Application of a single MACT floor to all of the emission points located at the plant site and selected for control under the Off-Site Waste and Recovery Operations NESHAP would be difficult, if not technically infeasible, for several reasons. First, the EPA's data base for the off-site waste and recovery operations NESHAP lacks sufficient data regarding the type of information required to implement this approach for the source category. Also, the mechanism by which organic HAP are emitted to the atmosphere and the types of controls relevant for reducing these air emissions is not the same for all of the emission point types identified for off-site waste and recovery operation source category. For example, covers frequently are installed on tanks to control air emissions while work practice programs are used to control air emissions from equipment leaks. Furthermore, not all waste management and recovery operations at a particular plant site may be subject to this rulemaking because they are not used to manage off-site material, as defined in the rule.

A second approach is to designate several different affected sources by grouping the similar emission points for each waste management and recovery operation used at the plant site to manage off-site materials. Under this approach, each affected source consists of the group of similar emission point types for the entire sequence of units or equipment components in which a particular off-site material is managed at the site. An example of such a group of emission points is the collection of tanks, containers, surface impoundments, and similar units that are used at a site to manage a waste from the point where the waste is received at the site to the point where the material enters an on-site disposal unit not regulated under this rule (e.g., waste incinerator, landfill unit). An individual MACT floor is established for the entire group of emission points comprising each designated affected source.

This second approach offers several advantages for implementing the Off-Site Waste and Recovery Operations NESHAP. Designating the affected source to be a group of similar emission point types ensures that air emission controls of equivalent performance are applied at the same time to all of the units used to manage a particular off-site material stream. In contrast, had the EPA maintained the proposed designation for the affected sources (i.e., each individual emission point), situations could have occurred where an owner or operator was required to use controls on a new tank (or other newly installed unit) downstream of existing tanks managing the same off-site material but not required to use air emission controls under the rule. This would be an inefficient application of air emission controls since a significant portion of the HAP contained in the off-site material likely would have escaped to the atmosphere before the material entered the controlled unit. The approach also provides a logical grouping of equipment by which an owner or operator readily can determine when reconstruction of the affected source triggers the air emission control requirements under the rule for new sources. Therefore, for the final off-site waste and recovery operations NESHAP, the EPA decided to designate the affected sources by three distinct groups of the emission point types for the waste management and recovery operation subject to using air emission controls under the rule.

The first group of similar emission points designated to be an affected source for the Off-Site Waste and Recovery Operations NESHAP is the group of tanks, containers, surface impoundments, oil-water and organic-water separators, individual drain systems and other stationary material conveyance systems used to manage off-site material in each of the waste management and recovery operations specified in the rule that are located at the plant site. The units regulated under this affected source designation are collectively referred to hereafter in this notice as ''off-site material management units.''

The second the group of similar emission points designated to be an affected source for the Off-Site Waste and Recovery Operations NESHAP is process vents on units used to manage off-site material in each of the waste management and recovery operations specified in the rule that are located at the plant site. As defined for the rule, a process vent is an open-ended pipe, stack, or duct used for passage of gases, vapors, or fumes to the atmosphere and this passage is caused by mechanical means (such as compressors or vacuum-producing systems) or by process-related means (such as volatilization produced by heating). A stack or duct used to exhaust combustion products from an enclosed combustion unit (e.g., boiler, furnace, heater, incinerator) is not a process vent for this rulemaking.

The third group of similar emission points designated to be an affected source for the Off-Site Waste and Recovery Operations NESHAP is the group of equipment components prone to emitting HAP as a result of equipment leaks. This group of equipment consists of pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves and lines, valves, connectors, and instrumentation systems that contain or contact off-site material in each of the waste management and recovery operations specified in the rule that are located at the plant site.

D. MACT Floor Determination

Specific statutory directives set out in section 112 of the 1990 Amendments require the EPA to establish standards under a NESHAP to reflect application of maximum achievable control technology (MACT). A statutory minimum or baseline level of HAP emission control that the EPA can select to be MACT for a particular source category is defined under section 112(d)(3) of the 1990 Amendments, and is referred to as the ''MACT floor.'' For new sources, the MACT floor is the level of HAP emission control that is achieved in practice by the best controlled similar source. The statute allows standards under a NESHAP for existing sources to be less stringent than standards for new sources. The determination of MACT floor for existing sources is dependent on the nationwide number of existing sources within the source category. The off-site waste and recovery operations source category contains more than 30 existing sources nationwide. For a source category with 30 or more existing sources, the MACT floor is the average emission limitation achieved by the best performing 12 percent of the existing sources.

Once the MACT floors are determined for new and existing sources in a source category, the EPA must establish standards under a NESHAP that are no less stringent than the applicable MACT floors. The Administrator may promulgate standards that are more stringent than the MACT floor when such standards are determined by the EPA to be achievable taking into consideration the cost of implementing the standards as well as any non-air quality health and environmental impacts and energy requirements.

1. MACT Floor for Existing Sources

a. *Off-site Material Management Units.* As discussed in Section II.C of this notice, the EPA has revised the affected source designation for the off-site material management units at a plant site subject to the Off-Site Waste and Recovery Operations NESHAP. For the final rule, the designated affected source is the group of off-site material management units (e.g., tanks, surface impoundments, containers, oil-water and organic-water separators, individual drain systems and other stationary transfer systems) in each of the waste management and recovery operations specified in the rule that are located at the plant site. Because the MACT floor determination for these off-site material management units used at proposal was based on the application of the floor to individual units rather than the group of units, the EPA reconsidered the MACT floor determination following revision of the affected source designation for the rule.

The EPA reviewed site-specific information in the source category data base regarding existing air emission control practices for off-site material management units. In addition, the EPA considered the air emission controls that off-site material management units could be required to use by new air rules promulgated since the Off-Site Waste and Recovery Operations NESHAP was proposed (e.g., air rules for hazardous waste tanks, surface impoundments, and containers in subpart CC under 40 CFR parts 264 and 265).

Based on the EPA's review of the air emission control information in the data base for the off-site waste and recovery operations source category, the Agency concluded that most groups of off-site material management units (significantly more than 12 percent) manage off-site material, at a minimum, in covered units. A portion of these off-site material management units use more effective air emission controls such as venting the covered unit to a control device. However, based on the information available to Agency, the EPA cannot definitively determine whether the higher level of air emission control achieved by that portion of units using controls in addition to covers is representative of the average of the top 12 percent of all existing off-site material management units. Thus, the EPA decided to establish the MACT floor control technology for the existing off-site material managements as use of a cover.

For other source categories, the EPA has established whether a particular unit warrants the use of air emission controls under rules for the source category on the basis of a characteristic parameter for the materials placed in the unit (e.g., vapor pressure or organic concentration). The EPA believes that using this approach provides an effective and enforceable means for identifying the units that warrant air emission controls while excluding those units for which installation of controls is unnecessary because the units have no or little potential for HAP emissions. Consequently, to complete the definition of the MACT floor for this affected source, an applicability cutoff provision (referred to hereafter in this notice as an ''action level'') is needed to identify which off-site material management units use the selected air emission controls.

Establishing an action level required first selecting an appropriate format for the action level that allows the value to be relatively simple to be determined by an owner or operator and expeditiously checked by EPA or State enforcement personnel. For the proposed rule, the EPA evaluated several possible action level formats and decided that an action level based on the volatile organic HAP concentration (VOHAP) of the off-site materials is appropriate for identifying those units which emit HAP and warrant the application of air emission controls.

The data available to the EPA at this time for the off-site waste and recovery operations source category are insufficient to perform a rigorous statistical analysis for the purpose of establishing the minimum VOHAP concentration value for off-site material management units currently using air emission controls. From a qualitative perspective, application of air emission controls under the Off-Site Waste and Recovery Operations NESHAP is not needed when a material managed in an uncontrolled unit has little or no potential for HAP emissions. In general, these off-site materials can be characterized as materials having low VOHAP concentrations.

The EPA considered a range of possible values to establish the VOHAP concentration limit for the Off-Site Waste and Recovery Operations NESHAP. The EPA proposed a VOHAP concentration value of 100 ppmw to be used as the action level for the rule. However, in proposing this value, the EPA acknowledged that some off-site material management units subject to the Off-Site Waste and Recovery Operations NESHAP could be subject to other NESHAP and NSPS with differing action levels. The EPA therefore requested comment on establishing the VOHAP concentration action level for the rule at 100 ppmw, as well as information that could be used to support alternative action levels such as 500 ppmw (59 FR 51924). The EPA received comments stating that the 100 ppmw VOHAP concentration action level proposed by the EPA for the Off-site Waste and Recovery Operations NESHAP is inappropriate and inconsistent with other applicable NSPS and NESHAP and recommending that the EPA select a higher action level for the rule.

The EPA considered the comments received regarding the proposed action level, other revisions to the final Off-Site Waste and Recovery Operations NESHAP, and changes that the EPA anticipates making for other waste and wastewater related rules. The EPA

concluded that a reexamination of the MACT floor action level determination was appropriate. Based on consideration of the information available to the Agency regarding HAP emissions from waste management and recovery operations receiving off-site material, the EPA has concluded that a VOHAP concentration value of 500 ppmw best represents the MACT floor for existing off-site material management units using covers.

Having established the MACT floor for existing off-site material management units, the EPA consider control options that are more stringent than the MACT floor based on the air emission control requirements under existing EPA rules for HAP emission sources similar to off-site material management units (e.g., air standards for tanks under the HON, air standards for tanks, surface impoundments, and containers at hazardous waste TSDF under 40 CFR parts 264 and 265). These existing rules establish requirements for application of controls more effective than covers on certain categories of tanks, containers, and other units based on air emission potential related characteristics such as the capacity of the unit and the vapor pressure of the material managed in the unit. In the development of these other rules, the EPA determined for these particular units that the more effective controls are appropriate for control of the pollutants emitted from the units and that implementing these controls is cost-effective. Therefore, for the Off-Site Waste and Recovery Operations NESHAP the EPA concluded that it is reasonable to establish standards for certain off-site waste management units that are more stringent than the MACT floor when such standards are determined by the EPA to be appropriate and consistent with the control requirements for similar HAP emission sources under other existing EPA rules.

b. *Process Vents.* The MACT floor for affected sources consisting of process vents is the same MACT floor used at proposal with one revision to the action level. As discussed in the proposal notice (59 FR 51925), this MACT floor is based on adapting, to the extent applicable and relevant to the Off-Site Waste and Recovery Operations NESHAP, the air emission standards for process vents on hazardous waste management units and recycling units under 40 CFR 264 subpart AA and 40 CFR 265 subpart AA. The action level identifying application of air emission controls on process vents has been revised to be consistent with the 500 ppmw action level selected for MACT floor for off-site material management units. The control technology selected for the floor is connecting the process vents to appropriate control devices such that an organic HAP emission control efficiency of 95 percent or more is achieved.

c. *Equipment Leaks.* The same MACT floor selected at proposal is used for affected sources consisting of the group of equipment components consisting of pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves and lines, valves, connectors, and instrumentation systems that contain or contact off-site material in each of the waste management and recovery operations specified in the rule that are located at the plant site. The MACT floor requires control of HAP emissions from equipment leaks by implementing leak detection and repair (LDAR) work practices and equipment modifications for those equipment components containing or contacting off-site material having a total organic HAP concentrations equal to or greater than 10 percent. As discussed in the proposal notice (59 FR 51925), the EPA selected this MACT floor based on the existing equipment leak air standards applicable to waste management operations to treat hazardous waste under 40 CFR 264 subpart BB and 40 CFR 265 subpart BB. The requirements of the MACT floor selected for the Off-Site Waste and Recovery Operations NESHAP are also consistent with existing NSPS equipment leak standards (e.g., 40 CFR 60 subparts VV, GG, and KK) and for certain NESHAP equipment leak standards (e.g., 40 CFR 61 subpart V).

2. MACT Floor for New Sources

At proposal, the EPA concluded that the MACT floor determined for existing sources also represents the HAP emission control that is achieved in practice by the best controlled similar sources in the off-site waste and recovery operation source category with the exception of new tanks. The MACT floor for new tanks was established based on the level of emission control that is required for new tanks under the HON (i.e., 40 CFR 63 subpart G). The EPA still believes these are appropriate decisions for establishing the MACT floor for new sources under the revised affected source designations selected for the final Off-Site Waste and Recovery Operations NESHAP.

E. Format of Standards

Section 112 of the Act requires promulgation of an emission standard whenever it is feasible; section 112(h) states that ''if it is not feasible in the judgment of the Administrator to prescribe or enforce an emission standard for control of a hazardous air pollutant or pollutants, the Administrator may, in lieu thereof, promulgate a design, equipment, work practice, or operational standard, or combination thereof * * *'' The term ''not feasible'' is applicable if the emission cannot be captured and vented through a vent or stack designed for that purpose, or if the application of a measurement methodology is not practicable because of technical or economic limitations. Alternative formats were considered for the three types of affected sources defined for the Off-Site Waste and Recovery Operations NESHAP.

For off-site material management units, the EPA concluded that a numerical emission standard would not be feasible because it would be difficult to capture and measure emissions from these units for the purpose of evaluating compliance. Therefore, the format of the rule for these affected sources includes a combination of design, equipment, work practice, and operational standards. For process vents, the EPA considered two alternative numerical emission limitation formats. These emission limitation formats are a mass percent reduction of HAP from process vents and a mass limitation of HAP emission from process vents. The percent reduction format was chosen for the Off-Site Waste and Recovery Operations NESHAP because it is the best representation of control technology performance, and provides flexibility to owners and operators. This format is based on the HAP removal efficiency of conventional air pollution control devices and any control technology that can achieve the reduction efficiency can be applied to any configuration of process vents to comply with the standards. For equipment leak sources (i.e., pumps, valves, etc.), numerical emission standards are not feasible and the final standards for equipment leaks are in the format of work practice and equipment specifications.

F. Unit-Specific Subparts

The regulatory text that EPA proposed for the Off-Site Waste and Recovery Operations NESHAP included all of the requirements for the rule in a single subpart to be added to 40 CFR part 63. The EPA decided to promulgate the final requirements for the Off-Site Waste and Recovery Operations NESHAP as a series of six new subparts added to 40 CFR part 63. These subparts are Subpart DD—National Emission Standards for Off-Site Waste and Recovery

Operations, Subpart OO—National Emission Standards for Tanks—Level 1, Subpart PP—National Emission Standards for Containers, Subpart QQ—National Emission Standards for Surface Impoundments, Subpart RR—National Emission Standards for Individual Drain Systems, and Subpart VV—National Emission Standards for Oil-Water Separators and Organic-Water Separators.

The air emission control requirements promulgated in Subparts OO, PP, QQ, and RR are derived from and incorporate public comments on the air emission control requirements originally proposed in Subpart DD for tanks, surface impoundments, containers, and individual drain systems. In addition, an individual subpart (Subpart VV) has been added to the final rule specifying air emission control requirements for oil-water separators and organic-water separators (referred to collectively hereafter as ''separators''). At proposal, the EPA assumed that if a separator was subject to using air emission controls under the Off-Site Waste and Recovery Operations NESHAP it would be considered a type of tank. As such, this separator would have been required to meet the air emission control requirements specific in the rule for tanks. In actual practice, application of these controls to a separator in strict accordance with the requirements specified in the proposed rule may not be practical given special design and operating characteristics for separators. Therefore, the EPA concluded that it is appropriate to add an individual subpart specifically for separators that will provide a level of air emission control comparable to the control level established for tanks yet address the special design and operating features of separators.

The EPA decided to promulgate the air emission control requirements for selected types of units in individual subparts for ease of reference, administrative convenience, and as a step towards assuring consistency of the air emission control requirements applied to similar types of units under different rules. The EPA believes adopting the format of codifying the air emission control requirements for specific unit types in individual subparts will provide significant advantages to both regulated industries and to the Agency.

By today's notice, the air emission control requirements promulgated in Subparts OO, PP, QQ, RR, and VV presently are applicable only to units in waste management and recovery operations regulated under Subpart DD. For application of the unit-specific subparts to new rules for other source categories, the EPA is planning to reference these unit-specific subparts to specify the air emission control requirements for the units subject to using controls under the rule. The applicability, action level, designation of which units are required to use controls, treatment requirements, and any other requirements specific to the source category will be in the regulatory text under the source-specific subpart (i.e., the same format that is being promulgated today for the Off-Site Waste and Recovery Operations NESHAP) Also, the EPA may, in the future, amend existing NSPS, NESHAP, or other rules to reference the appropriate unit-specific subparts, whether as a replacement for the air emission control requirements in the existing rule or as an alternative means of compliance. In these rulemaking cases, the EPA will first propose the Agency's intention of applying the requirements of Subparts OO, PP, QQ, RR, and VV, as applicable, to other rules. The public will have the opportunity to comment on the appropriateness and application of using these unit-specific subparts for the particular sources regulated by the new or amended rule.

A major advantage for using the unit-specific subpart format for NESHAP and other air rules is for those situations when more than one rule applies to a particular source (e.g., a tank) and each of these rules requires use of air emission controls on that source (e.g., a fixed roof). By establishing unit-specific subparts, all of the rules will reference a common set of design, operating, testing, inspection, monitoring, repair, recordkeeping, and reporting requirements for air emission controls. This eliminates the potential for duplicative or conflicting air emission control requirements being placed on the unit by the different rules, and assures consistency of the air emission control requirements applied to the same types of units.

In the future, the EPA may decided it is appropriate to amend the air emission control requirements for different types of units to reflect improvements in control technologies or to add other control alternatives. When this occurs, using a unit-specific subpart format will simplify the amendment process and ensure that all source-specific subparts are amended in a consistent and timely manner. To incorporate the desired changes in the air emission control requirements, the EPA will need to amend only one subpart instead of amending each of the individual source category specific subparts. The identical amended regulatory language will automatically apply to all of the source category specific subparts that reference the amended unit-specific subpart. The amendments will become effective for all of the source category specific subparts at the same time.

G. Alternative Test Method Validation Procedure

As part of today's action, the EPA is promulgating a new validation procedure titled ''Alternative Validation Procedure for EPA Waste Methods'' that can be used as an alternative to Method 301 in Appendix A under 40 CFR part 63 for the validation of a test method established by the EPA Office of Water (OW) or the EPA Office of Solid Waste (OSW) when this test method is used for air emission standards. The alternative method is less rigorous than Method 301. A proposed version of the alternative validation procedure was made available for public review and comment on August 14, 1996 (60 FR 41870) as part of the information placed in the public docket and being considered by the Agency in revising air standards in the RCRA rules. Comments on the information were accepted by the EPA through October 13, 1995. No significant comments were received by the EPA regarding the proposed alternative validation procedure.

For the Off-Site Waste and Recovery Operations NESHAP, the EPA decided it is appropriate to allow organic concentration data test that are validated in accordance with the alternative validation method to be used as direct measurement data. Today's action promulgates ''Alternative Validation Procedure for EPA Waste and Wastewater Methods'' as Appendix D in 40 CFR part 63. This final version of Appendix D is the same as the proposed version. As promulgated, the alternative validation procedure is to be applied exclusively to those EPA methods developed by OW and OSW when the method is being applied to EPA air emission standards. If an owner or operator wants to use a test method not issued by either of these two EPA offices as an alternative to the test methods specifically listed in the rule, this test method must be validated according to the procedures in Sections 5.1 and 5.3 of Test Method 301.

III. Summary of Impacts

The EPA estimates that implementation of the Off-Site Waste and Recovery Operations NESHAP will reduce HAP emissions from the source category on a nationwide basis by approximately 82 percent, from 52,000 Mg/yr to 9,000 Mg/yr.

The EPA also estimated the reduction in VOC emissions from the source category. The Off-Site Waste and Recovery Operations NESHAP is estimated to reduce nationwide VOC emissions by approximately 52,000 Mg/yr. This value was calculated using the estimated nationwide HAP emission value times a value of approximately 1.2 to represent the ratio of VOC-to-HAP constituents in the off-site material regulated under the rule. The value for this ratio was derived from information in the data base for the off-site waste and recovery operations source category. This derived value is lower than VOC-to-HAP ratios indicated for other HAP emission sources. Thus, the procedure used to estimate nationwide VOC emissions for the source category is considered by the EPA to be conservative and may understate the actual quantity of VOC emission reduction that will occur from implementing the Off-Site Waste and Recovery Operations NESHAP.

The EPA prepared estimates of the cost to owners and operators of implementing the requirements of the final Off-Site Waste and Recovery Operations NESHAP at plant sites the EPA expects are likely to be subject to the rule. The total nationwide capital investment cost to purchase and install the air emission controls that are required by the rule is estimated by the EPA to be approximately $42 million. The total nationwide annual cost of the Off-Site Waste and Recovery Operations NESHAP is estimated to be approximately $18 million per year. This corresponds to an average cost of approximately $420 per megagram of HAP controlled.

Price increases in affected markets are projected at less than 0.01 percent of baseline price, and decreases in production are projected at less than 0.1 percent. No businesses or facilities are projected by the EPA to close as a result of implementing the requirements of the final rule. For more information regarding the economic analysis, consult the Economic Impact Analysis of National Emissions Standards for Hazardous Air Pollutants: Off-Site Waste and Recovery Operations available in the docket (Docket No. A–92–16).

IV. Summary of Responses to Major Comments

A summary of responses to selected major comments received on the proposed rule is presented below. Additional discussion of the EPA's responses to public comments is presented in the Basis and Support Document (see **ADDRESSES** section of this preamble).

A. Rule Applicability

Comment: Many commenters stated that the proposed applicability of the Off-Site Waste and Recovery Operations NESHAP would be too broad and should be narrower. Major reasons presented by individual commenters include: (1) the rule's applicability was expanded by the EPA beyond the scope of the initial source category listing without providing adequate notice to the public; (2) including operations managing ''recoverable materials'' received from off-site in the rule's applicability discourages recycling, provides a disincentive to pollution prevention, and is inconsistent with the Pollution Prevention Act; and (3) range of facility types subject to the rule is too broad because many of these facility types have significantly different HAP emission sources.

Response: The EPA proposed that the Off-Site Waste and Recovery Operations NESHAP be applicable to owners and operators of facilities that are ''major sources'' (as defined in 40 CFR 63.2) and at which operations are conducted to manage, convey, or handle ''wastes'' or ''recoverable materials'' received from off-site and containing specific organic HAP constituents (as specified in Table 1 of the rule). Under the proposed rule, waste management and recovery operations listed by the EPA as separate NESHAP source categories were specifically exempted from the requirements of the rule.

The EPA has not expanded the applicability of the Off-Site Waste and Recovery Operations NESHAP beyond the scope of the initial source category listing without providing adequate notice to the public. The EPA published an advance notice of proposed rulemaking (ANPR) in the Federal Register on December 20, 1993 (58 FR 66336) announcing the EPA's intent to develop a NESHAP for the off-site waste and recovery operations source category. In the ANPR, the EPA provided a general description of the types of facilities the EPA planned to regulate under this rulemaking (see 58 FR 66337). The EPA further provided a definition of ''waste'' that the Agency intended to be used for this rulemaking which included materials managed prior to being recycled. Thus, the Agency clearly expressed its intent in the ANPR to include recovery operations in the scope of this rulemaking.

As described in Section II.D.3 of this notice, the Pollution Prevention Act of 1990 (42 U.S.C. 13101 *et seq.*, Pub. L. 101–508, November 5, 1990) establishes the national policy of the United States for pollution prevention. The EPA believes that applying the Off-Site Waste and Recovery Operations NESHAP to units managing materials that are collected and transported to a facility for subsequent reprocessing or recycling is fully consistent with the Pollution Prevention Act. The final rule neither discourages recycling nor provides a disincentive to pollution prevention. The final rule does not prohibit or discourage an owner or operator from continuing to use the recovery operation; the rule only requires that the owner or operator control the organic HAP emitted to the atmosphere from the operation. This is consistent with the Pollution Prevention Act's declaration that operations to recycle or reuse materials be performed in an environmentally-safe manner.

In proposed regulatory text, the EPA split the definition of ''waste'' the Agency stated in the ANPR, into two separate terms; ''waste'' being defined as materials managed prior to being discarded or discharged, and ''recoverable materials'' being defined as materials managed prior to being recycled, reprocessed, or reused. Based on the comments received by the EPA, it appears that commenters interpreted the proposed regulatory text using these terms to extend the applicability of the rule to certain types of recycling and recovery operations that the Agency never intended to be subject to this rulemaking. To clarify the EPA's intent, the general term ''recoverable material'' is not used in the final rule. Instead, the EPA has added to the final rule the new terms ''used oil'' and ''used solvent'' to define the specific types of recycled or reprocessed materials subject to the rule. In each case where the final Off-Site Waste and Recovery Operations NESHAP is applicable to a used oil or used solvent recovery operation, the EPA has included this operation because the Agency has concluded that the operation when uncontrolled can be a significant source of HAP emissions and the operation will not be regulated by another NESHAP.

The EPA disagrees that the applicability of the Off-Site Waste and Recovery Operations NESHAP is too broad because many of the types of waste management and recovery operations included in the source category have significantly different HAP emission sources. In the Federal Register notice for the proposed rule, the EPA provided examples of specific types of facilities included in the off-site waste and recovery operations source category (see 59 FR 51920). At all of

these facilities, similar types of units are used to manage wastes or the other materials subject to the rule (e.g., tanks, containers, surface impoundments). Organic HAP are emitted from each type of unit by the same emission mechanisms regardless of the type of facility at which the unit is located. Common organic HAP control technologies are applicable to the units used at all of the off-site waste and recovery operations facility types. There are no significant differences in the organic HAP emissions or the control technologies applicable to controlling these emissions from the off-site waste and recovery operations facility types subject to this rulemaking.

Many commenters mistakenly interpreted the regulatory language of the proposed rule to extend the applicability of the Off-Site Waste and Recovery Operations NESHAP to facilities that the Agency never intended to be subject to this rulemaking. In response to the different interpretation of the proposed rule's applicability by commenters versus the Agency's intent for this rulemaking, the EPA reviewed the proposed regulatory text for the rule. The EPA decided to revise the format to be inclusive by specifically identifying those waste management and recovery operations that are subject to the Off-Site Waste and Recovery Operations NESHAP. Owners and operators of waste and recovery operations not explicitly included in the set of conditions specified for the final Off-Site Waste and Recovery NESHAP are not subject to the rule.

B. Data Base Used for Rule Development

Comment: Commenters stated that the data base used by the EPA to develop the Off-Site Waste and Recovery Operations NESHAP is not representative of all of the waste management recovery operations that would be potentially subject to the rule; and the information in the data base is not representative of current waste management and recovery operation practices.

Response: In the development of the Off-Site Waste and Recovery Operations NESHAP, the EPA used the best information available to the Agency. Earlier in the development of the rule, the EPA recognized that more up-to-date data and additional information would be beneficial for evaluating the different types of waste management and recovery operations included in the source category and for estimating the impacts associated with this rulemaking. The EPA made several requests for information from the public to supplement the Agency's information regarding the off-site waste and recovery operations source category.

Prior to proposal of the Off-Site Waste and Recovery NESHAP, the EPA announced in the ANPR the data bases the Agency was using for the impact analyses and requested information from the public (see 58 FR 66338 and 66339). The EPA specifically requested more information on off-site material characteristics (types, quantities, organic composition), operating practices, and waste and recovery operation emission points and air emission data. No additional information regarding these topics was received by the EPA.

At proposal, the EPA requested additional information to improve the Agency's understanding and profile of the waste management and recovery operations intended to be addressed by this rulemaking (see 59 FR 51921). Additional information was provided to the EPA by commenters regarding the following topics: (1) industrial waste landfill operations, waste characterizations, and HAP emissions; (2) general practices for waste management and recovery operations commonly used at chemical manufacturing plants and petroleum refineries; and (3) general waste management practices used at oil exploration and production leases. In addition, the EPA obtained additional information regarding used solvent collection and management practices for businesses that reprocess used solvent for sale to other users.

The data base used for the impact analysis for the rulemaking was compiled by collecting information related to off-site waste and recovery operations from nationwide surveys of hazardous waste TSDF, wastewater treatment facilities, and used oil management facilities that the EPA conducted for other rulemakings. The EPA is fully aware that off-site waste and recovery operations have changed since the surveys were conducted. These changes are the result of multiple factors including reductions in the quantities of certain wastes sent to waste management facilities as waste minimization programs have been implemented by generators; changes in waste disposal practices to comply with RCRA land disposal restrictions and other rules; and changes in ownership arrangements of waste management and recovery operations located within large petrochemical and other manufacturing complexes. In recognition of these changes, the EPA adjusted the data base to reflect these changes to the extent possible using other information available to the Agency.

The EPA reviewed the data base used to develop the Off-Site Waste and Recovery Operations NESHAP with respect to the Agency's decisions regarding the rule revisions made to the applicability of the final rule. The EPA believes that the data base contains sufficient information regarding the types of the waste management and recovery operations that are subject to the final Off-Site Waste and Recovery Operations NESHAP to support the Agency's decisions for this rulemaking.

C. Land Disposal Unit Requirements

Comment: Commenters disagreed with the proposed requirement to treat wastes prior to being placed in land disposal units because they state that the requirement is inconsistent with the RCRA land disposal restrictions and any solid waste land disposal restrictions should be promulgated by the EPA's Office of Solid Waste.

Response: The EPA proposed that, prior to being placed in land disposal units, owners and operators treat those off-site materials having a VOHAP concentration equal to or greater than the action level. Based on the EPA's decisions regarding applicability of the rule to landfills and considering the existing requirements under RCRA land disposal restrictions, the EPA concluded that the proposed requirement is not needed for the Off-Site Waste and Recovery Operations NESHAP. The final rule places no restrictions on the disposal of wastes in land disposal units nor places any other air emission control requirements on these units.

D. Off-Site Material Determination Test Methods

Comment: Commenters stated that proposed requirements for determining the average VOHAP concentration of a off-site material use inappropriate test methods and are excessive, impractical, and too costly to implement at many facilities potentially subject to the rule.

Response: Under the Off-Site Waste and Recovery Operations NESHAP, air emission controls are not required for those off-site material management units located in the affected source when the unit manages off-site material having a VOHAP concentration less than the action level. As part of the procedure for determining the VOHAP concentration of the off-site material, the EPA proposed that an owner or operator could use either: (1) Direct measurement using Method 305 of samples of the material collected in accordance with the procedures specified in the rule; or (2) the owner's or operator's knowledge of the VOHAP concentration in material

based on information, as specified in the rule.

For the final Off-Site Waste and Recovery Operations NESHAP, the EPA decided to add other appropriate test methods that an owner or operator can choose to use for direct measurement of the VOHAP concentration of an off-site material. In addition, the EPA has made certain other changes to facilitate the use of organic concentration data obtained using other alternative test methods not specifically listed in the rule. The EPA believes that the changes incorporated into waste determination requirements in conjunction with changes to the applicability and action level for the final Off-Site Waste and Recovery Operations NESHAP provide a range of options for determining the VOHAP concentration of an off-site material such that every owner and operator of facilities subject to the final rule has available practical and inexpensive waste determination alternatives.

The EPA developed Method 305 to provide a relative measure of the potential for specific volatile organic compounds to be emitted from waste materials. In developing Method 305, the EPA solicited public comments on a proposed version of the method and addressed these comments in the final version of the method (59 FR 19402). Method 305 has been validated and the EPA considers Method 305 to be an appropriate method for determining the VOHAP concentration of off-site materials subject to the Off-Site Waste and Recovery Operations NESHAP.

Method 305 uses the same waste sample collection procedures and sample recovery conditions established by Method 25D (40 CFR part 60, Appendix A). When using Method 25D, the waste sample is analyzed to determine the total concentration, by weight, of all organics recovered from the waste sample. When using Method 305, the waste sample is analyzed to determine the purged concentration, by weight, of only those specific hazardous air pollutants in the waste sample which are listed in Table 1 in the rule (i.e., the VOHAP concentration). Any hazardous air pollutant or organic constituent that may be contained in the sample but is not listed in Table 1 in the rule is not counted in the VOHAP concentration determination. For the off-site materials typically managed in the operations subject to the Off-Site Waste and Recovery Operations NESHAP, the EPA concluded that using Method 25D is a reasonable alternative to using Method 305 for the purpose of this rulemaking. Therefore, the final Off-Site Waste and Recovery Operations NESHAP includes use of Method 25D as one of the test methods an owner or operator may choose among for direct measurement of the VOHAP concentration of an off-site material.

Other test methods have been developed by the EPA for use in rulemakings under the Clean Water Act that measure the concentration of organic pollutants in municipal and industrial wastewaters (see Appendix A to 40 CFR part 136). Commenters suggested that certain of these test methods are applicable to EPA air rulemakings affecting wastewater management units. After extensive review, the EPA decided that as alternatives to using Method 305 or Method 25D for direct measurement of VOHAP concentration in an off-site material for the Off-Site Waste and Recovery Operations NESHAP it is appropriate to add Methods 624, 1624, and 1625 (all contained in 40 CFR 136, Appendix A) when used under certain specified conditions. Because these methods measure the total concentration of the HAP constituents listed in Table 1 of the rule, owners and operators may choose to ''correct'' these measured values to equate to the values that would be measured using Method 305. This is accomplished by multiplying the total concentration measured values times the appropriate ''f_m factor'' presented in Table 1 of the rule to obtain the Method 305 VOHAP concentration.

Sufficient recovery study results are available for Methods 1624 and 1625 to correct for possible bias, and therefore, these methods are considered adequate by the EPA to characterize the concentration of a off-site material sample. In addition, Method 624 is appropriate provided the initial calibration of the analytical system is performed with the target compounds to be measured. However, none of these methods specifies a sample collection and handling procedure that is considered by the EPA adequate to minimize the volatilization of organics from the sample prior to analysis. Therefore, to ensure that an adequately representative sample of an off-site material is analyzed by the method, an owner or operator that chooses to use either Method 624, 1624, or 1625 for the Off-Site waste and Recovery Operations NESHAP is required to develop and follow a written sampling plan. This plan describes a step-by-step procedure for collecting representative samples of the off-site materials such that material integrity is maintained and minimal loss of organics from the sample occurs throughout the collection and analysis process. An example of an acceptable sampling plan is one that incorporates sample collection and sample handing procedures similar to those specified in Method 25D. The sampling plan is to be maintained on-site in the facility records.

The EPA proposed use of knowledge-of-the-waste, allowing a facility owner or operator to use test data obtained using a test method other than Method 305 provided that the method was validated in accordance with Method 301 (40 CFR part 63, Appendix A). Under this application of Method 301, the owner or operator would be validating the alternative test method results as compared to test results obtained using Method 305. Since proposal, the EPA decided to allow organic concentration data test that are validated in accordance specifically with Sections 5.1 and 5.3 of Method 301 to be used as direct measurement data. This makes validation of the alternative test method a self-check of the method being validated. Also, if appropriate, owners and operators may choose to ''correct'' values measured by the alternative test method to equate to the values that would be measured using Method 305 by multiplying the measured values times the appropriate ''f_m factor'' presented for each hazardous air pollutant listed in Table 1 of the rule.

Finally, as discussed in Section II.G of this notice, the EPA is promulgating today a less rigorous validation procedure, ''Alternative Validation Procedure for EPA Waste Methods,'' in Appendix to 40 CFR part 63 as an alternative to Method 301 for the validation of a test method established by the EPA Office of Water (OW) or the EPA Office of Solid Waste (OSW) when this test method is used for air emission standards. The EPA decided it is appropriate to allow organic concentration data test that are validated in accordance with this method to be used as direct measurement data.

E. Container Air Emission Controls

Comment: Commenters stated that proposed air emission control requirements for containers are commercially unavailable or impractical to implement. Also, commenters stated that the requirements should be consistent with the container air emission control requirements under the RCRA rules.

Response: Since proposal, the EPA has obtained more information on the practices and equipment currently used to manage waste and used solvents in containers. Based on consideration of this information, the EPA decided to

revise the air emission control requirements for containers to better reflect the container organic HAP emission potential, the various container types, and the common container management practices used for off-site waste and recovery operations. The EPA believes that these revised requirements are technically feasible and practical to implement on all types of containers that the Agency expects to be subject to the rule. These revisions are described in detail in Section V.G of this notice.

The EPA is addressing consistency between the air emission control requirements for containers (as well as the other affected units) in the Off-Site Waste and Recovery Operations NESHAP and the RCRA rules by amending the RCRA rules to include an exemption for those affected units using organic emission controls in accordance with the requirements of the Off-Site Waste and Recovery Operations NESHAP or any other applicable NESHAP.

F. Recordkeeping and Reporting

Comment: Commenters stated that the recordkeeping and reporting requirements proposed for the Off-Site Waste and Recovery Operations NESHAP would be excessive and inconsistent with other NSPS, NESHAP, and RCRA rules that also may be applicable to a unit subject to the rule.

Response: Under section 114(a) of the Act, the EPA may require any owner or operator of a source subject to a NESHAP to establish and maintain records as well as prepare and submit notifications and reports to the EPA or authorized State. Review by EPA and State officials of appropriate information that is maintained in facility records and is submitted in facility prepared reports provides one means for checking the compliance status of the facility with the NESHAP technical requirements. However, the EPA also recognizes that excessive and duplicative recordkeeping and reporting requirements can create a burden to facility owners and operators complying with a NESHAP as well as to the EPA and State officials responsible for assuring compliance with the NESHAP. Thus, it is the EPA's intention to limit the amount of recordkeeping and reporting required for a particular NESHAP to reasonable requirements which will provide the appropriate information needed by EPA and State officials to enforce the rule.

For the Off-Site Waste and Recovery Operations NESHAP, the EPA proposed adopting the recordkeeping and reporting requirements as specified in the Part 63 General Provisions. The EPA reviewed the recordkeeping and reporting needed for the final rule considering the revisions made to the rule applicability and technical requirements. Based on this review, the EPA decided that certain changes to simplify the recordkeeping and reporting requirements for the final Off-Site Waste and Recovery Operations NESHAP can be made without compromising the enforceability of the rule.

VI. Summary of Changes Since Proposal

Changes have been incorporated into the final Off-Site Waste and Recovery Operations NESHAP in response to comments on the proposed rule. Also, the EPA has made many changes to the specific air emission control requirements to clarify the EPA's intent in the application and implementation of these requirements and to make these requirements consistent and up-to-date with EPA decisions made for other related NESHAP and RCRA rules. The substantive changes to the Off-Site Waste and Recovery Operations NESHAP since proposal are summarized below.

A. Applicability

Several major changes have been made to the applicability of the final Off-Site Waste and Recovery Operations NESHAP to address comments on the proposed rule and to clarify the specific waste management and recovery operations that the EPA intends to be subject to the Off-Site Waste and Recovery Operations NESHAP. These changes include: (1) Deleting the proposed term ''recoverable material'' and defining new terms ''off-site material'', ''used oil'', and ''used solvent'' to explicitly specify the types of materials that the EPA is regulating under this rule; (2) adding a list of the specific wastes and other materials which can be received at a plant site but not considered by the EPA to be off-site materials for the purpose of implementing the rule; and (3) using an inclusive format to limit the rule applicability to six specific types of waste management and recovery operations. A detailed description of each of these changes is presented in the following paragraphs.

The Off-Site Waste and Recovery Operations NESHAP is applicable to owners and operators of a plant site that meet both of the following conditions: (1) The plant site is a major source of HAP emissions as defined in the General Provisions to 40 CFR part 63; and (2) at the plant site, the owner or operator manages ''off-site material,'' as defined in the rule, in one or more of the specific waste management or recovery operations listed in the rule. If either one (or both) of the conditions do not apply to a plant site, then the owner and operator of the plant site is not subject to the Off-Site Waste and Recovery Operations NESHAP, and no action is required by the owner or operator in regards to this rule.

For the purpose of implementing the Off-Site Waste and Recovery Operations NESHAP, a ''plant site'' is all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof. A unit or group of units within a contiguous property that are not under common control (e.g., a wastewater treatment unit or solvent recovery unit located at the site but is sold to a different company) is a different plant site.

The first applicability condition for the Off-Site Waste and Recovery Operations NESHAP is determined by whether or not the plant site is a major source of HAP emissions as defined in 40 CFR 63.2. In general, this would be a plant site that emits or has the potential to emit considering controls, in total, 10 tons per year or more of any one HAP or 25 tons per year or more of any combination of HAP. If the plant site is not a major source, then the owner and operator of the plant site is not subject to the Off-Site Waste and Recovery Operations NESHAP regardless of the types of materials received from off-site.

The second applicability condition involves the combined requirement that ''off-site material'' must be received at the plant site and this material must be managed in one of the six types of waste management or recovery operations specified in the rule. The first part of the applicability condition involves determining whether an ''off-site material'' as defined in the rule is received at the plant site. The second part of the applicability condition involves determining whether one or more of the following types of waste management or recovery operations is located at the plant site: (1) a hazardous waste treatment, storage, and disposal facility (TSDF) regulated under 40 CFR part 264 or 265 that manages waste received from off-site; (2) a wastewater treatment facility that manages wastewater received from off-site and this facility is exempted from regulation

as a TSDF under 40 CFR 264.1(g)(6) or 40 CFR 265.1(c)(10); (3) a wastewater treatment facility other than a POTW that manages wastewaters received from off-site and operation of this facility is the predominant function performed at the plant site; (4) a facility that recycles off-site material and this facility is exempted from regulation as a TSDF under 40 CFR 264.1(g)(2) or 40 CFR 265.1(c)(6); (5) a facility in which used solvents received from off-site are reprocessed or recovered; and (6) a facility in which used oil received from off-site is reprocessed or re-refined and this facility is regulated under 40 CFR Part 279, subpart F—Standards for Used Oil Processors and Refiners.

For the purpose of implementing the rule, ''off-site material'' is defined to be a material for which all three of the following criteria apply: (1) The material is a ''waste'', ''used oil'', or ''used solvent'' as defined in the rule; (2) this material is delivered, transferred, or otherwise moved to the plant site from another location; and (3) this material contains one or more of the specific HAP constituents listed in Table 1 in the rule. If the material received at the plant site does not meet any one of these criteria, then the material is not an ''off-site material'' under the rule.

The term ''waste'' used for the final rule is the same definition proposed for the rule. Waste types that EPA does not intend to be regulated under this rulemaking are specifically listed in the final rule. For the purpose of the implementing the Off-Site Waste and Recovery Operations NESHAP, none of the following wastes are ''off-site materials'': household waste as defined in 40 CFR 258.2; radioactive mixed waste managed in accordance with all applicable regulations under Atomic Energy Act and Nuclear Waste Policy Act authorities; waste that is generated by remedial activities required under the RCRA corrective action authorities (RCRA sections 3004(u), 3004(v), or 3008(h)), CERCLA authorities, or similar Federal or State authorities; waste containing HAP that is generated by residential households (e.g., old paint, home garden pesticides) and subsequently is collected as a community service by government agencies, businesses, or other organizations for the purpose of promoting the proper disposal of this waste; waste that is generated by or transferred from units complying with all applicable regulations under 40 CFR Part 63, subparts F and G—National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry; waste containing benzene that is generated by or transferred from units complying with all applicable requirements specified by § 61.342(b) under 40 CFR Part 61, subpart FF—National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr; and ship ballast water that is pumped from a ship to an onshore wastewater treatment facility.

''Used oil'' means any oil refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. This definition is consistent with the definition used by the EPA for the RCRA used oil management standards under 40 CFR Part 279, subpart F.

''Used solvent'' means a solvent composed of mixtures of one or more aliphatic hydrocarbons or aromatic hydrocarbons that has been used and as a result of such use is contaminated by physical or chemical impurities.

Based on the applicability conditions for the final Off-Site Waste and Recovery Operations NESHAP, an owner or operator is not subject to the rule and no action is required by the rule for the following cases. If a plant site is not a major source of HAP emissions, then the owner and operator of the plant site are not subject to the Off Site Waste and Recovery Operations NESHAP regardless of whether the site receives off-site material. If at a plant site is located one or more of the specific waste management or recovery operations listed in the rule but off-site material received at the plant site is not managed in these operations, then the owner and operator of the plant site are not subject to the Off-Site Waste and Recovery Operations NESHAP. In a case when a plant site receives off-site material and is a major source of HAP emissions but there is not one of the waste management or recovery operations listed in the rule located at the site, then owner and operator of the plant site are not subject to the Off-Site Waste and Recovery Operations NESHAP.

At a plant site subject to the Off-Site Waste and Recovery Operations NESHAP, the rule only applies to the affected sources used to manage off-site material in the waste management and recovery operations specified in the rule that are located at the plant site. Units and equipment used to manage off-site material at the plant site but are not part of one of the waste management or recovery operations specified in the rule are not affected sources under the rule.

The first affected source for the Off-Site Waste and Recovery Operations NESHAP is the group of tanks, surface impoundments, separators, transfer systems, and containers used to manage off-site material in each of the waste management and recovery operations specified in the rule that are located at the plant site. The second affected source for the rule is the group of process vents on units in each of the waste management and recovery operations specified in the rule that are located at the plant site.

The third affected source for the rule is the group of equipment components consisting of pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves and lines, valves, connectors, and instrumentation systems that contain or contact off-site material in each of the waste management and recovery operations specified in the rule that are located at the plant site.

The compliance date for existing sources subject to the Off-Site Waste and Recovery Operations NESHAP (i.e., affected sources that commenced construction or reconstruction before October 13, 1994) to meet the air emission control requirements of the rule is beginning 3 years after today's date. If management of off-site material in the source is discontinued by this date, then source would no longer subject to the rule. On the other hand, if an existing waste management operation or recovery operation does not presently receive off-site material but begins receiving off-site materials for the first time 3 years after today's date (and meets the other applicability conditions in the rule), then the source is a new source subject to the rule. In this case, the owner or operator of the source must achieve compliance with the provisions of the rule upon the first date that the waste management operation or recovery operation begins to manage the off-site material.

Finally, the list of the specific HAP constituents for the Off-Site Waste and Recovery Operations NESHAP (Table 1 in Subpart DD) was revised by the EPA for the final rule. The EPA decided to delete eight chemicals from the proposed list because of the low potential for these chemicals to be emitted from the waste management and recovery operations subject to the rule. The criterion used to characterize and evaluate emission potential was based on a chemical constituent's Henry's law constant. The following chemical compounds were deleted from the proposed list: acrylic acid, aniline, o-cresol, dibutylphthalate, 1,1-

dimethylhydrazine, formaldehyde, methyl hydrazine, and n-nitrosodimethylamine.

B. General Standards

Several major changes have been made to the general standards for the final rule. First, the average VOHAP concentration action level for off-site material required to be managed in the units using air emission controls under the rule has been changed to 500 ppmw (as determined at the point-of-delivery). Units managing off-site materials determined by the owner or operator to have average VOHAP concentrations that remain less than 500 ppmw are not required to use air emission controls under the rule. The second change is land disposal units have been deleted as an affected source and the final rule places no restrictions on the disposal of wastes in land disposal units.

A third change is the addition of an exemption to the general standards in the final Off-Site Waste and Recovery Operations NESHAP that relates to the treatment of the off-site material. This exemption provides that an off-site material management unit is exempted from the air emission control requirements if the off-site material placed in the unit is a hazardous waste that meets the numerical concentration limits, applicable to the hazardous waste, as specified in 40 CFR part 268—Land Disposal Restrictions under both of the following tables: (1) Table ''Treatment Standards for Hazardous Waste'' in 40 CFR 268.40, and (2) Table UTS—''Universal Treatment Standards'' in 40 CFR 268.48.

C. Treatment Standards

The final Off-Site Waste and Recovery Operations NESHAP provides owners or operators with a selection of alternative provisions for determining when a treated off-site material is no longer required to be managed in units meeting the air emission control requirements of the rule. The proposed treatment alternatives have been revised where appropriate to reflect the new action level of 500 ppmw and additional alternatives have been added to the rule to provide greater flexibility to the owner or operator in the treatment of off-site materials.

D. Tank Standards

The tank standards have been revised to address comments on the proposed requirements, to be consistent with tank standards established for related NESHAP source categories, and to reduce the inspection, monitoring, recordkeeping, and reporting requirements. In general, the final Off-Site Waste and Recovery Operations NESHAP establishes two levels of air emission control for tanks managing off-site materials having a maximum HAP vapor pressure less than 76.6 kPa. The control level applicable to a tank required to use controls is determined by the tank design capacity and the maximum organic HAP vapor pressure of the off-site material in the tank. Different capacity and vapor pressure limits have been established for tanks determined to be part of an existing affected source and those determined to be part of a new affected source. Tanks used for waste stabilization processes are required to use Tank Level 2 air emission controls. The designation of which tanks are required to use controls and the required control level for the tank are specified in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. The specific air emission control requirements for Tank Level 1 controls are specified in 40 CFR part 63, subpart OO—National Emission Standards for Tanks-Level 1. The specific air emission control requirements for Tank Level 2 controls remain in 40 CFR part 63, subpart DD.

The tank capacity limits for existing tanks in which the maximum HAP vapor pressure of the off-site material in the tank is less than 76.6 kPa have been corrected to be consistent with the EPA's original intent to be compatible with other RCRA and NESHAP air emission standards already promulgated by the Agency which potentially could be applicable to the same tank. The proposed rule was incorrectly drafted to exclude existing tanks having a design capacity less than 75 m^3 (approximately 20,000 gallons) from using any air emission controls. The EPA never intended to exclude this group of tanks from this rulemaking. Under the final rule, when applicable, use of Tank Level 1 air emission controls is required for an existing tank having a design capacity less than 75 m^3.

For a tank required to use Level 1 controls, the final rule specifies that the off-site material be managed in a tank using a fixed-roof. For the Level 2 controls, the final rule requires that off-site material be managed in one of the following: (1) a fixed roof tank equipped with an internal floating roof; (2) a tank equipped with an external floating roof; (3) a tank vented through a closed-vent system to a control device; (4) a pressure tank; or (5) a tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device.

E. Oil-Water Separator and Organic-Water Standards

Under the final Off-Site Waste and Recovery Operations NESHAP, individual air emission control requirements have been established for oil-water separator or organic-waster separators. For each separator required to use controls under the rule, the owner or operator is required to control air emissions from the separator by installing and operating on each section of the unit either a floating roof or a fixed-roof that is vented through a closed-vent system to a control device. The designation of which separators are required to use controls is specified in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. The specific air emission control requirements are specified in 40 CFR part 63, subpart VV—National Emission Standards for Oil-Water and Organic-Water Separators.

F. Surface Impoundment Standards

Revisions have been made to the surface impoundment standards so that, where relevant and appropriate, the inspection, monitoring, recordkeeping, and reporting requirements for surface impoundments are consistent with the requirements established for tanks and separators. The designation of which surface impoundments are required to use controls is specified in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. The specific air emission control requirements are specified in 40 CFR part 63, subpart QQ—National Emission Standards for Surface Impoundments.

G. Container Standards

The container standards have been significantly revised to address comments on the proposed requirements, to make this rule compatible with the existing U.S. Department of Transportation (DOT) regulations for transporting hazardous materials, and to reduce the inspection, monitoring, recordkeeping, and reporting requirements. The designation of which containers are required to use controls and the required control level for the container are specified in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. The specific air emission control requirements for each control level are specified in 40 CFR Part 63

subpart PP—National Emission Standards for Containers.

The revised container standards for the Off-Site Waste and Recovery Operations NESHAP establish three levels of air emission control. The control level applicable to a container is determined by the container design capacity, the total organic content of the material in the container, and use of the container. For example, containers with a design capacity less than or equal to 0.1 m^3 (approximately 26 gallons) are not subject to any requirements under the rule.

Under the final rule, Level 1 controls are required for the following container categories (except when the container remains uncovered for waste stabilization processes): (1) containers having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3 (approximately 119 gallons); and (2) containers with a design capacity greater than 0.46 m^3 and used to manage off-site materials that do not meet the definition of ''light material.'' Level 2 controls are required for containers with a design capacity greater than 0.46 m^3 and used to handle ''light materials'' (i.e., off-site materials where the vapor pressure of one or more of the components in the material is greater than 0.3 kilopascals [kPa] at 20 °C, and the total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 °C is equal to or greater than 20 percent by weight), except when the container remains uncovered for waste stabilization processes. Level 3 controls are required for containers having a design capacity greater than 0.1 m^3 that must remain uncovered for waste stabilization processes.

For the containers required to use Level 1 controls, the final rule requires that the off-site material be managed either: (1) in a container that meets the relevant DOT regulations on packaging hazardous materials for transportation under 49 CFR parts 173, 178, 179, and 180; or (2) a covered container that meets the requirements specified in the final rule. No additional requirements are specified by the final rule for containers complying with the applicable DOT regulations. In the case when an owner or operator elects to comply with the covered container requirements (i.e., non-DOT containers), the container must be equipped with a tight-fitting cover that has no visible gaps, spaces, holes, or other openings. The rule does require a visual inspection when the cover is applied and, thereafter, annually if the container remains in on-site storage for a period longer than 1 year. No testing for detectable organic emissions using Method 21 is required. No recordkeeping and reporting are required under the final rule for containers using Level 1 controls.

For the containers required to use Level 2 controls, the final rule requires that the off-site material be managed in one of the following: (1) a container that meets the relevant DOT regulations on packaging hazardous materials for transportation under 49 CFR parts 173, 178, 179, and 180; or (2) a container that has been demonstrated within the preceding 12 months to operate with no detectable organic emissions by using Method 21; or (3) a container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27. No additional requirements are specified by the final rule for containers complying with the applicable DOT regulations. Specific design, operating, inspection and monitoring, repair, recordkeeping, and reporting requirements for containers tested using either Method 21 or 27 are specified in the rule.

For the containers required to use Level 3 controls, the final rule requires that an open container be placed in an enclosure vented through a closed-vent system to a control device or a covered container be vented directly to a control device. If an enclosure is used, the enclosure is to be designed in accordance with the criteria for a permanent total enclosure as specified in 40 CFR 52.741, Appendix B, Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure.

Requirements for loading off-site material into a container have been revised since proposal. Under the final rule there are no requirements for loading off-site material into containers using Level 1 controls. For containers using Level 2 controls, the loading requirements have been revised to allow flexibility to use any appropriate loading method that will minimize exposure of the off-site material to the atmosphere and thereby reduce organic air emissions, to the extent practical considering the physical properties of the off-site material and good engineering and safety practices. Examples of container loading procedures that the EPA considers to meet these requirements include, but are not limited to, using a submerged-fill pipe or other submerged-fill method to load liquids into the container; or using a vapor-balancing or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations.

The inspection, monitoring, recordkeeping, and reporting requirements for containers have been significantly simplified from those proposed. Owners and operators of containers using either Container Level 1 or Container Level 2 controls in accordance with the provisions of the rule are required to visually inspect the container and its cover and closure devices to check for defects at the time the owner or operator first accepts possession of the container at the facility site with the exception of those containers emptied within 24 hours of being received. Also, in the case when a container used for managing regulated-material remains at the facility site for a period of 1 year or more, the container and its cover and closure devices are to be visually inspected to check for defects at least once every 12 months.

There are no requirements for periodic Method 21 leak monitoring of containers. There are no recordkeeping nor reporting requirements under this final rulemaking for containers using either Container Level 1 or Container Level 2 controls.

H. Transfer System Standards

The major change to the transfer system standards is the addition of specific requirements for individual drain systems to the final rule. The designation of which individual drain systems are required to use controls is specified in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. The specific air emission control requirements are specified in 40 CFR 63 subpart RR—National Emission Standards for Individual Drain systems. Other revisions have been made, where relevant and appropriate, so that the requirements for transfer systems other than an individual drain system are consistent with the requirements established for the other types of off-site material management units.

I. Process Vent Standards

In response to comments, several changes have been made to the air emission control requirements for process vents under the Off-Site Waste and Recovery Operations NESHAP. The term ''enclosed treatment unit'' proposed for the rule has been deleted from the final rule and replaced with a definition for the term ''process vent.'' The EPA decided to use this new term to clarify the process vents that must use air emission controls under the rule. The final rule has also been revised to require an average emission reduction of

at least 95 percent by weight in total HAP emissions from the combination of all affected process vents at the plant site (i.e., all process vents that are a part of the affected sources subject to the Off-Site Waste and Recovery Operations NESHAP).

J. Equipment Leak Air Standards

The EPA has not included in the final Off-Site Waste and Recovery Operations NESHAP a definition for ''ancillary equipment'' as was originally proposed. Instead, the specific equipment types subject to equipment leak standards under the Off-Site Waste and Recovery Operations NESHAP are listed directly in the applicability section of the rule (§ 63.690). These equipment types are consistent with other NESHAP equipment leak standards.

K. Control Device and Closed-Vent System Standards

Revisions to the control device and closed-vent system standards consist of incorporating changes to the closed-vent system and control device requirements so that these requirements are consistent and up-to-date with the general decisions the EPA has made regarding NESHAP inspection, monitoring, maintenance, repair, malfunctions, recordkeeping, and reporting requirements for organic emission control devices. Also, to improve the readability and user understanding of the requirements, the format used to present the standards has been revised. In the final rule, all of the requirements for a particular type of control device (e.g., vapor incinerator, carbon adsorber, or condenser) are grouped together.

L. Test Methods and Procedures

For the final Off-Site Waste and Recovery Operations NESHAP, the EPA decided to allow an owner or operator to use any one of several existing EPA test methods for direct measurement of the VOHAP concentration of an off-site material. In addition, the EPA has made certain other changes to the rule to facilitate the use of organic concentration data obtained using other alternative test methods not specifically listed in the rule.

The final rule allows an owner or operator to directly measure the volatile organic concentration using any one of the following methods: Method 305 in 40 CFR part 63, Appendix A; Method 25D in 40 CFR part 60, Appendix A; or Method 624, Method 1624, or Method 1625 in 40 CFR part 136, Appendix A (when used in accordance with the procedure specified in the rule). In addition, an owner or operator may use any other alternative method that has been validated in accordance with the procedures specified in Sections 5.1 and 5.3 of Method 301 or specified in the Appendix D—Alternative Validation Procedure for EPA Waste Methods promulgated by this action in 40 CFR part 63.

M. Recordkeeping and Reporting Requirements

The EPA has changed the recordkeeping and reporting requirements for the final Off-Site Waste and Recovery Operations NESHAP to reflect the revisions to the rule applicability and technical requirements and reduce the burden of these requirements on owners and operators.

VII. Administrative Requirements

A. Docket

The docket is an organized and complete file of information considered by the EPA in the development of a rulemaking. The docket pertaining to the Off-Site Waste and Recovery Operations NESHAP is Docket No. A–92–16. This docket contains a copy of the regulatory text of the proposed rule, the BID, and copies of all BID references and other information related to the development of the proposed and final rule. The public may review all materials in this docket at the EPA's Air and Radiation Docket and Information Center (see the **ADDRESSES** section at the beginning of this notice).

B. Paperwork Reduction Act

The information collection requirements for this NESHAP have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act,* 44 U.S.C. 3501 et seq. An Information Collection Request (ICR) document has been prepared by the EPA (ICR No. 1717.02), and a copy may be obtained from Sandy Farmer, OPPE Regulatory Information Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W.; Washington, DC 20460, or by calling (202) 260–2740.

The public recordkeeping and reporting burden for this collection of information is estimated to average approximately 830 hours per respondent for each of the first 3 years following promulgation of the rule. These estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the recordkeeping and reporting burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (2137), U.S. Environmental Protection Agency, 401 M Street, S.W.; Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked ''Attention: Desk Officer for EPA.''

C. Executive Order 12866

Under Executive Order 12866 (58 FR 5173, October 4, 1993), the Agency must determine whether the regulatory action is ''significant'' and therefore subject to OMB review and the requirements of the Executive Order. The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

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

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

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

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

Pursuant to the terms of the Executive Order 12866, it has been determined that this action will be treated as a ''significant regulatory action'' within the meaning of the Executive Order. As such, this action was submitted to the Office of Management and Budget (OMB) for review. Changes made in response to OMB suggestions or recommendations are documented in the docket pertaining to the Off-Site Waste and Recovery Operations NESHAP rulemaking (Docket No. A–92–16).

D. Regulatory Flexibility Act

Section 605 of the Regulatory Flexibility Act of 1980 (5 U.S.C. 601 et seq.), the EPA Regulatory Flexibility guidelines (April, 1992), and the Small Business Regulatory Fairness Act of 1996 requires Federal agencies to give special consideration to the impacts of regulations on small entities, which are small businesses, small organizations, and small governments. The major purpose of the Regulatory Flexibility Act, the EPA guidelines, and the Small Business Fairness Act is to keep paperwork and regulatory requirements

from being out of proportion to the scale of the entities being regulated, without compromising the objectives of, in this case, the Clean Air Act.

A small business with establishments in Standard Industrial Classification 4953, Refuse Systems, is defined by the Small Business Administration as one receiving less than $6 million per year, averaged over the most recent three fiscal years. A small organization is a not-for-profit enterprise that is independently owned and operated and is not dominant in the waste disposal industry. A small government is one that serves a population of less than 50,000 people. The EPA may use other definitions, but elects to use these. The EPA believes that small organizations and small governments have at most a very minor involvement with the types of waste management and recovery operations subject to this rule, and therefore would not be significantly affected by the Off-Site Waste and Recovery Operations NESHAP. Hence, the EPA has concentrated its attention on small businesses.

The Regulatory Flexibility Act specifies that Federal agencies must prepare an initial regulatory flexibility analysis if a proposed regulatory action would have ''a significant economic impact on a substantial number of small entities.'' The data bases available to the EPA reflect the state of the hazardous waste TSDF industry in 1986, and provide limited basis for updating the economic factors. Furthermore, the EPA does not have reliable projections of construction of new facilities with the types of waste management and recovery operations that will be subject to the rule. The EPA, based on its initial Regulatory Flexibility analysis, therefore assumed that the rule may have a significant impact on a substantial number of small businesses, and conducted a final regulatory flexibility analysis. This analysis is part of the economic impact analysis (titled *Economic Impact Analysis of National Emission Standards for Hazardous Air Pollutants: Off-Site Waste and Recovery Operations*) prepared for the rulemaking and available in the docket (Docket No. A–92–16).

Even though many facilities at which are located waste management and recovery operations receiving off-site materials are expected to be area sources and would not be subject to this NESHAP, the EPA assumed for the regulatory flexibility analysis that all facilities listed in the source category data base are collocated at major sources. Also, the analysis did not exclude those facilities that are major sources but would not be subject to the air emission control requirements under the Off-Site Waste and Recovery Operations NESHAP because the facility qualifies for the rule exemption for a facility at which the total annual organic HAP mass content of all off-site material is less than 1 Mg/yr.

From the source category data base, the EPA identified for the analysis 110 small businesses that own 112 facilities subject to the Off-Site Waste and Recovery Operations NESHAP. As a result of exemptions allowed by the final rule, none of these small businesses would incur costs beyond costs for recordkeeping and reporting. All of these small businesses would meet at least one of the exemption criteria in the rule and, therefore, would not need to use the air emission controls required by the rule. The small costs for recordkeeping and reporting are required to document compliance with the rule exemptions. For a median small business, the same costs come to less than 0.1 percent of sales—compared with about 0.01 percent for the median large business. Since there are no capital costs to small businesses, none of the small businesses would exceed the capital cost retained earning breakpoints (the maximum amount of new capital a business can raise without issuing new stock and without changing its existing capital structure). By way of comparison, 30 percent of large businesses would have capital costs of compliance exceeding their breakpoints. None of these large businesses are expected to receive significant economic impacts.

Finally, the EPA evaluated the possibility that the final rule might cause a small business to close. Based on this review, no small businesses are expected to close as a result of having to comply with the requirements of the final rule.

Pursuant to section 605(b) of the Regulatory Flexibility Act, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities.

E. Unfunded Mandates

Under section 202 of the Unfunded Mandates Reform Act of 1995 (''Unfunded Mandates Act''), signed into law on March 22, 1995, the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate, or to the private sector, of $100 million or more. Under section 205, the EPA must select the most cost effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

The EPA has determined that the action promulgated today does not include a Federal mandate that may result in estimated costs of $100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

F. Review

The off-site waste and recovery operations NESHAP will be reviewed 8 years from today's date of promulgation. This review will include an assessment of such factors as evaluation of the residual health risks, any duplication with other air programs, the existence of alternative methods, enforceability, improvements in air emission control technology and health data, and the recordkeeping and reporting requirements.

VII. Statutory Authority

The statutory authority for this proposal is provided by section 101, 112, 114, 116, and 301 of the Clean Air Act, as amended; 42. U.S.C., 7401, 7412, 7414, 7416, and 7601.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Containers, Equipment leaks, Hazardous air pollutants, Individual drain systems, NESHAP, Off-site waste and recovery operations, Oil-water separators, Process vents, Tanks, Surface impoundments, Used oil, Used solvents, Waste.

Dated: May 28, 1996.

Carol M. Browner,

The Administrator.

For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations are amended as follows:

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

1–3. The authority citation for part 63 continues to read as follows:

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

4. Part 63 is amended by adding subpart DD consisting of §§ 63.680 through 63.698 to read as follows:

Subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations

Subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations

§ 63.680 Applicability and designation of affected sources.

(a) The provisions of this subpart apply to the owner and operator of a plant site for which both of the conditions specified in paragraphs (a)(1) and (a)(2) of this section are applicable. If either one of these conditions does not apply to the plant site, then the owner and operator of the plant site are not subject to the provisions of this subpart.

(1) The plant site is a major source of hazardous air pollutant (HAP) emissions as defined in 40 CFR 63.2.

(2) At the plant site is located one or more of operations that receives off-site materials as specified in paragraph (b) of this section and the operations is one of the following waste management operations or recovery operations as specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section.

(i) A waste management operation that receives off-site material and the operation is regulated as a hazardous waste treatment, storage, and disposal facility (TSDF) under either 40 CFR part 264 or part 265.

(ii) A waste management operation that treats wastewater which is an off-site material and the operation is exempted from regulation as a hazardous waste treatment, storage, and disposal facility under 40 CFR 264.1(g)(6) or 40 CFR 265.1(c)(10).

(iii) A waste management operation that treats wastewater which is an off-site material and the operation meets both of the following conditions:

(A) The operation is subject to regulation under either section 402 or 307(b) of the Clean Water Act but is not owned by a ''state'' or ''municipality'' as defined by section 502(3) and 502(4), respectively, of the Clean Water Act; and

(B) The treatment of wastewater received from off-site is the predominant activity performed at the plant site.

(iv) A recovery operation that recycles or reprocesses hazardous waste which is an off-site material and the operation is exempted from regulation as a hazardous waste treatment, disposal, and storage facility under 40 CFR 264.1(g)(2) or 40 CFR 265.1(c)(6).

(v) A recovery operation that recycles or reprocesses used solvent which is an off-site material and the operation is not part of a chemical, petroleum, or other manufacturing process that is required to use air emission controls by another subpart of 40 CFR part 63.

(vi) A recovery operation that re-refines or reprocesses used oil which is an off-site material and the operation is regulated under 40 CFR 279 subpart F—Standards for Used Oil Processors and Refiners.

(b) For the purpose of implementing this subpart, an off-site material is a material that meets all of the criteria specified in paragraph (b)(1) of this section but is not one of the materials specified in paragraph (b)(2) of this section.

(1) An off-site material is a material that meets all of the criteria specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section. If any one of these criteria do not apply to the material, then the material is not an off-site material subject to this subpart.

(i) The material is a waste, used oil, or used solvent as defined in § 63.681 of this subpart;

(ii) The material is not produced or generated within the plant site, but the material is delivered, transferred, or otherwise moved to the plant site from a location outside the boundaries of the plant site; and

(iii) The material contains one or more of the hazardous air pollutants (HAP) listed in Table 1 of this subpart based on the composition of the material at the point-of-delivery, as defined in § 63.681 of this subpart.

(2) For the purpose of implementing this subpart, the following materials are not off-site materials:

(i) Household waste as defined in 40 CFR 258.2.

(ii) Radioactive mixed waste managed in accordance with all applicable regulations under Atomic Energy Act and Nuclear Waste Policy Act authorities.

(iii) Waste that is generated as a result of implementing remedial activities required under the Resource Conservation and Recovery Act (RCRA) corrective action authorities (RCRA sections 3004(u), 3004(v), or 3008(h)), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authorities, or similar Federal or State authorities.

(iv) Waste containing HAP that is generated by residential households (e.g., old paint, home garden pesticides) and subsequently is collected as a community service by government agencies, businesses, or other organizations for the purpose of promoting the proper disposal of this waste.

(v) Waste that is generated by or transferred from units complying with all applicable regulations under 40 CFR 63 subparts F and G—National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry.

(vi) Waste that is generated by or transferred from units complying with all applicable requirements specified by § 61.342(b) under 40 CFR 61 subpart FF—National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year.

(vii) Ship ballast water pumped from a ship to an onshore wastewater treatment facility.

(c) For the purpose of implementing this subpart, the affected sources at a plant site subject to this subpart are as follows:

(1) Off-site material management units. The affected source is the group of tanks, containers, oil-water or organic-water separators, surface impoundments, and transfer systems used to manage off-site material in each of the waste management operations and recovery operations specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site.

(2) Process vents. The affected source is the group of process vents on units used to manage off-site material in each of the waste management operations and recovery operations specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site.

(3) Equipment leaks. The affected source is the group of equipment specified in § 63.683(b)(2)(i) through (b)(2)(iii) of this subpart that is used to handle off-site material in each of the waste management operations and recovery operations specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site.

(d) Owners and operators of plant sites at which are located affected sources subject to this subpart are exempted from the requirements of §§ 63.682 through 63.699 of this subpart in situations when the total annual quantity of the HAP that is contained in the off-site material received at the plant site is less than 1 megagram per year. This total annual HAP quantity for the off-site material shall be based on the total quantity of the HAP listed in Table 1 of this subpart as determined at the point-of-delivery for each off-site material stream. Documentation shall be prepared by the owner or operator and maintained at the plant site to support the initial determination of the total annual HAP quantity for the off-site material. The owner or operator shall perform a new determination when the extent of changes to the quantity or composition of the off-site material received at the plant site could cause the total annual HAP quantity in the off-site material to the exceed limit of 1 megagram per year.

(e) Compliance dates.

(1) Existing sources. The owner or operator of an affected source that commenced construction or reconstruction before October 13, 1994, shall achieve compliance with the provisions of the subpart no later than July 1, 1999 unless an extension has been granted by the Administrator as provided in 40 CFR 63.6(i).

(2) New sources. The owner or operator of an affected source for which construction or reconstruction commences on or after October 13, 1994, shall achieve compliance with the provisions of this subpart by July 1, 1996 or upon initial startup of operations, whichever date is later as provided in 40 CFR 63.6(b). For the purpose of implementing this subpart, a waste management operation or recovery operation that commenced construction or reconstruction before October 13, 1994, and receives off-site material for the first time after July 1, 1999 is a new source, and the owner or operator of this affected source shall achieve compliance with the provisions of this subpart upon the first date that the waste management operation or recovery operation begins to manage the off-site material.

(f) The provisions of 40 CFR part 63, subpart A—General Provisions that apply and those that do not apply to this subpart are specified in Table 2 of this subpart.

§ 63.681 Definitions.

All terms used in this subpart shall have the meaning given to them in this section, 40 CFR 63.2 of this part, and the Act.

Boiler means an enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator or a process heater.

Closed-vent system means a system that is not open to the atmosphere and is composed of hard-piping, ductwork, connections, and, if necessary, fans, blowers, or other flow-inducing devices that conveys gas or vapor from an emission point to a control device.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air pollutant emissions to the atmosphere by blocking an opening in a cover when the device is secured in the closed position. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Container means a portable unit used to hold material. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as ''portable tanks'' or ''totes'', cargo tank trucks, and tank rail cars.

Continuous record means documentation of data values measured at least once every 15 minutes and recorded at the frequency specified in this subpart.

Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 15-minutes or more frequent block averages.

Continuous seal means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

Control device means equipment used for recovering or oxidizing organic vapors. Examples of such equipment include but are not limited to carbon adsorbers, condensers, vapor incinerators, flares, boilers, and process heaters.

Cover means a device that prevents or reduces air pollutant emissions to the atmosphere by forming a continuous barrier over the off-site material managed in a unit. A cover may have openings (such as access hatches, sampling ports, gauge wells) that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit or a cover may be formed by structural features permanently integrated into the design of the unit.

Emission point means an individual tank, surface impoundment, container, oil-water or organic-water separator, transfer system, process vent, or enclosure.

Enclosure means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapor through a closed vent system to a control device.

External floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a tank with no fixed roof.

Fixed roof means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the liquid managed in the unit.

Flame zone means the portion of the combustion chamber in a boiler or process heater occupied by the flame envelope.

Floating roof means a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the liquid being contained, and is equipped with a continuous seal.

HAP means hazardous air pollutants.

Hard-piping means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

Hazardous waste means a waste that is determined to be hazardous under the Resource Conservation and Recovery Act (PL 94–580) (RCRA), as implemented by 40 CFR parts 260 and 261.

Individual drain system means a stationary system used to convey wastewater streams or residuals to a waste management unit or to discharge

or disposal. The term includes hard-piping, all drains and junction boxes, together with their associated sewer lines and other junction boxes (e.g., manholes, sumps, and lift stations) conveying wastewater streams or residuals. For the purpose of this subpart, an individual drain system is not a drain and collection system that is designed and operated for the sole purpose of collecting rainfall runoff (e.g., stormwater sewer system) and is segregated from all other individual drain systems.

Internal floating roof means a cover that rests or floats on the liquid surface (but not necessarily in complete contact with it inside a tank that has a fixed roof).

Light-material service means the container is used to manage an off-site material for which both of the following conditions apply: the vapor pressure of one or more of the organic constituents in the off-site material is greater than 0.3 kilopascals (kPa) at 20 °C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 °C is equal to or greater than 20 percent by weight.

Liquid-mounted seal means a foam- or liquid-filled continuous seal mounted in contact with the liquid in a unit.

Maximum HAP vapor pressure means the sum of the individual HAP equilibrium partial pressure exerted by an off-site material at the temperature equal to either: the local maximum monthly average temperature as reported by the National Weather Service when the off-site material is stored or treated at ambient temperature; or the highest calendar-month average temperature of the off-site material when the off-site material is stored at temperatures above the ambient temperature or when the off-site material is stored or treated at temperatures below the ambient temperature. For the purpose of this subpart, maximum HAP vapor pressure is determined using the procedures specified in § 63.694(j) of this subpart.

Metallic shoe seal means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.694(k) of this subpart.

Off-site material means a material that meets all of the criteria specified in paragraph § 63.680(b)(1) of this subpart but is not one of the materials specified in § 63.680(b)(2) of this subpart.

Off-site material management unit means a tank, container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to manage off-site material.

Off-site material stream means an off-site material produced or generated by a particular process or source such that the composition and form of the material comprising the stream remain consistent. An off-site material stream may be delivered, transferred, or otherwise moved to the plant site in a continuous flow of material (e.g., wastewater flowing through a pipeline) or in a series of discrete batches of material (e.g., a truckload of drums all containing the same off-site material or multiple bulk truck loads of an off-site material produced by the same process).

Oil-water separator means a separator as defined for this subpart that is used to separate oil from water.

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

Organic-water separator means a separator as defined for this subpart that is used to separate organics from water.

Plant site means all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof. A unit or group of units within a contiguous property that are not under common control (e.g., a wastewater treatment unit or solvent recovery unit located at the site but is sold to a different company) is a different plant site.

Point-of-delivery means the point at the boundary or within the plant site where the owner or operator first accepts custody, takes possession, or assumes responsibility for the management of an off-site material stream managed in a waste management operation or recovery operation specified in § 63.680 (a)(2)(i) through (a)(2)(vi) of this subpart. The characteristics of an off-site material stream are determined prior to combining the off-site material stream with other off-site material streams or with any other materials.

Point-of-treatment means a point where the off-site material to be treated in accordance with § 63.683(b)(1)(ii) of this subpart exits the treatment process. The characteristics shall be determined before this material is conveyed, handled, or otherwise managed in such a manner that the material has the potential to volatilize to the atmosphere.

Process heater means an enclosed combustion device that transfers heat released by burning fuel directly to process streams or to heat transfer liquids other than water.

Process vent means any open-ended pipe, stack, or duct that allows the passage of gases, vapors, or fumes to the atmosphere and this passage is caused by mechanical means (such as compressors or vacuum-producing systems) or by process-related means (such as volatilization produced by heating). For the purpose of this subpart, a process vent is not a stack or duct used to exhaust combustion products from a boiler, furnace, process heater, incinerator, or other combustion device.

Recovery operation means the collection of off-site material management units, process vents, and equipment components used at a plant site to manage an off-site material stream from the point-of-delivery through the point where the material has been recycled, reprocessed, or re-refined to obtain the intended product or to remove the physical and chemical impurities of concern.

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 purpose 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 this vapor headspace 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, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Separator means a waste management unit, generally a tank, used to separate oil or organics from water. A separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to any additional treatment units such as an air flotation unit clarifier or biological treatment unit. Examples of a separator include, but are not limited to, an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

Single-seal system means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

Surface impoundment means a unit that is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquids. Examples of surface impoundments include holding, storage, settling, and aeration pits, ponds, and lagoons.

Tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

Transfer system means a stationary system for which the predominant function is to convey liquids or solid materials from one point to another point within a waste management operation or recovery operation. For the purpose of this subpart, the conveyance of material using a container (as defined for this subpart) or a self-propelled vehicle (e.g., a front-end loader) is not a transfer system. Examples of a transfer system include but are not limited to a pipeline, an individual drain system, a gravity-operated conveyor (such as a chute), and a mechanically-powered conveyor (such as a belt or screw conveyor).

Temperature monitoring device means a piece of equipment used to monitor temperature and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius (°C) or ±1.2 degrees °C, whichever value is greater.

Treatment process means a process in which an off-site material stream is physically, chemically, thermally, or biologically treated to destroy, degrade, or remove hazardous air pollutants contained in the off-site material. A treatment process can be composed of a single unit (e.g., a steam stripper) or a series of units (e.g., a wastewater treatment system). A treatment process can be used to treat one or more off-site material streams at the same time.

Used oil means any oil refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. This definition is the same definition of ''used oil'' in 40 CFR 279.1.

Used solvent means a solvent composed of a mixture of aliphatic hydrocarbons or a mixture of one and two ring aromatic hydrocarbons that has been used and as a result of such use is contaminated by physical or chemical impurities.

Vapor-mounted seal means a continuous seal that is mounted such that there is a vapor space between the liquid in the unit and the bottom of the seal.

Volatile organic hazardous air pollutant concentration or VOHAP concentration means the fraction by weight of the HAP listed in Table 1 of this subpart that are contained in an off-site material. For the purpose of this subpart, VOHAP concentration is determined in accordance with the test methods and procedures specified in § 63.694 (b) and (c) of this subpart.

Waste means a material generated from industrial, commercial, mining, or agricultural operations or from community activities that is discarded, discharged, or is being accumulated, stored, or physically, chemically, thermally, or biologically treated prior to being discarded or discharged.

Waste management operation means the collection of off-site material management units, process vents, and equipment components used at a plant site to manage an off-site material stream from the point-of-delivery to the point where the waste exits or is discharged from the plant site or the waste is placed for on-site disposal in a unit not subject to this subpart (e.g., a waste incinerator, a land disposal unit).

Waste stabilization process means any physical or chemical process used to either reduce the mobility of hazardous constituents in a waste or eliminate free liquids as determined by Test Method 9095—Paint Filter Liquids Test in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846, Third Edition, September 1986, as amended by Update I, November 15, 1992. A waste stabilization process includes mixing the waste with binders or other materials, and curing the resulting waste and binder mixture. Other synonymous terms used to refer to this process are ''waste fixation'' or ''waste solidification.'' A waste stabilization process does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid.

§ 63.682 [Reserved]

§ 63.683 Standards: General.

(a) This section applies to owners and operators of affected sources as defined in § 63.680(c) of this subpart.

(b) The owner or operator shall control the air emissions from each affected source in accordance with the following requirements:

(1) For each off-site material management unit that is part of an affected source, the owner or operator shall perform one of the following except when the unit is exempted under provisions of paragraph (c) of this section:

(i) Install and operate air emission controls on the off-site material management unit in accordance with the standards specified in §§ 63.685 through 63.689 of this subpart, as applicable to the unit;

(ii) Treat the off-site material to remove or destroy the HAP in accordance with the treatment standards specified in § 63.684 of this subpart before placing the material in the off-site material management unit; or

(iii) Determine that the average VOHAP concentration of each off-site material stream managed in the off-site material unit remains at a level less than 500 parts per million by weight (ppmw) based on the HAP content of the off-site material stream at the point-of-delivery. The owner or operator shall perform an initial determination of the average VOHAP concentration of each off-site material stream using the procedures specified in § 63.694(b) of this subpart before the first time any portion of the off-site material stream is placed in the unit. Thereafter, the owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the off-site material stream.

(2) For each process vent that is part of an affected source, the owner or operator shall control the HAP emitted from the process vent by implementing one of the following control measures.

(i) Install and operate air emission controls on the process vent in accordance with the standards specified in § 63.690 of this subpart.

(ii) Determine that the average VOHAP concentration of each off-site material stream managed in the unit on which the process vent is used remains at a level less than 500 parts per million by weight (ppmw) based on the HAP content of the off-site material stream at the point-of-delivery. The owner or operator shall perform an initial determination of the average VOHAP concentration of each off-site material stream using the procedures specified in § 63.694(b) of this subpart before the first time any portion of the off-site material stream is placed in the unit. Thereafter, the owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the off-site material stream.

(3) For each equipment component that is part of an affected source and meets all of the criteria specified in paragraphs (b)(3)(i) through (b)(3)(iii) of this section, the owner or operator shall control the HAP emitted from equipment leaks by implementing control measures in accordance with the standards specified in § 63.691 of this subpart.

(i) The equipment component contains or contacts off-site material having a total HAP concentration equal to or greater than 10 percent by weight;

(ii) The equipment piece is a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system; and

(iii) The equipment piece is intended to operate 300 hours or more during a 12-month period.

(c) Exempted off-site material management units. An off-site material management unit is exempted from the requirements specified in paragraph (b) of this section when the unit meets any one of the exemptions provided in paragraphs (c)(1) through (c)(5) of this section.

(1) An off-site material management unit is exempted from the requirements specified in paragraph (b) of this section if the unit is also subject to another subpart under 40 CFR part 61 or 40 CFR part 63, and the owner or operator is controlling the HAP listed in Table 1 of this subpart that are emitted from the unit in compliance with the provisions specified in the other applicable subpart.

(2) One or more off-site material management units located at a plant site can be exempted from the requirements specified in paragraph (b) of this section at the discretion of the owner or operator provided that the total annual quantity of HAP contained in the off-site material placed in the off-site material management units selected by the owner or operator to be exempted under this provision is less than 1 megagram per year. This total annual HAP quantity for the off-site material shall be based on the total quantity of the HAP listed in Table 1 of this subpart as determined at the point where the off-site material is placed in each exempted unit. For the off-site material management unit selected by the owner or operator to be exempted from the under this provision, the owner or operator shall meet the following requirements:

(i) Documentation shall be prepared by the owner or operator and maintained at the plant site to support the initial determination of the total annual HAP quantity of the off-site material. This documentation shall include identification of each off-site material management unit selected by the owner or operator to be exempted under paragraph (c)(2) of this section and the basis for determining the HAP content of the off-site material. The owner or operator shall perform a new determination when the extent of changes to the quantity or composition of the off-site material placed in the exempted units could cause the total annual HAP content in the off-site material to exceed 1 megagram per year.

(ii) Each of the off-site material management units exempted under paragraph (c)(2) of this section shall be permanently marked in such a manner that it can be readily identified as an exempted unit from the other off-site material management units located at the plant site.

(3) A tank or surface impoundment is exempted from the requirements specified in paragraph (b) of this section if the unit is used for a biological treatment process that destroys or degrades the HAP contained in the material entering the unit, such that either of the following conditions is met:

(i) The HAP reduction efficiency (R) for the process is equal to or greater than 95 percent, and the HAP biodegradation efficiency (R_{bio}) for the process is equal to or greater than 95 percent. The HAP reduction efficiency (R) shall be determined using the procedure specified in § 63.694(g) of this subpart. The HAP biodegradation efficiency (R_{bio}) shall be determined in accordance with the requirements of § 63.694(h) of this subpart.

(ii) The total actual HAP mass removal rate (MR_{bio}) as determined in accordance with the requirements of § 63.694(i) of this subpart for the off-site material treated by the process is equal to or greater than the required HAP mass removal rate (RMR) as determined in accordance with the requirements of § 63.694(e) of this subpart.

(4) An off-site material management unit is exempted from the requirements specified in paragraph (b) of this section if the off-site material placed in the unit is a hazardous waste that meets the numerical concentration limits, applicable to the hazardous waste, as specified in 40 CFR part 268—Land Disposal Restrictions under both of the following tables:

(i) Table ''Treatment Standards for Hazardous Waste'' in 40 CFR 268.40; and

(ii) Table UTS—''Universal Treatment Standards'' in 40 CFR 268.48.

(5) A tank used for bulk feed of off-site material to a waste incinerator is exempted from the requirements specified in paragraph (b) of this section if all of the following conditions are met:

(i) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under 40 CFR part 61, subpart FF—National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year;

(ii) The enclosure and control device serving the tank were installed and began operation prior to July 1, 1996; and

(iii) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, Appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' annually.

§ 63.684 Standards: Off-Site Material Treatment.

(a) The provisions of this section apply to the treatment of off-site material to control air emissions for which § 63.683(b)(1)(ii) of this subpart references the requirements of this section for such treatment.

(b) The owner or operator shall remove or destroy the HAP contained in off-site material streams to be managed in the off-site material management unit in accordance with § 63.683(b)(1)(ii) of this subpart using a treatment process that continuously achieves, under normal operations, one of the following performance levels for the range of off-site material stream compositions and quantities expected to be treated:

(1) *VOHAP concentration.* The treatment process shall reduce the VOHAP concentration of the off-site material using a means, other than by dilution, to achieve one of the following performance levels, as applicable:

(i) In the case when every off-site material stream entering the treatment process has an average VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery, then the VOHAP concentration of the off-site material shall be reduced to a level that is less than 500 ppmw at the point-of-treatment.

(ii) In the case when the off-site material streams entering the treatment process include off-site material streams having average VOHAP concentrations less than 500 ppmw at the point-of-delivery, then the VOHAP concentration of the off-site material shall be reduced to a level at the point-of-treatment that is either:

(A) Less than the VOHAP concentration limit (C_R) established for the treatment process using the procedure specified in § 63.694(d) of this subpart; or

(B) Less than the lowest VOHAP concentration determined for each of the off-site material streams entering the treatment process as determined by the VOHAP concentration of the off-site material at the point-of-delivery.

(2) *HAP mass removal.* The treatment process shall achieve a performance level such that the total quantity of HAP actually removed from the off-site material stream (MR) is equal to or greater than the required mass removal (RMR) established for the off-site material stream using the procedure specified in § 63.694(e) of this subpart. The MR for the off-site material streams shall be determined using the procedures specified in § 63.694(f) of this subpart.

(3) *HAP reduction efficiency.* The treatment process shall achieve a performance level such that the total quantity of HAP in the off-site material stream is reduced to one of the following performance levels, as applicable:

(i) In the case when the owner or operator determines that off-site material stream entering the treatment process has an average VOHAP concentration less than 10,000 ppmw at the point-of-delivery, then the treatment process shall achieve a performance level such that the total quantity of HAP in the off-site material stream is reduced by 95 percent or more. The HAP reduction efficiency (R) for the treatment process shall be determined using the procedure specified in § 63.694(g) of this subpart. The average VOHAP concentration of the off-site material stream at the point-of-delivery shall be determined using the procedure specified in § 63.694(b) of this subpart.

(ii) In the case when the off-site material stream entering the treatment process has an average VOHAP concentration equal to or greater than 10,000 ppmw at the point-of-delivery, then the treatment process shall achieve a performance level such that the total quantity of HAP in the off-site material stream is reduced by 95 percent or more, and the average VOHAP concentration of the off-site material at the point-of-treatment is less than 100 parts per million by weight (ppmw). The HAP reduction efficiency (R) for the treatment process shall be determined using the procedure specified in § 63.694(g) of this subpart. The average VOHAP concentration of the off-site material stream at the point-of-treatment shall be determined using the procedure specified in § 63.694(c) of this subpart.

(4) *Biological degradation.* The treatment process shall achieve either of the following performance levels:

(i) The HAP reduction efficiency (R) for the treatment process is equal to or greater than 95 percent, and the HAP biodegradation efficiency (R_{bio}) for the treatment process is equal to or greater than 95 percent. The HAP reduction efficiency (R) shall be determined using the procedure specified in § 63.694(g) of this subpart. The HAP biodegradation efficiency (R_{bio}) shall be determined in accordance with the requirements of § 63.694(h) of this subpart.

(ii) The total quantity of HAP actually removed from the off-site material stream by biological degradation (MR_{bio}) shall be equal to or greater than the required mass removal (RMR) established for the off-site material stream using the procedure specified in § 63.694(e) of this subpart. The MR_{bio} of the off-site material stream shall be determined using the procedures specified in § 63.694(i) of this subpart.

(5) *Incineration.* The HAP contained in the off-site material stream shall be destroyed using one of the following combustion devices:

(i) An incinerator for which the owner or operator has either:

(A) Been issued a final permit under 40 CFR part 270, and the incinerator is designed and operated in accordance with the requirements of 40 CFR 264 subpart O—Incinerators, or

(B) Has certified compliance with the interim status requirements of 40 CFR 265 subpart O—Incinerators.

(ii) A boiler or industrial furnace for which the owner or operator has either:

(A) Been issued a final permit under 40 CFR part 270, and the combustion unit is designed and operated in accordance with the requirements of 40 CFR part 266 subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces, or

(B) Has certified compliance with the interim status requirements of 40 CFR part 266 subpart H Hazardous Waste Burned in Boilers and Industrial Furnaces.

(c) For a treatment process that removes the HAP from the off-site material by a means other than thermal destruction or biological degradation to achieve one of the performances levels specified in paragraph (b)(1), (b)(2), or (b)(3) of this section, the owner or operator shall manage the HAP removed from the off-site material in such a manner to minimize release of these HAP to the atmosphere, to the extent practical. Examples of HAP emission control measures that meet the requirements of this paragraph include managing the HAP removed from the off-site material in units that use air emission controls in accordance with the standards specified in §§ 63.685 through 63.689 of this subpart, as applicable to the unit.

(d) When the owner or operator treats the off-site material to meet one of the performance levels specified in paragraphs (b)(1) through (b)(4) of this section, the owner or operator shall demonstrate that the treatment process achieves the selected performance level for the range of expected off-site material stream compositions expected to be treated. An initial demonstration shall be performed as soon as possible but no later than 30 days after first time an owner or operator begins using the treatment process to manage off-site material streams in accordance with the requirements of § 63.683(b)(1)(ii) of this subpart. Thereafter, the owner or operator shall review and update, as necessary, this demonstration at least once every 12 months following the date of the initial demonstration.

(e) When the owner or operator treats the off-site material to meet one of the performance levels specified in paragraphs (b)(1) through (b)(4) of this section, the owner or operator shall ensure that the treatment process is

achieving the applicable performance requirements by continuously monitoring the operation of the process when it is used to treat off-site material:

(1) A continuous monitoring system shall be installed and operated for each treatment that measures operating parameters appropriate for the treatment process technology. This system shall include a continuous recorder that records the measured values of the selected operating parameters. The monitoring equipment shall be installed, calibrated, and maintained in accordance with the equipment manufacturer's specifications. The continuous recorder shall be a data recording device that records either an instantaneous data value at least once every 15 minutes or an average value for intervals of 15 minutes or less.

(2) For each monitored operating parameter, the owner or operator shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate, to define the range of conditions at which the treatment process must be operated to continuously achieve the applicable performance requirements of this section.

(3) When the treatment process is operating to treat off-site material, the owner or operator shall inspect the data recorded by the continuous monitoring system on a routine basis and operate the treatment process such that the actual value of each monitored operating parameter is greater than the minimum operating parameter value or less than the maximum operating parameter value, as appropriate, established for the treatment process.

(f) The owner or operator shall maintain records for each treatment process in accordance with the requirements of § 63.696 of this subpart.

(g) The owner or operator shall prepare and submit reports for each treatment process in accordance with the requirements of § 63.697 of this subpart.

(h) The Administrator may at any time conduct or request that the owner or operator conduct testing necessary to demonstrate that a treatment process is achieving the applicable performance requirements of this section. The testing shall be conducted in accordance with the applicable requirements of this section. The Administrator may elect to have an authorized representative observe testing conducted by the owner or operator.

§ 63.685 Standards: Tanks.

(a) The provisions of this section apply to the control of air emissions from tanks for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each tank subject to this section in accordance with the following applicable requirements:

(1) For a tank that is part of an existing affected source but the tank is not used to manage off-site material having a maximum organic vapor pressure that is equal to or greater than 76.6 kPa nor is the tank used for a waste stabilization process as defined in § 63.681 of this subpart, the owner or operator shall determine whether the tank is required to use either Tank Level 1 controls or Tank Level 2 controls as specified for the tank by Table 3 of this subpart based on the off-site material maximum HAP vapor pressure and the tank's design capacity. The owner or operator shall control air emissions from a tank required by Table 3 to use Tank Level 1 controls in accordance with the requirements of paragraph (c) of this section. The owner or operator shall control air emissions from a tank required by Table 3 to use Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(2) For a tank that is part of a new affected source but the tank is not used to manage off-site material having a maximum organic vapor pressure that is equal to or greater than 76.6 kPa nor is the tank used for a waste stabilization process as defined in § 63.681 of this subpart, the owner or operator shall determine whether the tank is required to use either Tank Level 1 controls or Tank Level 2 controls as specified for the tank by Table 4 of this subpart based on the off-site material maximum HAP vapor pressure and the tank's design capacity. The owner or operator shall control air emissions from a tank required by Table 4 to use Tank Level 1 controls in accordance with the requirements of paragraph (c) of this section. The owner or operator shall control air emissions from a tank required by Table 4 to use Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(3) For a tank that is used for a waste stabilization process, the owner or operator shall control air emissions from the tank by using Tank Level 2 controls in accordance with the requirements of paragraph (d) of this section.

(4) For a tank that manages off-site material having a maximum organic vapor pressure that is equal to or greater than the 76.6 kPa, the owner or operator shall control air emissions from the tank by venting the tank through a closed-vent system to a control device in accordance with the requirements of paragraph (g) of this section.

(c) Owners and operators controlling air emissions from a tank using Tank Level 1 controls shall meet the following requirements:

(1) The owner or operator shall determine the maximum HAP vapor pressure for an off-site material to be managed in the tank using Tank Level 1 controls before the first time the off-site material is placed in the tank. The maximum HAP vapor pressure shall be determined using the procedures specified in § 63.694(j) of this subpart. Thereafter, the owner or operator shall perform a new determination whenever changes to the off-site material managed in the tank could potentially cause the maximum HAP vapor pressure to increase to a level that is equal to or greater than the maximum HAP vapor pressure limit for the tank design capacity category specified in Table 3 or Table 4 of this subpart, as applicable to the tank.

(2) The owner or operator shall control air emissions from the tank using a fixed-roof in accordance with the provisions specified in 40 CFR 63 subpart OO—National Emission Standards for Tanks—Level 1.

(d) Owners and operators controlling air emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in paragraph (e) of this section;

(2) A tank equipped with an external floating roof in accordance with the requirements specified in paragraph (f) of this section;

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in paragraph (g) of this section;

(4) A pressure tank designed and operated in accordance with the requirements specified in paragraph (h) of this section; or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in paragraph (i) of this section.

(e) The owner or operator who elects to control air emissions from a tank using a fixed-roof with an internal floating roof shall meet the requirements specified in paragraphs (e)(1) through (e)(3) of this section.

(1) The tank shall be equipped with a fixed roof and an internal floating roof

in accordance with the following requirements:

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in § 63.681 of this subpart; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the following specifications:

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

(C) Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.

(D) Each automatic bleeder vent and rim space vent shall be gasketed.

(E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(ii) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(iii) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed (i.e., no visible gaps). Rim spaces vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

(3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified in § 63.695(b) of this subpart.

(f) The owner or operator who elects to control tank emissions by using an external floating roof shall meet the requirements specified in paragraphs (f)(1) through (f)(3) of this section.

(1) The owner or operator shall design the external floating roof in accordance with the following requirements:

(i) The external floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in § 63.681 of this subpart. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters (cm^2) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters (cm). If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters (cm^2) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters (cm).

(iii) The external floating roof shall be meet the following specifications:

(A) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float wells shall be equipped with covers designed to be bolted or fastened when the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vents shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device which closes off the surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device must be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

(iv) Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall be secured in the closed position at all times except when the hatch or well must be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified in § 63.695(b) of this subpart.

(g) The owner or operator who controls tank air emissions by venting to a control device shall meet the requirements specified in paragraphs (g)(1) through (g)(3) of this section.

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 63.693 of this subpart.

(2) Whenever an off-site material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of separator.

(ii) Opening of a safety device, as defined in § 63.681 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in § 63.695 of this subpart.

(h) The owner or operator who elects to control tank air emissions by using a pressure tank shall meet the following requirements.

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) All tank openings shall equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in § 63.694(k) of this subpart.

(3) Whenever an off-site material is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except in the event that opening of a safety device, as defined in § 63.681 of this subpart, is required to avoid an unsafe condition.

(i) The owner or operator who elects to control air emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in paragraphs (i)(1) through (i)(4) of this section.

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, Appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in § 63.693 of this subpart.

§ 63.686 Standards: Oil-water and organic-water separators.

(a) The provisions of this section apply to the control of air emissions from oil-water separators and organic-water separators for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from the separator subject to this section by installing and operating one of the following:

(1) A floating roof in accordance with all applicable provisions specified in 40 CFR 63 subpart VV—National Emission Standards for Oil-Water Separators and Organic-Water Separators. For portions of the separator where it is infeasible to install and operate a floating roof, such as over a weir mechanism, the owner or operator shall comply with the requirements specified in paragraph (b)(2) of this section.

(2) A fixed-roof that is vented through a closed-vent system to a control device in accordance with all applicable provisions specified in 40 CFR 63 subpart VV—National Emission Standards for Oil-Water Separators and Organic-Water Separators.

§ 63.687 Standards: Surface impoundments.

(a) The provisions of this section apply to the control of air emissions from surface impoundments for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each surface impoundment subject to this section by installing and operating one of the following, as relevant to the surface impoundment design and operation:

(1) A floating membrane cover in accordance with the applicable provisions specified in 40 CFR 63 subpart QQ—National Emission Standards for Surface Impoundments; or

(2) A cover that is vented through a closed-vent system to a control device in accordance with all applicable

provisions specified in 40 CFR 63 subpart QQ—National Emission Standards for Surface Impoundments.

§ 63.688 Standards: Containers.

(a) The provisions of this section apply to the control of air emissions from containers for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control air emissions from each container subject to this section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in paragraph (c) of this section apply to the container.

(1) For a container having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3, the owner or operator shall control air emissions from the container in accordance with the standards for Container Level 1 controls as specified in 40 CFR 63 subpart PP—National Emission Standards for Containers.

(2) For a container having a design capacity greater than 0.46 m^3 and the container is not in light-material service as defined in § 63.681 of this subpart, the owner or operator shall control air emissions from the container in accordance with the standards for Container Level 1 controls as specified in 40 CFR 63 subpart PP—National Emission Standards for Containers.

(3) For a container having a design capacity greater than 0.46 m^3 and the container is in light-material service as defined in § 63.681 of this subpart, the owner or operator shall control air emissions from the container in accordance with the standards for Container Level 2 controls as specified in 40 CFR 63 subpart PP—National Emission Standards for Containers.

(c) When a container subject to this subpart and having a design capacity greater than 0.1 m^3 is used for treatment of an off-site material by a waste stabilization process as defined in § 63.681 of this subpart, the owner or operator shall control air emissions from the container at those times during the process when the off-site material in container is exposed to the atmosphere in accordance with the standards for Container Level 3 controls as specified in 40 CFR 63 subpart PP—National Emission Standards for Containers.

§ 63.689 Standards: Transfer systems.

(a) The provisions of this section apply to the control of air emissions from transfer systems for which § 63.683(b)(1)(i) of this subpart references the use of this section for such air emission control.

(b) For each transfer system that is subject to this section and is an individual drain system, the owner or operator shall control air emissions from in accordance with the standards specified in 40 CFR 63 subpart RR—National Emission Standards for Individual Drain Systems.

(c) For each transfer system that is subject to this section but is not an individual drain system, the owner or operator shall control air emissions by installing and operating one of the following:

(1) A transfer system that uses covers in accordance with the requirements specified in paragraph (d) of this section.

(2) A transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange).

(3) A transfer system that is enclosed and vented through a closed vent system to a control device in accordance with the following requirements:

(i) The transfer system is designed and operated such that an internal pressure in the vapor headspace in the system is maintained at a level less than atmospheric pressure when the control device is operating, and

(ii) The closed vent system and control device are designed and operated in accordance with the requirements of § 63.693 of this subpart.

(d) Owners and operators controlling air emissions from a transfer system using covers in accordance with the provisions of paragraph (c)(1) of this section shall meet the following requirements:

(1) The cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the off-site material as it is conveyed by the transfer system except for the openings at the inlet and outlet to the transfer system through which the off-site material passes. The inlet and outlet openings used for passage of the off-site material through the transfer system shall be the minimum size required for practical operation of the transfer system.

(2) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section joints or between the interface of the cover edge and its mounting.

(3) Except for the inlet and outlet openings to the transfer system through which the off-site material passes, each opening in the cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device.

(4) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the material or its vapors conveyed in the transfer system; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the transfer system on which the cover is installed.

(5) Whenever an off-site material is in the transfer system, the cover shall be installed with each closure device secured in the closed position except as follows:

(i) Opening of closure devices or removal of the cover is allowed to provide access to the transfer system for performing routine inspection, maintenance, repair, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a hatch or remove the cover to repair conveyance equipment mounted under the cover or to clear a blockage of material inside the system. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable.

(ii) Opening of a safety device, as defined in § 63.681 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(6) The owner or operator shall inspect the air emission control equipment in accordance with the requirements specified in § 63.695 of this subpart.

§ 63.690 Standards: Process vents.

(a) The provisions of this section apply to the control of air emissions from process vents for which § 63.683(b)(2)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control HAP emitted from the process vent within the affected source by connecting each process vent through a closed-vent system to a control device that is designed and operated in

accordance with the standards specified in § 63.693 of this subpart with the following exceptions.

(1) Each individual control device used to comply with the requirements of this section is not required to meet the level of performance, as applicable to the particular control technology used, specified in §§ 63.693 (d)(1), (e)(1), (f)(1)(i), and (g)(1)(i) of this subpart provided that these control devices are designed and operated to achieve a total reduction of 95 weight percent or more in the quantity of HAP, listed in Table 1 of this subpart, that is emitted from all process vents within the affected source.

(2) For the purpose of complying with this section, a device for which the predominate function is the recovery or capture of solvents or other organics for use, reuse, or sale (e.g., a primary condenser or a solvent recovery unit) is not a control device.

§ 63.691 Standards: Equipment leaks.

(a) The provisions of this section apply to the control of air emissions from equipment leaks for which § 63.683(b)(3) of this subpart references the use of this section for such air emission control.

(b) The owner or operator shall control the HAP emitted from equipment leaks in accordance with the applicable provisions of either:

(1) Section 61.242 through § 61.247 in 40 CFR Part 61 subpart V—National Emission Standards for Equipment Leaks; or

(2) Section 63.162 through § 63.182 in 40 CFR Part 63 subpart H—National Emission Standards for Organic Hazardous Air Pollutants from Equipment Leaks.

§ 63.692 [Reserved]

§ 63.693 Standards: Closed-vent systems and control devices.

(a) The provisions of this section apply to closed-vent systems and control devices used to control air emissions for which another standard references the use of this section for such air emission control.

(b) For each closed-vent system and control device used to comply with this section, the owner or operator shall meet the following requirements:

(1) The closed-vent system shall be designed and operated in accordance with the requirements specified in paragraph (c) of this section.

(2) The control device shall remove, recover, or destroy HAP at a level of performance that achieves the requirements applicable to the particular control device technology as specified in paragraphs (d) through (h) of this section. The owner or operator shall demonstrate that the control device achieves the applicable performance requirements by either conducting a performance test or preparing a design analysis for the control device in accordance with the requirements specified in this section.

(3) Whenever gases or vapors containing HAP are vented through a closed-vent system connected to a control device used to comply with this section, the control device shall be operating except at the following times:

(i) The control device may be bypassed for the purpose of performing planned routine maintenance of the closed vent system or control device in situations when the routine maintenance cannot be performed during periods that the emission point vented to the control device is shutdown. On an annual basis, the total time that the closed-vent system or control device is bypassed to perform routine maintenance shall not exceed 240 hours per each 12 month period.

(ii) The control device may be bypassed for the purpose of correcting a malfunction of the closed vent system or control device. The owner or operator shall perform the adjustments or repairs necessary to correct the malfunction as soon as practicable after the malfunction is detected.

(4) The owner or operator shall ensure that the control device is achieving the performance requirements specified in paragraph (b)(2) of this section by continuously monitoring the operation of the control device as follows:

(i) A continuous monitoring system shall be installed and operated for each control device that measures operating parameters appropriate for the control device technology as specified in paragraphs (d) through (h) of this section. This system shall include a continuous recorder that records the measured values of the selected operating parameters. The monitoring equipment shall be installed, calibrated, and maintained in accordance with the equipment manufacturer's specifications. The continuous recorder shall be a data recording device that records either an instantaneous data value at least once every 15 minutes or an average value for intervals of 15-minutes or less.

(ii) For each monitored operating parameter, the owner or operator shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate, to define the range of conditions at which the control device must be operated to continuously achieve the applicable performance requirements of this section. Each minimum or maximum operating parameter value shall be established as follows:

(A) If the owner or operator conducts a performance test to demonstrate control device performance, then the minimum or maximum operating parameter value shall be established based on values measured during the performance test and supplemented, as necessary, by control device design analysis and manufacturer recommendations.

(B) If the owner or operator uses a control device design analysis to demonstrate control device performance, then the minimum or maximum operating parameter value shall be established based on the control device design analysis and the control device manufacturer's recommendations.

(C) When the control device is required to be operating in accordance with the provisions of paragraph (b)(3) of this section, the owner or operator shall inspect the data recorded by the continuous monitoring system on a routine basis and operate the control device such that the actual value of each monitored operating parameter is greater than the minimum operating parameter value or less than the maximum operating parameter value, as appropriate, established for the control device.

(5) The owner or operator shall inspect and monitor the closed-vent system in accordance with the requirements of § 63.695(c) of this subpart.

(6) The owner or operator shall maintain records for each closed-vent system and control device in accordance with the requirements of § 63.696 of this subpart.

(7) The owner or operator shall prepare and submit reports for each closed-vent system and control device in accordance with the requirements of § 63.697 of this subpart.

(8) The Administrator may at any time conduct or request that the owner or operator conduct a performance test to demonstrate that a closed-vent system and control device achieves the applicable performance requirements of this section. The performance test shall be conducted in accordance with the requirements of § 63.694(l) of this subpart. The Administrator may elect to have an authorized representative observe a performance test conducted by the owner or operator. Should the results of this performance test not agree with the determination of control device performance based on a design analysis, then the results of the performance test

shall be used to establish compliance with this section.

(c) Closed-vent system requirements.

(1) The vent stream required to be controlled shall be conveyed to the control device by either of the following closed-vent systems:

(i) A closed-vent system that is designed to operate with no detectable organic emissions using the procedure specified in § 63.694(k) of this subpart; or

(ii) A closed-vent system that is designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gage or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(2) In situations when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in paragraph (c)(2)(i) or a seal or locking device as specified in paragraph (c)(2)(ii) of this section. For the purpose of complying with this paragraph, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

(i) If a flow indicator is used to comply with paragraph (c)(2) of this section, the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For this paragraph, a flow indicator means a device which indicates either the presence of gas or vapor flow in the bypass line.

(ii) If a seal or locking device is used to comply with paragraph (c)(2) of this section, the device shall be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(d) Carbon adsorption control device requirements.

(1) The carbon adsorption system shall be designed and operated to achieve one of the following performance specifications:

(i) Recover 95 percent or more, on a weight-basis, of the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the carbon adsorption system; or

(ii) Recover 95 percent or more, on a weight-basis, of the total HAP listed in Table 1 of this subpart contained in the vent stream entering the carbon adsorption system.

(2) The owner or operator shall demonstrate that the carbon adsorption system achieves the performance requirements of paragraph (d)(1) of this section by one of the following methods:

(i) Conduct a performance test in accordance with the requirements of § 63.694(l) of this subpart.

(ii) Prepare a design analysis. This analysis shall address the vent stream characteristics and control device operating parameters for the applicable carbon adsorption system type as follows:

(A) For a regenerable carbon adsorption system, the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, adsorption cycle time, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total regeneration steam flow over the period of each complete carbon bed regeneration cycle, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of the carbon.

(B) For a nonregenerable carbon adsorption system (e.g., a carbon canister), the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, carbon bed capacity, activated carbon type and working capacity, and design carbon replacement interval based on the total carbon working capacity of the control device and emission point operating schedule.

(3) To meet the monitoring requirements of paragraph (b)(4) of this section, the owner or operator shall use one of the following continuous monitoring systems:

(i) For a regenerative-type carbon adsorption system, an integrating regeneration stream flow monitoring device equipped with a continuous recorder and a carbon bed temperature monitoring device for each adsorber vessel equipped with a continuous recorder. The integrating regeneration stream flow monitoring device shall have an accuracy of ±10 percent and measure the total regeneration stream mass flow during the carbon bed regeneration cycle. The temperature monitoring device shall measure the carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle and the duration of the carbon bed steaming cycle.

(ii) A continuous monitoring system that measures the concentration level of organic compounds in the exhaust vent stream from the control device using an organic monitoring device equipped with a continuous recorder.

(iii) A continuous monitoring system that measures other alternative operating parameters upon approval of the Administrator as specified in 40 CFR 63.8 (f)(1) through (f)(5) of this part.

(4) The owner or operator shall manage the carbon used for the carbon adsorption system, as follows:

(i) Following the initial startup of the control device, all carbon in the control device shall be replaced with fresh carbon on a regular, predetermined time interval that is no longer than the carbon service life established for the carbon adsorption system.

(ii) The spent carbon removed from the carbon adsorption system shall be managed in one of the following ways:

(A) Regenerated or reactivated in a thermal treatment unit that is designed and operated in accordance with the requirements of 40 CFR 264 subpart X and is permitted under 40 CFR part 270 of this chapter, or certified to be in compliance with the interim status requirements of 40 CFR 265 subpart P of this chapter.

(B) Burned in a hazardous waste incinerator that is designed and operated in accordance with the requirements of 40 CFR 264 subpart O and is permitted under 40 CFR part 270 of this chapter, or certified to be in compliance with the interim status requirements of 40 CFR part 265 subpart O.

(C) Burned in a boiler or industrial furnace that is designed and operated in accordance with the requirements of 40 CFR 266 subpart H and is permitted under 40 CFR part 270 of this chapter, or certified to be in compliance with the interim status requirements of 40 CFR part 266 subpart H of this chapter.

(e) Condenser control device requirements.

(1) The condenser shall be designed and operated to achieve one of the following performance specifications:

(i) Recover 95 percent or more, on a weight-basis, of the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the condenser; or

(ii) Recover 95 percent or more, on a weight-basis, of the total HAP, listed in Table 1 of this subpart, contained in the vent stream entering the condenser.

(2) The owner or operator shall demonstrate that the condenser achieves the performance requirements of paragraph (e)(1) of this section by one of the following methods:

(i) Conduct performance tests in accordance with the requirements of § 63.694(l) of this subpart.

(ii) Prepare a design analysis. This design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and the design average temperatures of the coolant fluid at the condenser inlet and outlet.

(3) To meet the continuous monitoring requirements of paragraph (b)(3)(ii) of this section, the owner or operator shall use one of the following continuous monitoring systems:

(i) A temperature monitoring device equipped with a continuous recorder. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.

(ii) A continuous monitoring system that measures the concentration level of organic compounds in the exhaust vent stream from the control device using an organic monitoring device equipped with a continuous recorder.

(iii) A continuous monitoring system that measures other alternative operating parameters upon approval of the Administrator as specified in 40 CFR 63.8 (f)(1) through (f)(5) of this part.

(f) Vapor incinerator control device requirements.

(1) The vapor incinerator shall be designed and operated to achieve one of the following performance specifications:

(i) Destroy the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a weight-basis, or

(B) To achieve a total incinerator outlet concentration for the TOC, less methane and ethane, of less than or equal to 20 parts per million by volume (ppmv) on a dry basis corrected to 3 percent oxygen.

(ii) Destroy the HAP listed in Table 1 of this subpart contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a total HAP weight-basis, or

(B) To achieve a total incinerator outlet concentration for the HAP, listed in table 1 of this subpart, of less than or equal to 20 parts per million by volume (ppmv) on a dry basis corrected to 3 percent oxygen.

(iii) Maintain the conditions in the vapor incinerator combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher.

(2) The owner or operator shall demonstrate that the vapor incinerator achieves the performance requirements of paragraph (f)(1) of this section by one of the following methods:

(i) Conduct performance tests in accordance with the requirements of § 63.694(l) of this subpart; or

(ii) Prepare a design analysis. The design analysis shall include analysis of the vent stream characteristics and control device operating parameters for the applicable vapor incinerator type as follows:

(A) For a thermal vapor incinerator, the design analysis shall address the vent stream composition, constituent concentrations, and flow rate and shall establish the design minimum and average temperatures in the combustion chamber and the combustion chamber residence time.

(B) For a catalytic vapor incinerator, the design analysis shall address the vent stream composition, constituent concentrations, and flow rate and shall establish the design minimum and average temperatures across the catalyst bed inlet and outlet, and the design service life of the catalyst.

(3) To meet the monitoring requirements of paragraph (b)(4) of this section, the owner or operator shall use one of the following continuous monitoring systems, as applicable:

(i) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

(ii) For a catalytic vapor incinerator, a temperature monitoring device capable of monitoring temperature at two locations equipped with a continuous recorder. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For either type of vapor incinerator, a continuous monitoring system that measures the concentration level of organic compounds in the exhaust vent stream from the control device using an organic monitoring device equipped with a continuous recorder.

(iv) For either type of vapor incinerator, a continuous monitoring system that measures alternative operating parameters other than those specified in paragraphs (f)(3)(i) or (f)(3)(ii) of this section upon approval of the Administrator as specified in 40 CFR 63.8 (f)(1) through (f)(5) of this part.

(g) Boilers and process heaters control device requirements.

(1) The boiler or process heater shall be designed and operated to achieve one of the following performance specifications:

(i) Destroy the total organic compounds (TOC), less methane and ethane, contained in the vent stream introduced into the flame zone of the boiler or process heater either:

(A) By 95 percent or more, on a weight-basis, or

(B) To achieve in the exhausted combustion gases a total concentration for the TOC, less methane and ethane, of less than or equal to 20 parts per million by volume (ppmv) on a dry basis corrected to 3 percent oxygen.

(ii) Destroy the HAP listed in Table 1 of this subpart contained in the vent stream entering the vapor incinerator either:

(A) By 95 percent or more, on a total HAP weight-basis, or

(B) To achieve in the exhausted combustion gases a total concentration for the HAP, listed in table 1 of the subpart, of less than or equal to 20 parts per million by volume (ppmv) on a dry basis corrected to 3 percent oxygen.

(iii) Introduce the vent stream into the flame zone of the boiler or process heater and maintain the conditions in the combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher.

(iv) Introduce the vent stream with the fuel that provides the predominate heat input to the boiler or process heater (i.e., the primary fuel); or

(v) Introduce the vent stream to a boiler or process heater for which the owner or operator either has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266 subpart H of this chapter; or has certified compliance with the interim status requirements of

40 CFR part 266 subpart H of this chapter.

(2) The owner or operator shall demonstrate that the boiler or process heater achieves the performance requirements of paragraph (g)(1)(i), (g)(1)(ii), or (g)(1)(iii) of this section using one of the following methods:

(i) Conduct performance tests in accordance with the requirements of § 63.694(l) of this subpart.

(ii) Prepare a design analysis. The design analysis shall address the vent stream composition, constituent concentrations, and flow rate; shall establish the design minimum and average flame zone temperatures and combustion zone residence time; and shall describe the method and location where the vent stream is introduced into the flame zone.

(3) The owner or operator shall demonstrate that the boiler or process heater achieves the performance requirements of paragraph (g)(1)(iv) or (g)(1)(v) of this section by keeping records that document that the boiler or process heater is designed and operated in accordance with the applicable requirements of this section.

(4) To meet the monitoring requirements of paragraph (b)(4) of this section, the owner or operator shall use any of the following continuous monitoring systems:

(i) A temperature monitoring device equipped with a continuous recorder. The temperature sensor shall be installed at a location in the combustion chamber downstream of the flame zone.

(ii) A continuous monitoring system that measures the concentration level of organic compounds in the exhaust vent stream from the control device using an organic monitoring device equipped with a continuous recorder.

(iii) A continuous monitoring system that measures alternative operating parameters other than those specified in paragraphs (g)(3)(i) or (g)(3)(ii) of this section upon approval of the Administrator as specified in 40 CFR 63.8 (f)(1) through (f)(5) of this part.

(h) Flare control device requirements. The flare shall be designed and operated in accordance with the requirements of 40 CFR 63.11(b). To meet the monitoring requirements of paragraph (b)(4) of this section, the owner or operator shall use a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

§ 63.694 Testing methods and procedures.

(a) This section specifies the testing methods and procedures required for this subpart to perform the following:

(1) To determine the average VOHAP concentration for off-site material streams at the point-of-delivery for compliance with standards specified § 63.683 of this subpart, the testing methods and procedures are specified in paragraph (b) of this section.

(2) To determine the average VOHAP concentration for treated off-site material streams at the point-of-treatment for compliance with standards specified § 63.684 of this subpart, the testing methods and procedures are specified in paragraph (c) of this section.

(3) To determine the treatment process VOHAP concentration limit (C_R) for compliance with standards specified § 63.684 of this subpart, the testing methods and procedures are specified in paragraph (d) of this section.

(4) To determine treatment process required HAP removal rate (RMR) for compliance with standards specified § 63.684 of this subpart, the testing methods and procedures are specified in paragraph (e) of this section.

(5) To determine treatment process actual HAP removal rate (MR) for compliance with standards specified § 63.684 of this subpart, the testing methods and procedures are specified in paragraph (f) of this section.

(6) To determine treatment process required HAP reduction efficiency (R) for compliance with standards specified in § 63.684 of this subpart, the testing methods and procedures are specified in paragraph (g) of this section.

(7) To determine treatment process required HAP biodegradation efficiency (R_{bio}) for compliance with standards specified in § 63.684 of this subpart, the testing methods and procedures are specified in paragraph (h) of this section.

(8) To determine treatment process required actual HAP mass removal rate (MR_{bio}) for compliance with standards specified in§ 63.684 of this subpart, the testing methods and procedures are specified in paragraph (i) of this section.

(9) To determine maximum organic HAP vapor pressure of off-site materials in tanks for compliance with the standards specified in § 63.685 of this subpart, the testing methods and procedures are specified in paragraph (j) of this section.

(10) To determine no detectable organic emissions, the testing methods and procedures are specified in paragraph (k) of this section.

(11) To determine closed-vent system and control device performance for compliance with the standards specified in § 63.693 of this subpart, the testing methods and procedures are specified in paragraph (l) of this section.

(b) Testing methods and procedures to determine average VOHAP concentration of an off-site material stream at the point-of-delivery.

(1) The average VOHAP concentration of an off-site material at the point-of-delivery shall be determined using either direct measurement as specified in paragraph (b)(2) of this section or by knowledge as specified in paragraph (b)(3) of this section.

(2) Direct measurement to determine VOHAP concentration.

(i) Sampling. Samples of the off-site material stream shall be collected from the container, pipeline, or other device used to deliver the off-site material stream to the plant site in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VOHAP concentration for the off-site material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the off-site material stream but shall not exceed 1 year.

(B) A sufficient number of samples, but no less than four samples, shall be collected to represent the complete range of HAP compositions and HAP quantities that occur in the off-site material stream during the entire averaging period due to normal variations in the operating conditions for the source or process generating the off-site material stream. Examples of such normal variations are seasonal variations in off-site material quantity or fluctuations in ambient temperature.

(C) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846 or Method 25D in 40 CFR part 60, appendix A.

(ii) Analysis. Each collected sample shall be prepared and analyzed in accordance with one of the following methods:

(A) Method 25D in 40 CFR part 60, appendix A.

(B) Method 305 in 40 CFR part 63, appendix A.

(C) Method 624 in 40 CFR part 136, appendix A.

(D) Method 1624 in 40 CFR part 136, appendix A.

(E) Method 1625 in 40 CFR part 136, appendix A.

(F) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 and Section 5.3 of Method 301 in 40 CFR part 63, appendix A.

(iii) Calculations. The average VOHAP concentration (C) on a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with paragraph (b)(2)(ii) of this section and the following equation:

$$\overline{C} = \frac{1}{Q_T} \times \sum_{i=1}^{n} \left(Q_i \times C_i \right)$$

where:

C=Average VOHAP concentration of the off-site material at the point-of-delivery on a mass-weighted basis, ppmw.

i=Individual sample ''i'' of the off-site material.

n=Total number of samples of the off-site material collected (at least 4) for the averaging period (not to exceed 1 year).

Q_i=Mass quantity of off-site material stream represented by C_i, kg/hr.

Q_T=Total mass quantity of off-site material during the averaging period, kg/hr.

C_i=Measured VOHAP concentration of sample ''i'' as determined in accordance with the requirements of § 63.693(b)(2)(ii), ppmw.

(3) Knowledge of the off-site material to determine VOHAP concentration.

(i) Documentation shall be prepared that presents the information used as the basis for the owner's or operator's knowledge of the off-site material stream's average VOHAP concentration. Examples of information that may be used as the basis for knowledge include: material balances for the source or process generating the off-site material stream; species-specific chemical test data for the off-site material stream from previous testing that are still applicable to the current off-site material stream; previous test data for other locations managing the same type of off-site material stream; or other knowledge based on information included in manifests, shipping papers, or waste certification notices.

(ii) If test data are used as the basis for knowledge, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VOHAP concentration. For example, an owner or operator may use HAP concentration test data for the off-site material stream that are validated in accordance with Method 301 in 40 CFR part 63, appendix A of this part as the basis for knowledge of the off-site material.

(iii) An owner or operator using species-specific chemical concentration test data as the basis for knowledge of the off-site material may adjust the test data to the corresponding average VOHAP concentration value which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (f_{m305}) listed in Table 1 of this subpart.

(iv) In the event that the Administrator and the owner or operator disagree on a determination of the average VOHAP concentration for an off-site material stream using knowledge, then the results from a determination of VOHAP concentration using direct measurement as specified in paragraph (b)(2) of this section shall be used to establish compliance with the applicable requirements of this subpart. The Administrator may perform or request that the owner or operator perform this determination using direct measurement.

(c) Determination of average VOHAP concentration of an off-site material stream at the point-of-treatment.

(1) Sampling. Samples of the off-site material stream shall be collected at the point-of-treatment in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(i) The averaging period to be used for determining the average VOHAP concentration for the off-site material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the off-site material stream but shall not exceed 1 year.

(ii) A sufficient number of samples, but no less than four samples, shall be collected to represent the complete range of HAP compositions and HAP quantities that occur in the off-site material stream during the entire averaging period due to normal variations in the operating conditions for the treatment process. Examples of such normal variations are seasonal variations in off-site material quantity or fluctuations in ambient temperature.

(iii) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material stream such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846 or Method 25D in 40 CFR part 60, appendix A.

(2) Analysis. Each collected sample shall be prepared and analyzed in accordance with the one of the following methods:

(i) Method 25D in 40 CFR part 60, appendix A.

(ii) Method 305 in 40 CFR part 63, appendix A.

(iii) Method 624 in 40 CFR part 136, appendix A.

(iv) Method 1624 in 40 CFR part 136, appendix A.

(v) Method 1625 in 40 CFR part 136, appendix A.

(3) Calculations. The average VOHAP concentration (C) on a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with paragraph (c)(2) of this section and the following equation:

$$\overline{C} = \frac{1}{Q_T} \times \sum_{i=1}^{n} \left(Q_i \times C_i \right)$$

Where:

C=Average VOHAP concentration of the off-site material on a mass-weighted basis, ppmw.

i=Individual sample ''i'' of the off-site material.

n=Total number of samples of the off-site material collected (at least 4) for the averaging period (not to exceed 1 year).

Q_i=Mass quantity of off-site material stream represented by C_i, kg/hr.
Q_T=Total mass quantity of off-site material during the averaging period, kg/hr.
C_i=Measured VOHAP concentration of sample ''i'' as determined in accordance with the requirements of § 63.693(c)(2), ppmw.

(d) Determination of treatment process VOHAP concentration limit (C_R).

(1) All of the off-site material streams entering the treatment process shall be identified.

(2) The average VOHAP concentration of each off-site material stream at the point-of-delivery shall be determined using the procedures specified in paragraph (b) of this section.

(3) The VOHAP concentration limit (C_R) shall be calculated by using the results determined for each individual off-site material stream and the following equation:

$$C_R = \frac{\sum_{x=1}^{m}\left(Q_x \times \bar{C}_x\right) + \sum_{y=1}^{n}\left(Q_y \times 500\ \text{ppmw}\right)}{\sum_{x=1}^{m} Q_x + \sum_{y=1}^{n} Q_y}$$

where:
C_R=VOHAP concentration limit, ppmw.
x=Individual off-site material stream ''x'' that has a VOHAP concentration less than 500 ppmw at the point-of-delivery.
y=Individual off-site material stream ''y'' that has a VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery.
m=Total number of ''x'' off-site material streams treated by process.
n=Total number of ''y'' off-site material streams treated by process.
Q_x=Total mass quantity of off-site material stream ''x'', kg/yr.
Q_y=Total mass quantity of off-site material stream ''y'', kg/yr.
$\bar{C}_x$=VOHAP concentration of off-site material stream ''x'' at the point-of-delivery, ppmw.

(e) Determination of required HAP mass removal rate (RMR).

(1) All of the off-site material streams entering the treatment process shall be identified.

(2) The average VOHAP concentration of each off-site material stream at the point-of-delivery shall be determined in accordance with the requirements of paragraph (b) of this section.

(3) For each individual off-site material stream that has an average VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery, the average volumetric flow rate and the density of the off-site material stream at the point-of-delivery shall be determined.

(4) The required HAP mass removal rate (RMR) shall be calculated by using the average VOHAP concentration, average volumetric flow rate, and density determined for each off-site material stream and the following equation:

$$RMR = \sum_{y=1}^{n}\left[V_y \times k_y \times \frac{\left(\bar{C}_y - 500\ \text{ppmw}\right)}{10^6}\right]$$

where:
RMR=Required HAP mass removal rate, kg/hr.
y=Individual off-site material stream ''y'' that has a VOHAP concentration equal to or greater than 500 ppmw at the point-of-delivery as determined in accordance with the requirements of § 63.693(b).
n=Total number of ''y'' off-site material streams treated by process.
V_y=Average volumetric flow rate of off-site material stream ''y'' at the point-of-delivery, m^3/hr.
k_y=Density of off-site material stream ''y'', kg/m^3
$\bar{C}_y$=Average VOHAP concentration of off-site material stream ''y'' at the point-of-delivery as determined in accordance with the requirements of § 63.693(b), ppmw.

(f) Determination of actual HAP mass removal rate (MR).

(1) The actual HAP mass removal rate (MR) shall be determined based on results for a minimum of three consecutive runs. The sampling time for each run shall be 1 hour.

(2) The off-site material HAP mass flow entering the process (E_b) and the off-site material HAP mass flow exiting the process (E_a) shall be determined in accordance with the requirements of paragraph (g)(4) of this section.

(3) The actual mass removal rate shall be calculated by using the mass flow rates determined in accordance with the requirements of paragraph (f)(2) of this section and the following equation:

$MR = E_b - E_a$

where:
MR=Actual HAP mass removal rate, kg/hr.
E_b=Off-site material HAP mass flow entering process as determined in accordance with the requirements of paragraph (f)(2) of this section, kg/hr.
E_a=Off-site material HAP mass flow exiting process as determined in accordance with the requirements of paragraph (f)(2) of this section, kg/hr.

(g) Determination of treatment process HAP reduction efficiency (R).

(1) The HAP reduction efficiency (R) for a treatment process shall be determined based on results for a minimum of three consecutive runs.

(2) All off-site material streams entering the treatment process and all off-site material streams exiting the treatment process shall be identified. The owner or operator shall prepare a sampling plan for measuring these streams that accurately reflects the retention time of the off-site material in the process.

(3) For each run, information shall be determined for each off-site material stream identified in paragraph (g)(2) of this section using the following procedures:

(i) The mass quantity of each off-site material stream entering the process (Q_b) and the mass quantity of each off-

site material stream exiting the process (Q_a) shall be determined.

(ii) The average VOHAP concentration at the point-of-delivery of each off-site material stream entering the process ($\bar{C}_b$) during the run shall be determined in accordance with the requirements of paragraph (b) of this section. The VOHAP concentration of the off-site material stream at the point-of-treatment ($\bar{C}_a$) during the run shall be determined in accordance with the applicable requirements of paragraph (c) of this section.

$$E_b = \frac{1}{10^6}\sum_{j=1}^{m}\left(Q_{bj} \times \bar{C}_{bj}\right)$$

$$E_a = \frac{1}{10^6}\sum_{j=1}^{m}\left(Q_{aj} \times \bar{C}_{aj}\right)$$

where:

E_b=Off-site material HAP mass flow entering process, kg/hr.

E_a=Off-site material HAP mass flow exiting process, kg/hr.

m=Total number of runs (at least 3)

j=Individual run ''j''

Q_V=Mass quantity of off-site material entering process during run ''j'', kg/hr.

Q_{aj}=Average mass quantity of off-site material exiting process during run ''j'', kg/hr.

$\bar{C}_{aj}$=Average VOHAP concentration of off-site material exiting process during run ''j'' as determined in accordance with the requirements of § 63.693(b), ppmw.

$\bar{C}_V$=Average VOHAP concentration of off-site material entering process during run ''j'' as determined in accordance with the requirements of § 63.693(b), ppmw.

(4) The off-site material HAP mass flow entering the process (E_b) and the off-site material HAP mass flow exiting the process (E_a) shall be calculated by using the results determined in accordance with paragraph (g)(3) of this section and the following equations:

(5) The HAP reduction efficiency (R) shall be calculated by using the results determined in accordance with paragraph (g)(4) of this section and the following equation:

$$R = \frac{E_b - E_a}{E_b} \times 100$$

where:

R=HAP reduction efficiency, percent.

E_b=Off-site material HAP mass flow entering process as determined in accordance with the requirements of paragraph (d)(4) of this section, kg/hr.

E_a=Off-site material HAP mass flow exiting process as determined in accordance with the requirements of paragraph (d)(4) of this section, kg/hr.

(h) Determination of HAP biodegradation efficiency (R_{bio}).

(1) The fraction of HAP biodegraded (F_{bio}) shall be determined using the procedure specified in 40 CFR part 63, appendix C of this part.

(2) The HAP biodegradation efficiency (R_{bio}) shall be calculated by using the following equation:

$R_{bio}=F_{bio} \times 100$

where:

R_{bio} = HAP biodegradation efficiency, percent.

F_{bio} = Fraction of HAP biodegraded as determined in accordance with the requirements of paragraph (h)(1) of this section.

(i) Determination of actual HAP mass removal rate (MR_{bio}).

(1) The actual HAP mass removal rate (MR_{bio}) shall be determined based on results for a minimum of three consecutive runs. The sampling time for each run shall be 1 hour.

(2) The off-site material HAP mass flow entering the process (E_b) shall be determined in accordance with the requirements of paragraph (g)(4) of this section.

(3) The fraction of HAP biodegraded (F_{bio}) shall be determined using the procedure specified in 40 CFR part 63, appendix C of this part.

(4) The actual mass removal rate shall be calculated by using the HAP mass flow rates and fraction of HAP biodegraded determined in accordance with the requirements of paragraphs (i)(2) and (i)(3), respectively, of this section and the following equation:

$MR_{bio}=E_b \times F_{bio}$

where:

MR_{bio}=Actual HAP mass removal rate, kg/hr.

E_b=Off-site material HAP mass flow entering process, kg/hr.

F_{bio}=Fraction of HAP biodegraded.

(j) Determination of maximum HAP vapor pressure for off-site material in a tank.

(1) The maximum HAP vapor pressure of the off-site material composition managed in a tank shall be determined using either direct measurement as specified in paragraph (j)(2) of this section or by knowledge of the off-site material as specified by paragraph (j)(3) of this section.

(2) Direct measurement to determine the maximum HAP vapor pressure of an off-site material.

(i) Sampling. A sufficient number of samples shall be collected to be representative of the off-site material contained in the tank. All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material is collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be

maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW–846 or Method 25D in 40 CFR part 60, appendix A.

(ii) Analysis. Any one of the following methods may be used to analyze the samples and compute the maximum HAP vapor pressure of the off-site material:

(A) Method 25E in 40 CFR part 60 appendix A;

(B) Methods described in American Petroleum Institute Bulletin 2517, ''Evaporation Loss from External Floating Roof Tanks,'';

(C) Methods obtained from standard reference texts;

(D) ASTM Method 2879–83; or

(E) Any other method approved by the Administrator.

(3) Use of knowledge to determine the maximum HAP vapor pressure of the off-site material. Documentation shall be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum HAP vapor pressure of the off-site material is less than the maximum vapor pressure limit listed in Table 3 or Table 4 of this subpart for the applicable tank design capacity category. Examples of information that may be used include: the off-site material is generated by a process for which at other locations it previously has been determined by direct measurement that the off-site material maximum HAP vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

(k) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the unit contains a material having an organic HAP concentration representative of the range of concentrations for the off-site materials expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the off-site material placed in the unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane in air at a concentration of approximately, but less than 10,000 ppmv.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60 appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(l) Control device performance test procedures.

(1) Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites at the inlet and outlet of the control device.

(i) To determine compliance with a control device percent reduction requirement, sampling sites shall be located at the inlet of the control device as specified in paragraphs (l)(1)(i)(A) and (l)(1)(i)(B) of this section, and at the outlet of the control device.

(A) The control device inlet sampling site shall be located after the final product recovery device.

(B) If a vent stream is introduced with the combustion air or as a auxiliary fuel into a boiler or process heater, the location of the inlet sampling sites shall be selected to ensure that the measurement of total HAP concentration or TOC concentration, as applicable, includes all vent streams and primary and secondary fuels introduced into the boiler or process heater.

(ii) To determine compliance with an enclosed combustion device concentration limit, the sampling site shall be located at the outlet of the device.

(2) The gas volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

(3) To determine compliance with the control device percent reduction requirement, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A of this chapter; alternatively, any other method or data that has been validated according to the applicable procedures in Method 301 in 40 CFR part 63, appendix A of this part may be used. The following procedures shall be used to calculate percent reduction efficiency:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time such as 15 minute intervals during the run.

(ii) The mass rate of either TOC (minus methane and ethane) or total HAP (E_i and E_o ,respectively) shall be computed.

(A) The following equations shall be used:

$$E_i = K_2\left(\sum_{\text{scalesym150 j scalesym150 = scalesym1501}}^{\text{scalesym}} 150nC_{ij}M_{ij}\right)Q_i$$

$$E_o = K_2\left(\sum_{\text{scalesym150 j scalesym150 = scalesym1501}}^{\text{scalesym}} 150nC_{oj}M_{oj}\right)Q_o$$

where:

C_{ij}, C_{oj}=Concentration of sample component j of the gas stream at the inlet and outlet of the control device, respectively, dry basis, parts per million by volume.

E_i, E_o=Mass rate of TOC (minus methane and ethane) or total HAP at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.

M_{ij}, M_{oj}=Molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole.

Q_i, Q_o=Flow rate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meter per minute.

K_2=Constant, 2.494×10^{-6} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature (gram-mole per standard cubic meter) is 20 °C.

(B) When the TOC mass rate is calculated, all organic compounds (minus methane and ethane) measured by Method 18 of 40 CFR part 60, appendix A shall be summed using the equation in paragraph (l)(3)(ii)(A) of this section.

(C) When the total HAP mass rate is calculated, only the HAP constituents shall be summed using the equation in paragraph (l)(3)(ii)(A) of this section.

(iii) The percent reduction in TOC (minus methane and ethane) or total HAP shall be calculated as follows:

$$R_{cd} = \frac{E_i - E_o}{E_i} \times 100$$

where:

R_{cd}=Control efficiency of control device, percent.

E_i=Mass rate of TOC (minus methane and ethane) or total HAP at the inlet to the control device as calculated under paragraph (l)(3)(ii) of this section, kilograms TOC per hour or kilograms HAP per hour.

E_o=Mass rate of TOC (minus methane and ethane) or total HAP at the outlet of the control device, as calculated under paragraph (l)(3)(ii) of this section, kilograms TOC per hour or kilograms HAP per hour.

(iv) If the vent stream entering a boiler or process heater is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total HAP or TOC (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or total HAP in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total HAP exiting the device, respectively.

(4) To determine compliance with the enclosed combustion device total HAP concentration limit of this subpart, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A to measure either TOC (minus methane and ethane) or total HAP. Alternatively, any other method or data that has been validated according to Method 301 in appendix A of this part, may be used. The following procedures shall be used to calculate parts per million by volume concentration, corrected to 3 percent oxygen:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(ii) The TOC concentration or total HAP concentration shall be calculated according to paragraph (m)(4)(ii)(A) or (m)(4)(ii)(B) of this section.

(A) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be computed for each run using the following equation:

$$C_{TOC} = \sum_{i=1}^{x} \frac{\sum_{j=1}^{n} C_{ij}}{x}$$

where:

C_{TOC}=Concentration of total organic compounds minus methane and ethane, dry basis, parts per million by volume.

C_{ji}=Concentration of sample components j of sample i, dry basis, parts per million by volume.

n=Number of components in the sample.

x=Number of samples in the sample run.

(B) The total HAP concentration (C_{HAP}) shall be computed according to the equation in paragraph (l)(4)(ii)(A) of this section except that only HAP constituents shall be summed.

(iii) The measured TOC concentration or total HAP concentration shall be corrected to 3 percent oxygen as follows:

(A) The emission rate correction factor or excess air, integrated sampling and analysis procedures of Method 3B of 40 CFR part 60, appendix A shall be used to determine the oxygen concentration ($\%O_{2dry}$). The samples shall be collected during the same time that the samples are collected for determining TOC concentration or total HAP concentration.

(B) The concentration corrected to 3 percent oxygen (C_c) shall be computed using the following equation:

$$C_c = C_m\left(\frac{17.9}{20.9 - \%0_{2\,dry}}\right)$$

where:

C_c=TOC concentration or total HAP concentration corrected to 3 percent oxygen, dry basis, parts per million by volume.

C_m=Measured TOC concentration or total HAP concentration, dry basis, parts per million by volume.

$\%O_{2dry}$=Concentration of oxygen, dry basis, percent by volume.

§ 63.695 Inspection and monitoring requirements.

(a) This section specifies the inspection and monitoring procedures required to perform the following:

(1) To inspect tank fixed-roofs and floating roofs for compliance with the Tank level 2 controls standards specified in § 63.685 of this subpart, the inspection procedures are specified in paragraph (b) of this section.

(2) To inspect and monitor closed-vent systems for compliance with the standards specified in § 63.693 of this subpart, the inspection and monitoring procedure are specified in paragraph (c) of this section.

(3) To inspect and monitor transfer system covers for compliance with the

standards specified in § 63.689(c)(1) of this subpart, the inspection and monitoring procedure are specified in paragraph (d) of this section.

(b) Tank Level 2 fixed roof and floating roof inspection requirements.

(1) Owners and operators that use a tank equipped with an internal floating roof in accordance with the provisions of § 63.685(e) of this subpart shall meet the following inspection requirements:

(i) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, the internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the waste surfaces from the atmosphere; or the slotted membrane has more than 10 percent open area.

(ii) The owner or operator shall inspect the internal floating roof components as follows except as provided for in paragraph (b)(1)(iii) of this section:

(A) Visually inspect the internal floating roof components through openings on the fixed-roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and

(B) Visually inspect the internal floating roof, primary seal, secondary seal (if one is in service), gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 10 years. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in § 63.697 of this subpart.

(iii) As an alternative to performing the inspections specified in paragraph (b)(1)(ii) of this section for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals (if any) each time the tank is emptied and degassed and at least every 5 years. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in § 63.697 of this subpart.

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696 of this subpart.

(2) Owners and operators that use a tank equipped with an external floating roof in accordance with the provisions of § 63.685(f) of this subpart shall meet the following requirements:

(i) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:

(A) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in § 63.697 of this subpart.

(B) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 days after initial operation of the separator following installation of the floating roof and, thereafter, at least once every year. Prior to each inspection, the owner or operator shall notify the Administrator in accordance with the reporting requirements specified in § 63.697 of this subpart.

(C) If a tank ceases to hold off-site material for a period of 1 year or more, subsequent introduction of off-site material into the tank shall be considered an initial operation for the purposes of paragraphs (b)(2)(i)(A) and (b)(2)(i)(B) of this section.

(D) The owner shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure.

(*1*) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(*2*) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

(*3*) For a seal gap measured under paragraph (b)(2) of this section, the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(*4*) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal perimeter of the tank. These total gap areas for the primary seal and secondary seal are then are compared to the respective standards for the seal type as specified in § 63.685(f)(1) of this subpart.

(E) In the event that the seal gap measurements do not conform to the specifications in § 63.685(f)(1) of this subpart, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696 of this subpart.

(ii) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

(A) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The owner or operator shall perform the inspections following installation of the external floating roof and, thereafter, at least once every year.

(C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696(d) of this subpart.

(3) Owners and operators that use a tank equipped with a fixed roof in accordance with the provisions of § 63.685(g) of this subpart shall meet the following requirements:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked,

or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform the inspections following installation of the fixed roof and, thereafter, at least once every year.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696(e) of this subpart.

(4) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of paragraph (b)(1), (b)(2), or (b)(3) of this section in the following manner:

(i) The owner or operator shall within 45 calendar days of detecting the defect either repair the defect or empty the tank and remove it from service. If within this 45-day period the defect cannot be repaired or the tank cannot be removed from service without disrupting operations at the plant site, the owner or operator is allowed two 30-day extensions. In cases when an owner or operator elects to use a 30-day extension, the owner or operator shall prepare and maintain documentation describing the defect, explaining why alternative storage capacity is not available, and specify a schedule of actions that will ensure that the control equipment will be repaired or the tank emptied as soon as possible.

(ii) When a defect is detected during an inspection of a tank that has been emptied and degassed, the owner or operator shall repair the defect before refilling the tank.

(c) Owners and operators that use a closed vent system in accordance with the provisions of § 63.693 of this subpart shall meet the following inspection and monitoring requirements:

(1) Each closed-vent system that is used to comply with § 63.693(c)(1)(i) of this subpart shall be inspected and monitored in accordance with the following requirements:

(i) At initial startup, the owner or operator shall monitor the closed-vent system components and connections using the procedures specified in § 63.693(k) of this subpart to demonstrate that the closed-vent system operates with no organic detectable emissions.

(ii) After initial startup, the owner or operator shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air emissions. The owner or operator shall monitor a component or connection using the procedures specified in § 63.693(k) of this subpart to demonstrate that it operates with no detectable organic emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

(B) Closed-vent system components or connections other than those specified in paragraph (c)(1)(ii)(A) of this section, shall be monitored at least once per year using the procedures specified in § 63.693(k) of this subpart to demonstrate that components or connections operate with no detectable organic emissions.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of paragraph (3) of this section.

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in § 63.696 of this subpart.

(2) Each closed-vent system that is used to comply with § 63.693(c)(1)(ii) of this subpart shall be inspected and monitored in accordance with the following requirements:

(i) The closed-vent system shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwok or piping; loose connections; or broken or missing caps or other closure devices.

(ii) The owner or operator shall perform the inspections following installation of the closed-vent system and, thereafter, at least once every year.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (3) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696 of this subpart.

(3) The owner or operator shall repair all detected defects as follows:

(i) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection.

(ii) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.696 of this subpart.

(d) Owners and operators that use a transfer system equipped with a cover in accordance with the provisions of § 63.689(c)(1) of this subpart shall meet the following inspection requirements:

(1) The cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover sections or between the cover and its mounting; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) The owner or operator shall perform the inspections following installation of the cover and, thereafter, at least once every year.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (5) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.696 of this subpart.

(5) The owner or operator shall repair all detected defects as follows:

(i) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (c)(5)(ii) of this section.

(ii) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.696 of this subpart.

§ 63.696 Recordkeeping requirements.

(a) The owner or operator subject to this subpart shall comply with the recordkeeping requirements in § 63.10 under 40 CFR 63 subpart A—General Provisions that are applicable to this subpart as specified in Table 2 of this subpart.

(b) The owner or operator of a control device subject to this subpart shall maintain the records in accordance with the requirements of 40 CFR 63.10 of this part.

(c) [Reserved]

(d) Each owner or operator using an internal floating roof to comply with the tank control requirements specified in

§ 63.685(e) of this subpart or using an external floating roof to comply with the tank control requirements specified in § 63.685(f) of this subpart shall prepare and maintain the following records:

(1) Documentation describing the floating roof design and the dimensions of the tank.

(2) A record for each inspection required by § 63.695(b) of this subpart, as applicable to the tank, that includes the following information: a tank identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(3) The owner or operator shall record for each defect detected during inspections required by § 63.695(b) of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.695(b)(4) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(4) Owners and operators that use a tank equipped with an external floating roof in accordance with the provisions of § 63.685(f) of this subpart shall prepare and maintain records for each seal gap inspection required by § 63.695(b) describing the results of the seal gap measurements. The records shall include the date of that the measurements are performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in § 63.695(b) of this subpart, the records shall include a description of the repairs that were made, the date the repairs were made, and the date the separator was emptied, if necessary.

(e) Each owner or operator using a fixed roof to comply with the tank control requirements specified in § 63.685(g) of this subpart shall prepare and maintain the following records:

(1) A record for each inspection required by § 63.695(b) of this subpart, as applicable to the tank, that includes the following information: a tank identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(2) The owner or operator shall record for each defect detected during inspections required by § 63.695(b) of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.695(b)(4) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(f) Each owner or operator using an enclosure to comply with the tank control requirements specified in § 63.685(i) of this subpart shall prepare and maintain records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, Appendix B.

(g) An owner or operator shall record, on a semiannual basis, the information specified in paragraphs (g)(1) and (g)(2) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of § 63.693(d) through (h) of this subpart, as applicable.

(1) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(2) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during these 6 months that the control device did not meet the requirement of § 63.693 (d) through (h) of this subpart, as applicable, due to planned routine maintenance.

(h) An owner or operator shall record the information specified in paragraphs (h)(1) through (h)(3) of this section for those unexpected control device system malfunctions that would require the control device not to meet the requirements of § 63.693 (d) through (h) of this subpart, as applicable.

(1) The occurrence and duration of each malfunction of the control device system.

(2) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

(3) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

§ 63.697 Reporting requirements.

(a) The owner or operator subject to this subpart shall comply with the notification requirements in § 63.9 and the reporting requirements in § 63.10 under 40 CFR 63 subpart A—General Provisions that are applicable to this subpart as specified in Table 2 of this subpart.

(b) The owner or operator of a control device used to meet the requirements of § 63.693 of this subpart shall submit the following reports to the Administrator:

(1) A Notification of Performance Tests specified in § 63.7 and § 63.9(g) of this part,

(2) Performance test reports specified in § 63.10(d)(2) of this part

(3) Startup, shutdown, and malfunction reports specified in § 63.10(d)(5) of this part,

(i) If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not completely consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in § 63.6(e)(3) of this part, the owner or operator shall state such information in the report. The startup, shutdown, or malfunction report shall consist of a letter, containing the name, title, and signature of the responsible official who is certifying its accuracy, that shall be submitted to the Administrator, and

(ii) Separate startup, shutdown, or malfunction reports are not required if the information is included in the report specified in paragraph (b)(6) of this section.

(4) A summary report specified in § 63.10(e)(3) of this part shall be submitted on a semi-annual basis (i.e., once every 6-month period).

(c) Each owner or operator using an internal floating roof or external floating roof to comply with the Tank Level 2 control requirements specified in § 63.685(d) of this subpart shall notify the Administrator in advance of each inspection required under § 63.695(b) of this subpart to provide the Administrator with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Administrator of the date and location of the inspection as follows:

(1) Prior to each inspection to measure external floating roof seal gaps as required under § 63.695(b) of this subpart, written notification shall be prepared and sent by the owner or operator so that it is received by the Administrator at least 30 calendar days

before the date the measurements are scheduled to be performed.

(2) Prior to each visual inspection of an internal floating roof or external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Administrator at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in paragraph (c)(3) of this section.

(3) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Administrator as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Administrator at least 7 calendar days before refilling the tank.

§ 63.698 Delegation of Authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authority listed in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authority will not be delegated to States for § 63.694 of this subpart.

TABLE 1 TO SUBPART DD.—LIST OF HAZARDOUS AIR POLLUTANTS (HAP) FOR SUBPART DD

CAS No.[a]	Chemical name	$f_{m\ 305}$
75070	Acetaldehyde	1.000
75058	Acetonitrile	0.989
98862	Acetophenone	0.314
107028	Acrolein	1.000
107131	Acrylonitrile	0.999
107051	Allyl chloride	1.000
71432	Benzene (includes benzene in gasoline)	1.000
98077	Benzotrichloride (isomers and mixture)	0.958
100447	Benzyl chloride	1.000
92524	Biphenyl	0.864
542881	Bis(chloromethyl)ether[b]	0.999
75252	Bromoform	0.998
106990	1,3-Butadiene	1.000
75150	Carbon disulfide	1.000
56235	Carbon tetrachloride	1.000
43581	Carbonyl sulfide	1.000
133904	Chloramben	0.633
108907	Chlorobenzene	1.000
67663	Chloroform	1.000
107302	Chloromethyl methyl ether[b]	1.000
126998	Chloroprene	1.000
98828	Cumene	1.000
94757	2,4-D, salts and esters	0.167
334883	Diazomethane[c]	0.999
132649	Dibenzofurans	0.967
96128	1,2-Dibromo-3-chloropropane	1.000
106467	1,4-Dichlorobenzene(p)	1.000
107062	Dichloroethane (Ethylene dichloride)	1.000
111444	Dichloroethyl ether (Bis(2-chloroethyl ether)	0.757
542756	1,3-Dichloropropene	1.000
79447	Dimethyl carbamoyl chloride[c]	0.150
57147	1,1-Dimethyl hydrazine	0.383
64675	Diethyl sulfate	0.0025
77781	Dimethyl sulfate	0.086
121697	N,N-Dimethylaniline	0.0008
51285	2,4-Dinitrophenol	0.0077
121142	2,4-Dinitrotoluene	0.0848
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.869
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	0.939
106887	1,2-Epoxybutane	1.000
140885	Ethyl acrylate	1.000
100414	Ethyl benzene	1.000
75003	Ethyl chloride (Chloroethane)	1.000
106934	Ethylene dibromide (Dibromoethane)	0.999
107062	Ethylene dichloride (1,2-Dichloroethane)	1.000
151564	Ethylene imine (Aziridine)	0.867
75218	Ethylene oxide	1.000
75343	Ethylidene dichloride (1,1-Dichloroethane)	1.000
	Glycol ethers[d]	(e)
118741	Hexachlorobenzene	0.97
87683	Hexachlorobutadiene	0.88
67721	Hexachloroethane	0.499
110543	Hexane	1.000
78591	Isophorone	0.506
58899	Lindane (all isomers)	1.000
67561	Methanol	0.855

TABLE 1 TO SUBPART DD.—LIST OF HAZARDOUS AIR POLLUTANTS (HAP) FOR SUBPART DD—Continued

CAS No.[a]	Chemical name	$f_{m\,305}$
74839	Methyl bromide (Bromomethane)	1.000
74873	Methyl chloride (Choromethane)	1.000
71556	Methyl chloroform (1,1,1-Trichloroethane)	1.000
78933	Methyl ethyl ketone (2-Butanone)	0.990
74884	Methyl iodide (Iodomethane)	1.000
108101	Methyl isobutyl ketone (Hexone)	0.979
624839	Methyl isocyanate	1.000
80626	Methyl methacrylate	0.999
1634044	Methyl tert butyl ether	1.000
75092	Methylene chloride (Dichloromethane)	1.000
91203	Naphthalene	0.994
98953	Nitrobenzene	0.394
79469	2-Nitropropane	0.989
82688	Pentachloronitrobenzene (Quintobenzene)	0.839
87865	Pentachlorophenol	0.0898
75445	Phosgene[c]	1.000
123386	Propionaldehyde	0.999
78875	Propylene dichloride (1,2-Dichloropropane)	1.000
75569	Propylene oxide	1.000
75558	1,2-Propylenimine (2-Methyl aziridine)	0.945
100425	Styrene	1.000
96093	Styrene oxide	0.830
79345	1,1,2,2-Tetrachloroethane	0.999
127184	Tetrachloroethylene (Perchloroethylene)	1.000
108883	Toluene	1.000
95534	o-Toluidine	0.152
120821	1,2,4-Trichlorobenzene	1.000
71556	1,1,1-Trichloroethane (Methyl chlorform)	1.000
79005	1,1,2-Trichloroethane (Vinyl trichloride)	1.000
79016	Trichloroethylene	1.000
95954	2,4,5-Trichlorophenol	0.108
88062	2,4,6-Trichlorophenol	0.132
121448	Triethylamine	1.000
540841	2,2,4-Trimethylpentane	1.000
108054	Vinyl acetate	1.000
593602	Vinyl bromide	1.000
75014	Vinyl chloride	1.000
75354	Vinylidene chloride (1,1-Dichloroethylene)	1.000
1330207	Xylenes (isomers and mixture)	1.000
95476	o-Xylenes	1.000
108383	m-Xylenes	1.000
106423	p-Xylenes	1.000

Notes:

$f_{m\,305}$=Method 305 fraction measure factor

a. CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

b. Denotes a HAP that hydrolyzes quickly in water, but the hydrolysis products are also HAP chemicals.

c. Denotes a HAP that may react violently with water, exercise caustic is an expected analyte.

d. Denotes a HAP that hydrolyzes slowly in water.

e. Several glycol ethers meet the criteria used to select HAP for the purposes of this subpart. The $f_{m\,305}$ factors for some of the more common glycol ethers are listed below:

Ethylene glycol dimethyl ether ($f_{m\,305}$=0.861)

Ethylene glycol monoethyl ether acetate ($f_{m\,305}$=0.0887)

Ethylene glycol monomethyl ether acetate ($f_{m\,305}$=0.0926)

Diethylene glycol diethyl ether ($f_{m\,305}$=0.216)

TABLE 2 TO SUBPART DD.—APPLICABILITY OF PARAGRAPHS IN 40 CFR 63 SUBPART A, GENERAL PROVISIONS, TO SUBPART DD

Subpart A reference	Applies to subpart DD	Comment
63.1(a)(1)	Yes.	
63.1(a)(2)	Yes.	
63.1(a)(3)	Yes.	
63.1(a)(4)	No	Subpart DD (this table) specifies applicability of each paragraph in subpart A to subpart DD.
63.1(a)(5)–63.1(a)(9)	No.	
63.1(a)(10)	Yes.	
63.1(a)(11)	Yes.	
63.1(a)(12)	Yes.	
63.1(a)(13)	Yes.	

TABLE 2 TO SUBPART DD.—APPLICABILITY OF PARAGRAPHS IN 40 CFR 63 SUBPART A, GENERAL PROVISIONS, TO SUBPART DD—Continued

Subpart A reference	Applies to subpart DD	Comment
63.1(a)(14)	Yes.	
63.1(b)(1)	No	Subpart DD specifies its own applicability.
63.1(b)(2)	Yes.	
63.1(b)(3)	No.	
63.1(c)(1)	No	Subpart DD explicitly specifies requirements that apply.
63.1(c)(2)	No	Area sources are not subject to subpart DD.
63.1(c)(3)	No.	
63.1(c)(4)	Yes.	
63.1(c)(5)	Yes	Except that sources are not required to submit notifications overridden by this table.
63.1(d)	No.	
63.1(e)	No.	
63.2	Yes	§ 63.681 of subpart DD specifies that if the same term is defined in subparts A and DD, it shall have the meaning given in subpart DD.
63.3	Yes.	
63.4(a)(1)–63.4(a)(3)	Yes.	
63.4(a)(4)	No	Reserved.
63.4(a)(5)	Yes.	
63.4(b)	Yes.	
63.4(c)	Yes.	
63.5(a)(1)	Yes	Except replace term ''source'' and ''stationary source'' in § 63.5(a)(1) of subpart A with ''affected source.''
63.5(a)(2)	Yes.	
63.5(b)(1)	Yes.	
63.5(b)(2)	No	Reserved.
63.5(b)(3)	Yes.	
63.5(b)(4)	Yes	Except the cross-reference to § 63.9(b) is changed to § 63.9(b)(4) and (5). Subpart DD overrides § 63.9(b)(2) and (b)(3).
63.5(b)(5)	Yes.	
63.5(b)(6)	Yes.	
63.5(c)	No	Reserved.
63.5(d)(1)(i)	Yes.	
63.5(d)(1)(ii)	Yes.	
63.5(d)(1)(iii)	Yes.	
63.5(d)(2)	No.	
63.5(d)(3)	Yes.	
63.5(d)(4)	Yes.	
63.5(e)	Yes.	
63.5(f)(1)	Yes.	
63.5(f)(2)	Yes.	
63.6(a)	Yes.	
63.6(b)(1)	No	Subpart DD specifies compliance dates for sources subject to subpart DD.
63.6(b)(2)	No.	
63.6(b)(3)	Yes.	
63.6(b)(4)	No	May apply when standards are proposed under section 112(f) of the Clean Air Act.
63.6(b)(5)	No	§ 63.697 of subpart DD includes notification requirements.
63.6(b)(6)	No.	
63.6(b)(7)	No.	
63.6(c)(1)	No	§ 63.680 of subpart DD specifies the compliance date.
63.6(c)(2)–63.6(c)(4)	No.	
63.6(c)(5)	Yes.	
63.6(d)	No.	
63.6(e)	Yes.	
63.6(f)(1)	Yes.	
63.6(f)(2)(i)	Yes.	
63.6(f)(2)(ii)	Yes	Subpart DD specifies the use of monitoring data in determining compliance with subpart DD.
63.6(f)(2)(iii) (A), (B), and (C)	Yes.	
63.6(f)(2)(iii) (D)	No.	
63.6(f)(2)(iv)	Yes.	
63.6(f)(2)(v)	Yes.	
63.6(f)(3)	Yes.	
63.6(g)	Yes.	
63.6(h)	No	Subpart DD does not require opacity and visible emission standards.
63.6(i)	Yes	Except for § 63.6(i)(15), which is reserved.
63.6(j)	Yes.	
63.7(a)(1)	No	Subpart DD specifies required testing and compliance demonstration procedures.
63.7(a)(2)	Yes.	
63.7(a)(3)	Yes.	
63.7(b)	No.	
63.7(c)	No.	

TABLE 2 TO SUBPART DD.—APPLICABILITY OF PARAGRAPHS IN 40 CFR 63 SUBPART A, GENERAL PROVISIONS, TO SUBPART DD—Continued

Subpart A reference	Applies to subpart DD	Comment
63.7(d)	Yes.	
63.7(e)(1)	Yes.	
63.7(e)(2)	Yes.	
63.7(e)(3)	No	Subpart DD specifies test methods and procedures.
63.7(e)(4)	Yes.	
63.7(f)	No	Subpart DD specifies applicable methods and provides alternatives.
63.7(g)	Yes.	
63.7(h)(1)	Yes.	
63.7(h)(2)	Yes.	
63.7(h)(3)	Yes.	
63.7(h)(4)	No.	
63.7(h)(5)	Yes.	
63.8(a)	No.	
63.8(b)(1)	Yes.	
63.8(b)(2)	No	Subpart DD specifies locations to conduct monitoring.
63.8(b)(3)	Yes.	
63.8(c)(1)(i)	Yes.	
63.8(c)(1)(ii)	Yes.	
63.8(c)(1)(iii)	Yes.	
63.8(c)(2)	Yes.	
63.8(c)(3)	Yes.	
63.8(c)(4)	No	Subpart DD specifies monitoring frequency
63.8(c)(5)–63.8(c)(8)	No.	
63.8(d)	No.	
63.8(e)	No.	
63.8(f)(1)	Yes.	
63.8(f)(2)	Yes.	
63.8(f)(3)	Yes.	
63.8(f)(4)(i)	Yes.	
63.8(f)(4)(ii)	Yes.	
63.8(f)(4)(iii)	No.	
63.8(f)(5)(i)	Yes.	
63.8(f)(5)(ii)	No.	
63.8(f)(5)(iii)	Yes.	
63.8(f)(6)	Yes.	
63.8(g)	Yes.	
63.9(a)	Yes.	
63.9(b)(1)(i)	Yes.	
63.9(b)(1)(ii)	No.	
63.9(b)(2)	Yes.	
63.9(b)(3)	No.	
63.9(b)(4)	Yes.	
63.9(b)(5)	Yes.	
63.9(c)	Yes.	
63.9(d)	Yes.	
63.9(e)	No.	
63.9(f)	No.	
63.9(g)	No.	
63.9(h)	Yes.	
63.9(i)	Yes.	
63.9(j)	No.	
63.10(a)	Yes.	
63.10(b)(1)	Yes.	
63.10(b)(2)(i)	Yes.	
63.10(b)(2)(ii)	Yes.	
63.10(b)(2)(iii)	No.	
63.10(b)(2)(iv)	Yes.	
63.10(b)(2)(v)	Yes.	
63.10(b)(2) (vi)–(ix)	No.	
63.10(b)(2)(x)	Yes.	
63.10(b)(2) (xii)–(xiv)	No.	
63.10(b)(3)	No.	
63.10(c)	No.	
63.10(d)(1)	No.	
63.10(d)(2)	Yes.	
63.10(d)(3)	No.	
63.10(d)(4)	Yes.	
63.10(d)(5)(i)	Yes.	
63.10(d)(5)(ii)	Yes.	
63.10(e)	No.	

TABLE 2 TO SUBPART DD.—APPLICABILITY OF PARAGRAPHS IN 40 CFR 63 SUBPART A, GENERAL PROVISIONS, TO SUBPART DD—Continued

Subpart A reference	Applies to subpart DD	Comment
63.10(f)	Yes.	
63.11–63.15	Yes.	

Note: Wherever subpart A specifies ''postmark'' dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent by the specified dates, but a postmark is not required.

TABLE 3 TO SUBPART DD.—TANK CONTROL LEVELS FOR TANKS AT EXISTING AFFECTED SOURCES AS REQUIRED BY 40 CFR 63.685(b)(1)

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
Design capacity less than 75 m^3	Maximum HAP vapor pressure less than 76.6 kPa	Level 1.
Design capacity equal to or greater than 75 m^3 and less than 151 m^3.	Maximum HAP vapor pressure less than 27.6 kPa	Level 1.
	Maximum HAP vapor pressure equal to or greater than 27.6 kPa.	Level 2.
Design capacity equal to or greater than 151 m^3	Maximum HAP vapor pressures less than 5.2 kPa	Level 1.
	Maximum HAP vapor pressure equal to or greater than 5.2 kPa	Level 2.

TABLE 4 TO SUBPART DD.—TANK CONTROL LEVELS FOR TANKS AT NEW AFFECTED SOURCES AS REQUIRED BY 40 CFR 63.685(b)(2)

Tank design capacity (cubic meters)	Maximum HAP vapor pressure of off-site material managed in tank (kilopascals)	Tank control level
Design capacity less than 38 m^3	Maximum HAP vapor pressure less than 76.6 kPa	Level 1.
Design capacity equal to or greater than 38 m^3 and less than 151 m^3.	Maximum HAP vapor pressure less than 13.1 kPa	Level 1.
	Maximum HAP vapor pressure equal to or greater than 13.1 kPa.	Level 2.
Design capacity equal to or greater than 151 m^3	Maximum HAP vapor pressure less than 0.7 kPa	Level 1.
	Maximum HAP vapor pressure equal to or greater than 0.7 kPa	Level 2.

5. Part 63 is amended by adding subpart OO consisting of §§ 63.900 through 63.907 to read as follows:

Subpart OO—National Emission Standards for Tanks—Level 1

Sec.
63.900 Applicability.
63.901 Definitions.
63.902 Standards—Tank fixed roof.
63.903 [Reserved]
63.904 [Reserved]
63.905 Test methods and procedures.
63.906 Inspection and monitoring requirements.
63.907 Recordkeeping requirements.

Subpart OO—National Emission Standards for Tanks—Level 1

§ 63.900 Applicability.

The provisions of this subpart apply to the control of air emissions from tanks for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for tanks are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart A—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

§ 63.901 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that, when the device is secured in the closed position, prevents or reduces air emissions to the atmosphere by blocking an opening in a fixed roof. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Fixed roof means a cover that is mounted on a tank in a stationary position and does not move with fluctuations in the level of the liquid managed in the tank.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.905(a) of this subpart.

Regulated-material means the material (e.g. waste, wastewater, off-site material) required to be managed in tanks using air emission controls in accordance with the standards specified in this subpart.

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 the tank 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 purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath the tank cover. 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, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

Tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

§ 63.902 Standards—Tank fixed roof.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from a tank using a fixed roof.

(b) The tank shall be equipped with a fixed roof designed to meet the following specifications:

(1) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

(2) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(3) Each opening in the fixed roof shall be either:

(i) equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

(ii) connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever regulated material is managed in the tank.

(4) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(c) Whenever a regulated-material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(1) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(ii) To remove accumulated sludge or other residues from the bottom of tank.

(2) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(3) Opening of a safety device, as defined in § 63.901 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect the air emission control equipment in accordance with the requirements specified in § 63.906(a) of this subpart.

§ 63.903 [Reserved]

§ 63.904 [Reserved]

§ 63.905 Test methods and procedures.

(a) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the tank contains a material having an organic HAP concentration representative of the range of concentrations for the regulated-materials expected to be managed in the tank. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the regulated-material placed in the tank, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane in air at a concentration less than 10,000 ppmv.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60 appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as

possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

§ 63.906 Inspection and monitoring requirements.

(a) Owners and operators that use a tank equipped with a fixed roof in accordance with the provisions of § 63.902 of this subpart shall meet the following requirements:

(1) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) The owner or operator shall perform the inspections following installation of the fixed roof and, thereafter, at least once every year.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.907 (a) of this subpart.

(b) The owner or operator shall repair all detected defects as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (b)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the regulated-material normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the regulated-material managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(c) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.907(b) of this subpart.

§ 63.907 Recordkeeping requirements.

(a) Each owner or operator shall prepare and maintain a record for each tank that includes the following information:

(1) A tank identification number (or other unique identification description as selected by the owner or operator).

(2) A description of the tank dimensions and the tank design capacity.

(3) The date that each inspection required by § 63.906 of this subpart is performed.

(b) The owner or operator shall record the following information for each defect detected during inspections required by § 63.906 of this subpart: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.907(b)(2) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

6. Part 63 is amended by adding subpart PP consisting of §§ 63.920 through 63.928 to read as follows:

Subpart PP—National Emission Standards for Containers

Sec.

Subpart PP—National Emission Standards for Containers

§ 63.920 Applicability.

The provisions of this subpart apply to the control of air emissions from containers for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for containers are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR Part 63, subpart A—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

§ 63.921 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Container means a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as ''portable tanks'' or ''totes,'' cargo tank trucks, and tank railcars.

Closure device means a cover, cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air emissions to the atmosphere by blocking an opening in a container or its cover when the device is secured in the closed position. Closure devices include devices that are detachable from the container (e.g., a drum head, a threaded plug), manually operated (e.g., a hinged dumpster lid, a truck tank hatch), or automatically operated (e.g., a spring loaded pressure relief valve).

Empty container means a container for which either of the following conditions exists, as applicable: the regulated-material is a hazardous waste and the container meets the conditions for an empty container specified in 40 CFR 261.7(b); or all regulated-material has been removed from the container except for any regulated-material that remains on the interior surfaces of the container as clingage or in pools on the container bottom due to irregularities in the container.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.925(a) of this subpart.

Regulated-material means the material (e.g. waste, wastewater, off-site material) required to be managed in containers using air emission controls in accordance with the standards specified in this subpart.

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 container 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 purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the container such as during filling of the container or to adjust the internal pressure of the container 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 container and its air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

§ 63.922 Standards—Container Level 1 controls.

(a) This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 1 controls.

(b) A container using Container Level 1 controls is one of the following:

(1) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f) of this section.

(2) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum, a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a bulk cargo container equipped with a screw-type cap).

(3) An open-top container in which an organic vapor-suppressing barrier is placed on or over the regulated-material in the container such that no regulated-material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(c) A container used to meet the requirements of either paragraph (b)(2) or (b)(3) of this section shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the regulated-material to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability, the effects of contact with the material or its vapor managed in the container; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for container on which the cover is installed.

(d) Whenever a regulated-material is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(1) Opening of a closure device or cover is allowed for the purpose of adding material to the container as follows:

(i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either: the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaves the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(2) Opening of a closure device or cover is allowed for the purpose of removing material from the container as follows:

(i) For the purpose of meeting the requirements of this section, an empty container as defined in § 63.921 of this subpart may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container).

(ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in § 63.921 of this subpart, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes, or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(3) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(4) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive,

reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(5) Opening of a safety device, as defined in § 63.921 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(e) The owner or operator shall inspect containers using Container Level 1 controls in accordance with the procedures specified in § 63.926(a) of this subpart.

(f) For the purpose of compliance with paragraph (b)(1) of this section, containers shall be used that meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178—Specifications for Packagings or 49 CFR part 179—Specifications for Tank Cars.

(2) Regulated-material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107 subpart B—Exemptions; 49 CFR part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173—Shippers—General Requirements for Shipments and Packaging; and 49 CFR part 180—Continuing Qualification and Maintenance of Packagings.

(3) For the purpose of complying with this subpart, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in paragraph (f)(4) of this section.

(4) For a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with this subpart, an owner or operator may comply with the exceptions for those packagings specified in 49 CFR 173.12(b).

§ 63.923 Standards—Container Level 2 controls.

(a) This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 2 controls.

(b) A container using Container Level 2 controls is one of the following:

(1) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f) of this section.

(2) A container that has been demonstrated to operate with no detectable organic emissions as defined in § 63.921 of this subpart.

(3) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27 in Appendix A of 40 CFR part 60 in accordance with the procedure specified in § 63.925(b) of this subpart.

(c) Transfer of regulated-material in to or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the regulated-material to the atmosphere, to the extent practical, considering the physical properties of the regulated-material and good engineering and safety practices for handling flammable, ignitable, explosive, or other hazardous materials. Examples of container loading procedures that meet the requirements of this paragraph include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the regulated-material is filled, with subsequent purging of the transfer line before removing it from the container opening.

(d) Whenever a regulated-material is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(1) Opening of a closure device or cover is allowed for the purpose of adding material to the container as follows:

(i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaves the immediate vicinity of the container, or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(2) Opening of a closure device or cover is allowed for the purpose of removing material from the container as follows:

(i) For the purpose of meeting the requirements of this section, an empty container as defined in § 63.921 of this subpart may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container).

(ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in § 63.921 of this subpart, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(3) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(4) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal

pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(5) Opening of a safety device, as defined in § 63.921 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(e) The owner or operator shall inspect containers using Container Level 2 controls in accordance with the procedures specified in § 63.926(a) of this subpart.

(f) For the purpose of compliance with paragraph (b)(1) of this section, containers shall be used that meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178—Specifications for Packagings or 49 CFR part 179—Specifications for Tank Cars.

(2) Regulated-material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107 subpart B—Exemptions; 49 CFR part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173—Shippers—General Requirements for Shipments and Packaging; and 49 CFR part 180—Continuing Qualification and Maintenance of Packagings.

(3) For the purpose of complying with this subpart, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in paragraph (f)(4) of this section.

(4) For a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with this subpart, an owner or operator may comply with the exceptions for those packagings specified in 49 CFR 173.12(b).

§ 63.924 Standards—Container Level 3 controls.

(a) This section applies to owners and operators subject to this subpart and required to control air emissions from containers using Container Level 3 controls.

(b) A container using Container Level 3 controls is one of the following:

(1) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of paragraphs (c)(2) of this section.

(2) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of paragraphs (c)(1) and (c)(2) of this section.

(c) The owner or operator shall meet the following requirements as applicable to the type of air emission control equipment selected by the owner or operator:

(1) The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, Appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' initially when the enclosure is first installed and, thereafter, annually.

(2) The closed-vent system and control device shall be designed and operated in accordance with the requirements of 40 CFR 63.692.

(d) Safety devices, as defined in § 63.921 of this subpart, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with this section.

§ 63.925 Test methods and procedures.

(a) Procedure for determining no detectable organic emissions for the purpose of complying with of this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the container filled with a material having an organic HAP concentration representative of the range of concentrations for the regulated-materials expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the material placed in the container, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane in air at a concentration of approximately, but less than 10,000 ppmv.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60 appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(b) Procedure for determining a container to be vapor-tight for the purpose of complying with this subpart.

(1) The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A of this chapter.

(2) A pressure measurement device shall be used that has a precision of ± 2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

§ 63.926 Inspection and monitoring requirements.

(a) Owners and operators of containers using either Container Level 1 or Container Level 2 controls in accordance with the provisions of §§ 63.922 and 63.923 of this subpart, respectively, shall inspect the container and its cover and closure devices as follows:

(1) In the case when a regulated-material already is in the container at the time the owner or operator first accepts possession of the container at the facility site and the container is not emptied (i.e., does not meet the conditions for an empty container) within 24 hours after the container arrives at the facility site, the container and its cover and closure devices shall be visually inspected by the owner or operator to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (a)(3) of this section.

(2) In the case when a container used for managing regulated-material remains at the facility site for a period of 1 year or more, the container and its cover and closure devices shall be visually inspected by the owner or operator initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (a)(3) of this section.

(3) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the regulated-material shall be removed from the container and the container shall not be used to manage regulated-material until the defect is repaired.

(b) Owners and operators using Container Level 3 controls in accordance with the provisions of § 63.924 of this subpart shall inspect and monitor the closed-vent systems and control devices in accordance with the requirements of § 63.693 in 40 CFR Part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

§ 63.927 Recordkeeping requirements.

(a) Owners and operators that use Container Level 3 controls in accordance with the provisions of § 63.924 of this subpart shall prepare and maintain the following records:

(1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in ''Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure'' under 40 CFR 52.741, Appendix B.

(2) Records required for the closed-vent system and control device in accordance with the requirements of § 63.693 in 40 CFR Part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

§ 63.928 Reporting requirements.

(a) For owners and operators that use Container Level 3 controls in accordance with the provisions of § 63.924 of this subpart, the owner or operator shall prepare and submit to the Administrator the reports required for closed-vent systems and control devices in accordance with the requirements of § 63.693 in 40 CFR Part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

7. Part 63 is amended by adding subpart QQ consisting of §§ 63.940 through 63.948 to read as follows:

Subpart QQ—National Emission Standards for Surface Impoundments

Sec.

Subpart QQ—National Emission Standards for Surface Impoundments

§ 63.940 Applicability.

The provisions of this subpart apply to the control of air emissions from surface impoundments for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for surface impoundments are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart AA—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

§ 63.941 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air emissions to the atmosphere by blocking an opening in a surface impoundment cover when the device is secured in the closed position. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring loaded pressure relief valve).

Cover means an air-supported structure, rigid roof, or other device that prevents or reduces air pollutant emissions to the atmosphere by forming a continuous barrier over the material managed in a surface impoundment. A cover may have openings (such as access hatches) that are necessary for operation, inspection, maintenance, and repair of equipment in the surface impoundment on which the cover is used.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.944(a) of this subpart.

Regulated-material means the material (e.g. waste, wastewater, off-site material) required to be managed in containers using air emission controls in accordance with the standards specified in this subpart.

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 the surface impoundment 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 purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath the surface impoundment cover such as during filling of the surface impoundment or to adjust the pressure in this vapor headspace 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, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitible, explosive, reactive, or hazardous materials.

Surface impoundment means a unit that is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquids. Examples of surface impoundments include holding, storage, settling, and aeration pits, ponds, and lagoons.

§ 63.942 Standards—Surface impoundment floating membrane cover.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from a surface impoundment using a floating membrane cover.

(b) The surface impoundment shall be equipped with a floating membrane cover designed to meet the following specifications:

(1) The floating membrane cover shall be designed to float on the liquid surface during normal operations, and form a continuous barrier over the entire surface area of the liquid.

(2) The cover shall be fabricated from a synthetic membrane material that is either:

(i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm); or

(ii) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in paragraph (b)(2)(i) of this section; and chemical and physical properties that maintain the material integrity for the intended service life of the material.

(3) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.

(4) Except as provided for in paragraph (b)(5) of this section, each opening in the floating membrane cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

(5) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.

(6) The closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

(c) Whenever a regulated-material is in the surface impoundment, the floating membrane cover shall float on the liquid and each closure device shall be secured in the closed position except as follows:

(1) Opening of closure devices or removal of the cover is allowed at the following times:

(i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.

(ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

(2) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the pressure in the vapor headspace underneath the cover in accordance with the cover design specifications. The device shall be designed to operate with no detectable organic emissions as defined in § 63.941 of this subpart when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the cover vapor headspace pressure is within the pressure operating range determined by the owner or operator based on the cover manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitible, explosive, reactive, or hazardous materials.

(3) Opening of a safety device, as defined in § 63.941 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect the floating membrane cover in accordance with the procedures specified in § 63.946(a) of this subpart.

§ 63.943 Standards—Surface impoundment vented to control device.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from a surface impoundment using a cover and venting the vapor headspace underneath the cover through a closed-vent system to a control device.

(b) The surface impoundment shall be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(1) The cover and its closure devices shall be designed to form a continuous

barrier over the entire surface area of the liquid in the surface impoundment.

(2) Each opening in the cover not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions using the procedure specified in § 63.945(a) of this subpart.

(3) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

(4) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

(c) Whenever a regulated-material is in the surface impoundment, the cover shall be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:

(1) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

(i) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

(ii) To remove accumulated sludge or other residues from the bottom of surface impoundment.

(2) Opening of a safety device, as defined in § 63.941 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in § 63.946(b) of this subpart.

§ 63.944 [Reserved]

§ 63.945 Test methods and procedures.

(a) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the surface impoundment contains a material having an organic HAP concentration representative of the range of concentrations for the regulated-materials expected to be managed in the surface impoundment. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the regulated-material placed in the surface impoundment, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane in air at a concentration of approximately, but less than 10,000 ppmv.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

§ 63.946 Inspection and monitoring requirements.

(a) Owners and operators that use a surface impoundment equipped with a floating membrane cover in accordance with the provisions of § 63.942 of this subpart shall meet the following requirements:

(1) The floating membrane cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) The owner or operator shall perform the inspections following installation of the floating membrane cover and, thereafter, at least once every year.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (c) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements

specified in § 63.947(a)(2) of this subpart.

(b) Owners and operators that use a surface impoundment equipped with a cover and vented through a closed-vent system to a control device in accordance with the provisions of § 63.943 of this subpart shall inspect the air emission control equipment as follows:

(1) The owner or operator shall visually inspect the cover in accordance with the following requirements:

(i) The cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the interface of the roof edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform the inspections following installation of the cover and, thereafter, at least once every year.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (c) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.947(a)(2) of this subpart.

(2) The owner or operator shall inspect and monitor the closed-vent system and the control device in accordance with the requirements specified in § 63.693 in 40 CFR part 63 subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

(c) The owner or operator shall repair all detected defects as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (c)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative surface impoundment or tank capacity is available at the site to accept the regulated-material normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect at the next time the process or unit that is generating the regulated-material managed in the surface impoundment stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(3) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.947 of this subpart.

§ 63.947 Recordkeeping requirements.

(a) Each owner or operator shall prepare and maintain the following records:

(1) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment.

(2) A record for each inspection required by § 63.946 of this subpart that includes the following information: a surface impoundment identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(3) The owner or operator shall record for each defect detected during inspections required by § 63.946 of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.946(c)(2) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(b) Owners and operators that use a surface impoundment equipped with a fixed-roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.943 of this subpart shall prepare and maintain the records required for the closed-vent system and control device in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

§ 63.948 Reporting requirements.

Owners and operators that use a surface impoundment equipped with a fixed-roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.943 of this subpart shall prepare and submit to the Administrator the reports required for closed-vent systems and control devices in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

8. Part 63 is amended by adding subpart RR consisting of §§ 63.960 through 63.966 to read as follows:

Subpart RR—National Emission Standards for Individual Drain Systems

Sec.

Subpart RR—National Emission Standards for Individual Drain Systems

§ 63.960 Applicability.

(a) The provisions of this subpart apply to the control of air emissions from individual drain systems for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for individual drain systems are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart A—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

§ 63.961 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Closure device means a cap, cover, hatch, lid, plug, seal, valve, or other type of fitting that, when the device is secured in the closed position, prevents or reduces air emissions to the atmosphere by blocking an opening to the individual drain system. Closure devices include devices that are detachable (e.g., a plug or manhole cover), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Hard-piping means pipe or tubing that is manufactured and properly installed in accordance with relevant standards (e.g., ANSI B31–3) and good engineering practices.

Individual drain system means a stationary system used to convey wastewater streams or residuals to a waste management unit or to discharge or disposal. The term includes hard-piping, all drains and junction boxes, together with their associated sewer

lines and other junction boxes (e.g., manholes, sumps, and lift stations) conveying wastewater streams or residuals. For the purpose of this subpart, an individual drain system is not a drain and collection system that is designed and operated for the sole purpose of collecting rainfall runoff (e.g., stormwater sewer system) and is segregated from all other individual drain systems.

Junction box means a sump, manhole, or access point to a sewer line or a lift station.

Sewer line means a lateral, trunk line, branch line, or other conduit used to convey wastewater to a downstream waste management unit. Sewer lines include pipes, grates, and trenches.

Waste management unit means the equipment, structure, or device used to convey, store, treat, or dispose of wastewater streams or residuals. Examples of waste management units include: wastewater tanks, surface impoundments, individual drain systems, and biological wastewater treatment units. Examples of equipment that may be waste management units include containers, air flotation units, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units.

Water seal means a seal pot, p-leg trap, or other type of trap filled with water (e.g., flooded sewers that maintain liquid levels adequate to prevent air flow through the system) that creates a liquid barrier between the sewer line and the atmosphere. The liquid level of the seal must be maintained in the vertical leg of a drain in order to be considered a water seal.

§ 63.962 Standards.

(a) The owner or operator subject to this subpart shall control air emissions from the individual drain system using one or a combination of the following:

(1) Covers, water seals, and other air emission control equipment as specified in paragraph (b) of this section.

(2) Hard-piping.

(3) Venting of the individual drain system through a closed vent system to a control device in accordance with the following requirements:

(i) The individual drain system is designed and operated such that an internal pressure in the vapor headspace in the system is maintained at a level less than atmospheric pressure when the control device is operating, and

(ii) The closed vent system and control device are designed and operated in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

(b) Owners and operators controlling air emissions from an individual drain system in accordance with paragraph (a)(1) of this section shall meet the following requirements:

(1) The individual drain system shall be designed to segregate the organic vapors from wastewater managed in the controlled individual drain system from entering any other individual drain system that is not controlled for air emissions in accordance with the standards specified in this subpart.

(2) *Drain control requirements.* Each drain shall be equipped with either a water seal or a closure device in accordance with the following requirements:

(i) When a water seal is used, the water seal shall be designed such that either:

(A) The outlet to the pipe discharging the wastewater extends below the liquid surface in the water seal of the drain; or

(B) A flexible shield or other device is installed which restricts wind motion across the open space between the outlet of the pipe discharging the wastewater and the drain.

(ii) When a closure device is used (e.g., securing a cap or plug on a drain that is not receiving wastewater), the closure device shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the drain opening and the closure device.

(3) *Junction box control requirements.* Each junction box shall be equipped with controls as follows:

(i) The junction box shall be equipped with a closure device (e.g., manhole cover, access hatch) that is designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the junction box opening and the closure device.

(ii) If the junction box is vented, the junction box shall be vented in accordance with the following requirements:

(A) The junction box shall be vented through a closed vent system to a control device except as provided for in paragraph (b)(3)(ii)(B) of this section. The closed vent system and control device shall be designed and operated in accordance in accordance with the standards specified in § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutant Standards from Off-Site Waste and Recovery Operations.

(B) As an alternative to paragraph (b)(3)(ii)(A) of this section, the owner or operator may vent the junction box directly to the atmosphere when all of the following conditions are met:

(*1*) The junction box is filled and emptied by gravity flow (i.e., there is no pump) or is operated with no more than slight fluctuations in the liquid level. Large changes in the size of the junction box vapor headspace created by using a pump to repeatedly empty and then refill the junction box do not meet this condition.

(*2*) The vent pipe installed on the junction box shall be at least 90 centimeters in length and no greater than 10.2 centimeter in diameter.

(*3*) Water seals are installed at the liquid entrance(s) to or exit from the junction box to restrict ventilation in the individual drain system and between components in the individual drain system. The owner or operator shall demonstrate (e.g., by visual inspection or smoke test) upon request by the Administrator that the junction box water seal is properly designed and restricts ventilation.

(4) *Sewer line control requirements.* Each sewer line shall not be open to the atmosphere and shall be covered or closed in a manner such that there are no visible cracks, holes, gaps, or other open spaces in the sewer line joints, seals, or other emission interfaces.

(5) *Operating requirements.* The owner or operator shall operate the air emission controls required by paragraphs (b)(2) through (b)(4) of this section in accordance with the following requirements:

(i) Each closure device shall be maintained in a closed position whenever wastewater is in the individual drain system except when it is necessary to remove or open the closure device for sampling or removing material in the individual drain system, or for equipment inspection, maintenance, or repair.

(ii) Each drain equipped with a water seal and open to the atmosphere shall be operated to ensure that the liquid in the water seal is maintained at the appropriate level. Examples of acceptable means for complying with this provision include but are not limited to using a flow-monitoring device indicating positive flow from a main to a branch water line supplying a trap; continuously dripping water into the trap using a hose; or regular visual observations.

(iii) Each closed-vent system and the control device used to comply with paragraph (b)(3)(ii)(A) of this section

shall be operated in accordance with the standards specified in 40 CFR 63.693.

§ 63.963 [Reserved].

§ 63.964 Inspection and monitoring requirements.

(a) The owner or operator shall inspect the individual drain system in accordance with the following requirements:

(1) The individual drain system shall be visually inspected by the owner or operator as follows to check for defects that could result in air emissions to the atmosphere.

(i) The owner or operator shall visually inspect each drain as follows:

(A) In the case when the drain is using a water seal to control air emissions, the owner or operator shall verify appropriate liquid levels are being maintained and identify any other defects that could reduce water seal control effectiveness.

(B) In the case when the drain is using a closure device to control air emissions, the owner or operator shall visually inspect each drain to verify that the closure device is in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, or gaps in the closure devices; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing plugs, caps, or other closure devices.

(ii) The owner or operator shall visually inspect each junction box to verify that closure devices are in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, or gaps in the closure devices; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(iii) The owner or operator shall visually inspect the unburied portion of each sewer line to verify that all closure devices are in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, gaps, or other open spaces in the sewer line joints, seals, or other emission interfaces.

(iv) The owner or operator shall perform the inspections initially at the time of installation of the water seals and closure devices for the individual drain system and, thereafter, at least once every year.

(v) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b) of this section.

(vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.965(a) of this subpart.

(2) The owner or operator shall inspect and monitor the closed-vent system and the control device in accordance with the requirements specified in § 63.693 in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(b) The owner or operator shall repair all detected defects as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 15 calendar days after detection except as provided in paragraph (b)(2) of this section.

(2) Repair of a defect may be delayed beyond 15 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the individual drain system and no alternative capacity is available at the facility site to accept the wastewater normally managed in the individual drain system. In this case, the owner or operator shall repair the defect at the next time the process or unit that is generating the wastewater managed in the individual drain system stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(3) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.965(a)(3) of this subpart.

§ 63.965 Recordkeeping requirements.

(a) Each owner or operator complying with § 63.962(a)(1) of this subpart shall prepare and maintain the following records:

(1) A written site-specific individual drain system inspection plan that includes a drawing or schematic of the individual drain system and identifies each drain, junction box, and sewer line location.

(2) A record of the date that each inspection required by § 63.964(a) of this subpart is performed.

(3) When applicable, a record for each defect detected during inspections required by § 63.964(a) of this subpart that includes the following information: the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and the date that the corrective action was completed. In the event that repair of the defect is delayed in accordance with the provisions of § 63.964(b)(2) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(b) Owners and operators that use a closed-vent system and a control device in accordance with the provisions of § 63.962(a)(3) or § 63.692(b)(3)(ii)(A) of this subpart shall prepare and maintain the records required for the closed-vent system and control device in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

§ 63.966 Reporting requirements.

Owners and operators that use a closed-vent system and a control device in accordance with the provisions of § 63.962(a)(3) or § 63.962(b)(3)(ii)(A) of this subpart shall prepare and submit to the Administrator the reports required for closed-vent systems and control devices in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

9. Part 63 is amended by adding subpart VV consisting of §§ 63.1040 through 63.1049 to read as follows:

Subpart VV—National Emission Standards for Oil-Water Separators and Organic-Water Separators

Sec.

Subpart VV—National Emission Standards for Oil-Water Separators and Organic-Water Separators

63.1040 Applicability.

The provisions of this subpart apply to the control of air emissions from oil-water separators and organic-water separators for which another subpart of 40 CFR parts 60, 61, or 63 references the use of this subpart for such air emission control. These air emission standards for oil-water separators and organic-water separators are placed here for administrative convenience and only apply to those owners and operators of facilities subject to the other subparts that reference this subpart. The provisions of 40 CFR part 63, subpart

A—General Provisions do not apply to this subpart except as noted in the subpart that references this subpart.

§ 63.1041 Definitions.

All terms used in this subpart shall have the meaning given to them in the Act and in this section. If a term is defined in both this section and in another subpart that references the use of this subpart, then the definition in this subpart shall take precedence when implementing this subpart.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that, when the device is secured in the closed position, prevents or reduces air emissions to the atmosphere by blocking an opening in a fixed roof or floating roof. Closure devices include devices that are detachable from the cover (e.g., a sampling port cap), manually operated (e.g., a hinged access lid or hatch), or automatically operated (e.g., a spring-loaded pressure relief valve).

Continuous seal means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a separator. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

Fixed roof means a cover that is mounted on a separator in a stationary position and does not move with fluctuations in the level of the liquid managed in the separator.

Floating roof means a pontoon-type or double-deck type cover that rests upon and is supported by the liquid managed in a separator.

Liquid-mounted seal means a foam- or liquid-filled continuous seal that is mounted between the wall of the separator and the floating roof, and the seal is in contact with the liquid in a separator.

Oil-water separator means a separator as defined for this subpart that is used to separate oil from water.

Organic-water separator means a separator as defined for this subpart that is used to separate organics from water.

Metallic shoe seal means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the separator by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.1046(a) of this subpart.

Regulated-material means the material (e.g. waste, wastewater, off-site material) required to be managed in separators using air emission controls in accordance with the standards specified in this subpart.

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 the separator 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 purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath the separator cover. 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, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

Separator means a waste management unit, generally a tank, that is used to separate oil or organics from water. A separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to any additional treatment units such as an air flotation unit clarifier or biological treatment unit. Examples of a separator include an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

§ 63.1042 Standards—Separator fixed roof.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from an oil-water separator or organic-water separator using a fixed roof.

(b) The separator shall be equipped with a fixed roof designed to meet the following specifications:

(1) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the separator.

(2) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the separator wall.

(3) Each opening in the fixed roof shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device.

(4) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid and its vapors managed in the separator; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the separator on which the fixed roof is installed.

(c) Whenever a regulated-material is in the separator, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(1) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the separator for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the separator, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the separator.

(ii) To remove accumulated sludge or other residues from the bottom of separator.

(2) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the pressure in vapor headspace underneath the fixed roof in accordance with the separator design specifications. The device shall be designed to operate with no detectable organic emissions, as determined using the procedure specified in § 63.1046(a) of this subpart, when the device is

secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the pressure in the vapor headspace underneath the fixed roof is within the pressure operating range determined by the owner or operator based on the cover manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

(3) Opening of a safety device, as defined in § 63.1041 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect the fixed roof and any closure devices in accordance with the requirements specified in § 63.1047(a) of this subpart.

§ 63.1043 Standards—Separator floating roof.

(a) This section applies to owners and operators subject to this subpart and controlling air emissions from an oil-water separator or organic-water separator using a floating roof.

(b) The separator shall be equipped with a floating roof designed to meet the following specifications:

(1) The floating roof shall be designed to float on the liquid surface during normal operations.

(2) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the separator and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(i) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in § 63.1041 of this subpart. The total area of the gaps between the separator wall and the primary seal shall not exceed 67 square centimeters (cm^2) per meter of separator wall perimeter, and the width of any portion of these gaps shall not exceed 3.8 centimeters (cm).

(ii) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the separator. The total area of the gaps between the separator wall and the secondary seal shall not exceed 6.7 square centimeters (cm^2) per meter of separator wall perimeter, and the width of any portion of these gaps shall not exceed 1.3 centimeters (cm).

(3) Except as provided for in paragraph (b)(4) of this section, each opening in the floating roof shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

(4) The floating roof may be equipped with one or more emergency roof drains for removal of stormwater. Each emergency roof drain shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.

(c) Whenever a regulated-material is in the separator, the floating roof shall float on the liquid (i.e., off the roof supports) and each closure device shall be secured in the closed position except as follows:

(1) Opening of closure devices is allowed at the following times:

(i) To provide access to the separator for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the separator, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position.

(ii) To remove accumulated sludge or other residues from the bottom of separator.

(2) Opening of a safety device, as defined in § 63.1041 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect the floating roof in accordance with the procedures specified in § 63.1047(b) of this subpart.

§ 63.1044 Standards—Separator vented to control device.

(a) This section applies to owners and operators controlling air emissions from an oil-water or organic-water separator using a fixed roof and venting the vapor headspace underneath the fixed roof through a closed-vent system to a control device.

(b) The separator shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(1) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the separator.

(2) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions, as determined using the procedure specified in § 63.1046(a) of this subpart.

(3) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the separator; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the separator on which the fixed roof is installed.

(4) The closed-vent system and control device shall be designed and operated in accordance with the requirements of § 63.693 in 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(c) Whenever a regulated-material is in the separator, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(1) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the separator for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the separator, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity,

the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the separator.

(ii) To remove accumulated sludge or other residues from the bottom of separator.

(2) Opening of a safety device, as defined in § 63.1041 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(d) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in § 63.1047(c) of this subpart.

§ 63.1045 [Reserved]

§ 63.1046 Test methods and procedures.

(a) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the separator contains a material having an organic HAP concentration representative of the range of concentrations for the regulated-materials expected to be managed in the separator. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the regulated-material placed in the separator, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane in air at a concentration of approximately, but less than, 10,000 ppmv.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60 appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(b) Procedure for performing floating roof seal gap measurements for the purpose of complying with this subpart.

(1) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually.

(2) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(3) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the separator and measure the circumferential distance of each such location.

(4) For a seal gap measured under paragraph (b)(2) of this section, the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the separator wall to the seal and multiplying each such width by its respective circumferential distance.

(5) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal perimeter of the separator basin. These total gap areas for the primary seal and secondary seal then are compared to the respective standards for the seal type as specified in § 63.1043(b)(2) of this subpart.

§ 63.1047 Inspection and monitoring requirements.

(a) Owners and operators that use a separator equipped with a fixed roof in accordance with the provisions of § 63.1042 of this subpart shall meet the following requirements:

(1) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions to the atmosphere. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) The owner or operator shall perform the inspections following installation of the fixed roof and, thereafter, at least once every year.

(3) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d) of this section.

(4) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.1048(a)(2) of this subpart.

(b) Owners and operators that use a separator equipped with a floating roof in accordance with the provisions of § 63.1043 of this subpart shall meet the following requirements:

(1) The owner or operator shall measure the floating roof seal gaps using the procedure specified in § 63.1046(b) of this subpart in accordance with the following requirements:

(i) The owner or operator shall perform measurements of gaps between the separator wall and the primary seal within 60 days after initial operation of the separator following installation of the floating roof and, thereafter, at least once every 5 years.

(ii) The owner or operator shall perform measurements of gaps between the separator wall and the secondary seal within 60 days after initial operation of the separator following installation of the floating roof and, thereafter, at least once every year.

(iii) If a separator ceases to hold regulated-material for a period of 1 year or more, subsequent introduction of regulated-material into the separator shall be considered an initial operation for the purpose of complying with paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(iv) In the event that the seal gap measurements do not conform to the specifications in § 63.1043(b)(2) of this subpart, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d) of this section.

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.1048 (a)(2) and (b) of this subpart.

(2) The owner or operator shall visually inspect the floating roof in accordance with the following requirements:

(i) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions to the atmosphere. Defects include, but are not limited to: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the separator; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform the inspections following installation of the floating roof and, thereafter, at least once every year.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.1048(a)(2) of this subpart.

(c) Owners and operators that use a separator equipped with a fixed roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.1044 of this subpart shall inspect the air emission control equipment as follows:

(1) The owner or operator shall visually inspect the fixed roof in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform the inspections following installation of the fixed roof and, thereafter, at least once every year.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (d) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in § 63.1048(a)(2) of this subpart.

(2) The owner or operator shall inspect and monitor the closed-vent system and the control device in accordance with the requirements specified in § 63.693 in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

(d) The owner or operator shall repair all detected defects as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (d)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the separator and no alternative treatment capacity is available at the facility site to accept the regulated-material normally treated in the separator. In this case, the owner or operator shall repair the defect at the next time the process or unit that is generating the regulated-material managed in the separator stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(3) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in § 63.1048(a)(3) of this subpart.

§ 63.1048 Recordkeeping requirements.

(a) Each owner or operator shall prepare and maintain the following records:

(1) Documentation describing the design of each floating roof and fixed roof installed on a separator, as applicable to the separator. When a floating roof is used, the documentation shall include the dimensions of the separator bay or section in which the floating roof is installed.

(2) A record for each inspection required by § 63.1047 of this subpart that includes the following information: a separator identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(3) The owner or operator shall record for each defect detected during inspections required by § 63.1047 of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of § 63.1047(d)(2) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(b) Owners and operators that use a separator equipped with a floating roof in accordance with the provisions of § 63.1043 of this subpart shall prepare and maintain records for each inspection required by § 63.1047(b)(1) describing the results of the seal gap measurements. The records shall include the date of the measurements performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in § 63.1043(b)(2) of this subpart, the records shall include a description of the repairs that were made, the date the repairs were made, and the date the separator was emptied, if necessary.

(c) Owners and operators that use a separator equipped with a fixed-roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.1044 of this subpart shall prepare and maintain the records required for the closed-vent system and control device in accordance with the requirements of § 63.693 in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

§ 63.1049 Reporting requirements.

(a) Owners and operators that use a separator equipped with a floating roof in accordance with the provisions of § 63.1043 of this subpart shall notify the Administrator at least 30 calendar days prior to each seal gap measurement inspection performed to comply with the requirements in § 63.1047(b)(1) of this subpart.

(b) Owners and operators that use a separator equipped with a fixed-roof and vented through a closed-vent system to a control device in accordance with the provisions of § 63.1044 of this subpart shall prepare and submit to the Administrator the reports required for

closed-vent systems and control devices in accordance with the requirements of § 63.693 in 40 CFR 63 subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

10. Part 63 is amended by adding appendix D to read as follows:

Appendix D to Part 63—Alternative Validation Procedure for EPA Waste and Wastewater Methods

1. Applicability

This procedure is to be applied exclusively to Environmental Protection Agency methods developed by the Office of Water and the Office of Solid Waste. Alternative methods developed by any other group or agency shall be validated according to the procedures in Sections 5.1 and 5.3 of Test Method 301, 40 CFR Part 63, Appendix A. For the purposes of this appendix, ''waste'' means waste and wastewater.

2. Procedure

This procedure shall be applied once for each waste matrix. Waste matrix in the context of this procedure refers to the target compound mixture in the waste as well as the formulation of the medium in which the target compounds are suspended. The owner or operator shall prepare a sampling plan. Wastewater samples shall be collected using sampling procedures which minimize loss of organic compounds during sample collection and analysis and maintain sample integrity. The sample plan shall include procedures for determining recovery efficiency of the relevant compounds regulated in the applicable subpart. An example of an acceptable sampling plan would be one that incorporates similar sampling and sample handling requirements to those of Method 25D of 40 CFR part 60, appendix A.

2.1. Sampling and Analysis

2.1.1. For each waste matrix, collect twice the number of samples required by the applicable regulation. Designate and label half the sample vials the ''spiked'' sample set, and the other half the ''unspiked'' sample set. Immediately before or immediately after sampling (immediately after in the context of this procedure means after placing the sample into the sample vial, but before the sample is capped, cooled, and shipped to the laboratory for analysis), inject, either individually or as a solution, all the target compounds into each spiked sample.

2.1.2. The mass of each spiked compound shall be 40 to 60 percent of the mass expected to be present in the waste matrix. If the concentration of the target compounds in the waste are not known, the mass of each spiked compound shall be 40 to 60 percent of the limit allowed in the applicable regulation. Analyze both sets of samples (spiked and unspiked) with the chosen method.

3. Calculations

For each pair of spiked and unspiked samples, determine the fraction of spiked compound recovered (R) using the following equations.

where:

m_r = mass spiked compound measured (μg).

m_s = total mass of compound measured in spiked sample (μg).

m_u = total mass of compound measured in unspiked sample (μg).

where:

S = theoretical mass of compound spiked into spiked sample (μg).

3.1. Method Evaluation

In order for the chosen method to be acceptable for a compound, $0.70 \leq R \leq 1.30$ (R in this case is an average value of all the spiked and unspiked sample set R values). If the average R value does not meet this criterion for a target compound, the chosen method is not acceptable for that compound, and therefore another method shall be evaluated for acceptance (by repeating the procedures outlined above with another method).

3.2. Records and Reports

Report the average R value in the test report and correct all reported measurements made with the method with the calculated R value for that compound by using the following equation:

$$\text{Reported Result} = \frac{\text{Measured Mass of Compound}}{\text{R for that compound}}$$

3.3. Optional Correction Step

If the applicable regulation allows for correction of the mass of the compound in the waste by a published f_m value, multiply the reported result calculated above with the appropriate f_m value for that compound.

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