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National Emission Standards for Hazardous Air Pollutants; Manufacture of Amino/Phenolic Resins; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD–6173–3]

RIN 2060–AE36

National Emission Standards for Hazardous Air Pollutants; Manufacture of Amino/Phenolic Resins

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule and notice of public hearing.

SUMMARY: The proposed rule would reduce air emissions of hazardous air pollutants (HAP) from existing and new sources that manufacture amino or phenolic resins. The proposed rule would implement section 112 of the Clean Air Act Amendments of 1990 (Act) and is based on the Administrator's determination that amino/phenolic resin sources emit HAP identified on the EPA's list of 188 HAP.

The resins covered by the proposed rule use formaldehyde as a primary feedstock. The major HAP emitted by sources covered by the proposed rule include formaldehyde, methanol, phenol, xylene, and toluene. Beginning with the first year after sources are required to comply with the proposed rule, the EPA concludes that the proposed rule is estimated to reduce HAP emissions from existing sources by 356 megagrams per year (Mg/yr) from a baseline level of 644 Mg/yr. This is a 55 percent reduction.

The published list of source categories included the amino resins production source category and the phenolic resins production source category. These two products can broadly be classified as formaldehyde-based thermosetting resins. These two source categories are being combined into one source category (i.e., the amino/phenolic resins production source category) and are treated as a single source category for the purposes of this rulemaking.

DATES: *Comments:* Comments must be received on or before February 12, 1999. For information on submitting electronic comments see the **SUPPLEMENTARY INFORMATION** section of this document.

Public Hearing: A public hearing will be held, if requested, to provide interested persons an opportunity for oral presentation of data, views, or arguments concerning the proposed standards for the manufacture of Amino/Phenolic Resins. If anyone contacts the EPA requesting to speak at a public hearing by January 11, 1999, a public hearing will be held on January 28, 1999 beginning at 9:30 a.m.

ADDRESSES: *Comments:* Comments should be submitted (in duplicate, if possible) to: Air and Radiation Docket and Information Center (MC–6102) Attention: Docket No. A–92–19, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. The EPA requests that a separate copy also be sent to John Schaefer, USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711, telephone (919) 541–0296, fax (919) 541–3470 and e-mail: schaefer.john@EPAMAIL.EPA.GOV.

Comments and data may also be submitted electronically by following the instructions listed in **SUPPLEMENTARY INFORMATION**. No confidential business information (CBI) should be submitted through e-mail.

Public Hearing: Persons interested in attending the hearing should notify Ms. Maria Noell at (919) 541–5607, Organic Chemicals Group (MD–13) to verify that a hearing will occur. The public hearing, if required, will be held at the EPA's Office of Administration Auditorium, Research Triangle Park, North Carolina.

Request to Speak at Hearing: Persons wishing to present oral testimony must contact the EPA by January 11, 1999 by contacting Ms. Maria Noell; Organic Chemicals Group, (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5607.

Basis and Purpose Document: The basis and purpose document (BPD) may be obtained from the U.S. Environmental Protection Library (MD–35), Research Triangle Park, NC 27711, telephone (919) 541–2777. Please refer to ''National Emissions Standards for Hazardous Air Pollutants for Source Category: Manufacture of Amino/Phenolic Resins—Background Information for Proposed Standards'' for the BPD. This document may also be obtained electronically from the EPA's Technology Transfer Network (TNN) (see **SUPPLEMENTARY INFORMATION** for access information.)

Docket: A docket, No. A–92–19, containing information considered by the EPA in the development of the proposed standards for the Manufacture of Amino/Phenolic Resins, 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, DC 20460, telephone: (202) 260–7548. The docket is located at the above address in Room M–1500, Waterside Mall (ground floor). The proposed regulations, BPD, and other supporting information are available for inspection and copying. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For information concerning the proposed standard, contact Mr. John Schaefer, US EPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711, telephone (919) 541–0296.

SUPPLEMENTARY INFORMATION: *Regulated Entities:* Regulated categories and entities include:

Category	Examples of regulated entities
Manufacture of Amino/Phenolic Resins.	Amino/phenolic resins facilities.

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 this action, you should carefully examine the applicability criteria in § 63.1400 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.

Electronic comments and data can be sent directly to EPA at: A-and-R-Docket@epamail.epa.gov. Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments and data will also be accepted on diskette in Wordperfect 5.1 file format or 6.1 file format or ASCII file format. All comments and data in electronic form must be identified by the docket number A–92–19. Electronic comments may be filed online at many Federal Depository Libraries.

This document, the proposed regulatory texts, and BPD are available in docket number A–92–19 or by request from the EPA's Air and Radiation Docket and Information Center. (see **ADDRESSES**) Electronic copies of this document may also be obtained from the EPA Technology Transfer Network (TTN) via the internet at the following address: http://www.epa.gov/ttn/oarpg. The EPA TTN is a free service, except for the normal long distance charges that apply.

The following outline is provided to aid in reading the preamble to the proposed NESHAP for the Manufacture of Amino/Phenolic Resins. The information presented in this preamble is organized as follows:

Please note that in the rule which follows this preamble, §§ 63.1410, 63.1411, 63.1412, and 63.1416 are all reserved sections. This action was taken in order to maintain clarity and continuity in the rule if new sections need to be added to the rule at a later date.

I. List of Source Categories

A. Single Source Category

Section 112 of the Act requires that the EPA evaluate and control emissions of HAP. The control of HAP is achieved through promulgation of emission standards under sections 112(d) and 112(f) of the Act and work practice and equipment standards under section 112(h) of the Act for categories of sources that emit HAP. On July 16, 1992, the EPA published an initial list of major and area source categories to be regulated, (57 FR 31576), as required under section 112(c) of the Act. The amino resins production and phenolic resins production source categories were recorded separately on this initial list.

The EPA believes that it is technically feasible to regulate emissions from amino and phenolic resin manufacturing facilities by a single set of emission standards. As described in detail in Chapter 3 of the Basis and Purpose Document, the amino resins manufacturing process and the phenolic resins manufacturing process are very similar. At many facilities, the same process equipment is used to produce both amino and phenolic resins. For such facilities, complying with two different sets of standards would be difficult, if not impossible. In addition, the emission points for facilities manufacturing amino and phenolic resins are the same (reactor and non-reactor process vents, storage vessels, wastewater, and equipment leaks) and the resulting emission characteristics are very similar. Lastly, amino and phenolic manufacturing facilities use the same types of control devices to control HAP emissions from corresponding emission points; that is, there are no significant differences in the types of control technologies applicable to controlling emissions from amino and phenolic resins manufacturing processes. Another consideration in treating amino and phenolic resin facilities under a single set of standards is the cost involved in developing the standards and in complying with the standards. For the EPA, it is more efficient and less costly to develop a single standard than to develop separate standards for multiple source categories that have similar emission characteristics and applicable control technologies. A single set of standards will ensure that process equipment with comparable HAP emissions and control technologies are subject to consistent emission control requirements. In addition, compliance and enforcement activities will be more efficient and less costly.

In summary, the information obtained during the information gathering phase of the project demonstrated that the manufacturing processes, emission characteristics, and applicable control technologies for facilities in these two source categories are similar. Based on these factors, the EPA concluded that these two source categories are to be treated as a single source category for the purposes of this rulemaking. For purposes of this preamble and the proposed rule, the term amino/phenolic resin, and similar terms, will be used to indicate that the two source categories of amino resins and phenolic resins have been treated as a single source category for purposes of developing this rule.

B. Change of Source Category Name

Under today's action the EPA is proposing to revise the source category list published under section 112(c) of the Act to combine the Amino Resins Production and the Phenolic Resins Production source categories into a new category called ''Amino/Phenolic Resins Production.''

C. Industry Profile

Production methods used in the manufacture of amino/phenolic resins include both batch and continuous operations, although batch operations make up a majority of the process. The sizes of the major facilities range from 140 Mg/yr to 149,000 Mg/yr. Air emissions of HAP originate from breathing and withdrawal losses from storage vessels, venting of process vessels, leaks from piping and equipment used to transfer HAP (equipment leaks), and volatization of HAP from wastewater streams. HAP emitted from the amino/phenolic production processes include a range of compounds. Among the most prevalent are formaldehyde, methanol, and phenol. Detailed information describing the manufacturing processes and associated emissions can be found in the Basis and Purpose Document.

Over 56 companies at 99 facilities produce amino/phenolic products. An estimated 40 facilities are considered to be major sources according to the CAA criterion of having the potential to emit 10 tons per year of any HAP or 25 tons per year of combined HAP, based on 1992 emissions data. The proposed rule would apply to all major sources that manufacture amino/phenolic resins. Area sources would not be subject to the proposed rule.

II. Background

A. Pollutants

The 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'' [section 101(b)(1) of the Act]. The proposed rule protects air quality and promotes the public health by reducing emissions of some of the HAP listed in section 112(b)(1) of the Act.

The HAP listed in section 112(b)(1) of the Act emitted by the amino/phenolic resin facilities covered by this proposed rule include formaldehyde, methanol, phenol, xylene, and toluene. Exposure to these compounds has been demonstrated to cause adverse health effects. The adverse health effects associated with the exposure to these specific HAP are discussed briefly in the following paragraphs. In general, these findings have only been shown with concentrations higher than those in the ambient air.

Formaldehyde, one of the HAP associated with this source category, has been classified as a probable human carcinogen of medium carcinogenic hazard based on sufficient animal and limited human evidence. In addition, short-term and long-term exposure to significant levels of formaldehyde may cause irritation of the eye, nose, throat, and, at higher levels, the respiratory tract in humans. Long-term exposures of animals have also resulted in damage to respiratory tract tissues. Although little information is available on developmental effects to humans, animal tests do not indicate effects on fetal development.

Short-term inhalation of large amounts of methanol by humans may cause headache, gastric disturbances, and visual disturbances leading to blindness. Effects on vision, gastrointestinal system and the nervous system have been reported in humans following significant long-term exposures. While no information is available on the reproductive or developmental effects of methanol in humans, birth defects have been observed in the offspring of rats exposed by inhalation to very high levels of methanol during pregnancy. Although no information is available on the carcinogenic effects of methanol in humans or animals, several tests of methanol's ability to damage genetic material have been negative. Because of a lack of information for humans and inadequate animal evidence, EPA does not consider methanol to be classifiable as a human carcinogen.

Short-term inhalation of high levels of phenol in air by humans may cause irritation of lungs, muscle tremors, loss of coordination, paralysis, and with several weeks of high exposure, severe heart, kidney, liver and lung damage. Chronic inhalation exposure to phenol in humans has been associated with liver injury, and muscle pain and weakness. Effects on fetal development have been observed in animals ingesting phenol during pregnancy. Studies in mice have reported that phenol applied to the skin causes skin cancer and, its application coincident with certain cancer-causing chemicals, increases their carcinogenic potency. Because of a lack of information for humans and inadequate animal evidence, EPA does not consider phenol to be classifiable as a human carcinogen.

Short-term inhalation of high levels of mixed xylenes in humans may cause irritation of the nose and throat, nausea, vomiting, gastric irritation, mild transient eye irritation, and neurological effects. Long-term inhalation of high levels of xylenes in humans may result in nervous system effects such as headaches, dizziness, fatigue, tremors, and incoordination. Other reported effects noted include labored breathing, heart palpitation, severe chest pain, abnormal heart functioning, and possible effects on the blood and kidneys. Developmental effects have been reported from xylene exposure via inhalation in animals. Because of a lack of information for humans and inadequate animal evidence, EPA does not consider xylenes to be classifiable as a human carcinogen.

Short-term inhalation of relatively high concentrations of toluene by humans may cause nervous system effects such as fatigue, sleepiness, headaches, and nausea, as well as, irregular heartbeat. Repeated exposure to high concentrations may cause additional nervous system effects, including incoordination, tremors, decreased brain size, involuntary eye movements, and may impair speech, hearing, and vision. Long-term exposure of toluene in humans has also been reported to irritate the skin, eyes, and respiratory tract, and to cause dizziness, headaches, and difficulty with sleep. Children whose mothers were exposed to high levels of toluene before birth may suffer nervous system dysfunction, attention deficits, and minor face and limb defects. Inhalation of toluene by pregnant women may also increase the risk of spontaneous abortion. Because of a lack of information for humans and inadequate animal evidence, EPA does not consider toluene to be classifiable as a human carcinogen.

The EPA does not have the type of current detailed data on each of the amino/phenolic resin facilities covered by the proposed rule, and the people living around the facilities, that would be necessary to conduct an analysis to determine the actual population exposures to the organic HAP emitted from these facilities and potential for resultant health effects. Therefore, the EPA does not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the promulgated standard will substantially reduce emissions and exposures to the level achievable with maximum achievable control technology.

B. Development of the Standard

The alternatives considered in the development of the proposed rule, including those alternatives selected as standards for new and existing sources, are based on process and emissions data received from the existing facilities known by the EPA to be in operation.

Regulatory alternatives more stringent than the MACT floor were selected when they were judged to be achievable ''taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements'' [Section 112(d)(2) of the Act].

The proposed rule gives existing facilities 3 years from the effective date of the final rule to comply. This is the maximum amount allowed by Section 112(i)(3)(A) of the Act. Based on the number of existing facilities affected by the proposed rule, the EPA believes that required retrofits or other actions can be achieved in the timeframe allotted. New facilities will be required to comply with the rule upon start-up. The EPA sees no reason why new facilities would not be able to comply with the requirements of the rule upon start-up.

Included in the proposed rule are methods for determining initial compliance as well as monitoring, recordkeeping, and reporting requirements. All of these components are necessary to ensure that affected sources will comply with the standards both initially and over time. However, the EPA has made every effort to simplify the requirements in the rule.

The proposed rule is modeled after the Hazardous Organic NESHAP (HON) (40 CFR part 63, subparts F, G, and H) and the Polymers & Resins IV NESHAP. Because the proposed rule relies on the Polymers & Resins IV NESHAP for some regulatory language and the Polymers &

Resins IV NESHAP is currently under litigation with changes to the regulatory text expected to be part of the litigation outcome, corresponding changes may be made to this proposal at the appropriate time. In some instances, the proposed rule refers to the HON. In doing so, the proposed rule has benefited from the extensive public debate and participation experienced in the HON rulemaking. The EPA has also attempted to maintain consistency with existing regulations by either incorporating text from existing or forthcoming regulations or referencing the applicable sections, depending on which method would be least confusing for a given situation.

Representatives from other interested EPA offices and programs, including Regional offices, as well as state environmental agency personnel, participated in the regulatory development. These representatives were involved in the regulatory development process, and were given opportunities to review and comment on the proposed rule before proposal and promulgation. Therefore, the EPA believes that the implication to other EPA offices and programs and to state agencies has been adequately considered during the development of the proposed rule. In addition, the EPA has met with some members of industry concerning the proposed rule. Finally, industry, regulatory authorities, and environmental groups will have the opportunity to comment on the proposed rule and provide additional information during the public comment period following proposal.

The proposed rule will result in an organic HAP emission reduction of 356 Mg/yr for existing facilities. No emission reductions have been estimated for new facilities because the EPA does not anticipate that any new facilities will be built over the next 5 years. The emission reductions achieved by these standards will help to achieve the primary goal of the Clean Air Act, which is to ''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.''

III. Authority for National Emission Standards for Hazardous Air Pollutants (NESHAP) Decision Process

A. Source of Authority for NESHAP Development

Section 112 of the Act gives the EPA the authority to establish national standards to reduce air emissions from sources that emit one or more HAP. Section 112(b) contains a list of HAP to be regulated by NESHAP. Section 112(c) directs the EPA to use this pollutant list to develop and publish a list of source categories for which NESHAP will be developed. The EPA must list all known source categories and subcategories of ''major sources'' (defined below) that emit one or more of the listed HAP. A major source is defined in section 112(a) as 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 in the aggregate, considering controls, 10 tons/yr or more of any one HAP or 25 tons/yr or more of any combination of HAP. This list of source categories was published in the **Federal Register** on July 16, 1992 (57 FR 31576) and includes amino and phenolic resins.

B. Criteria for Development of NESHAP

The NESHAP are to be developed to control HAP emissions from both new and existing sources according to the statutory directives set out in section 112(d) of the Act. The statute requires the standards to reflect the maximum degree of reduction in emissions of HAP that is achievable for new or existing sources. This control level is referred to as MACT. Consideration of control levels more stringent than the MACT floor (described below) must reflect consideration of the cost of achieving the emission reduction, any non-air quality, health, and environmental impacts, and energy requirements.

The MACT floor is the least stringent level allowed for MACT standards. For new sources, the standards for a source category or subcategory ''shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator'' [section 112(d)(3) of the Act]. Existing source standards shall be no less stringent than the average emission limitation achieved by the best performing 12 percent of the existing sources for categories and subcategories with 30 or more sources or the average emission limitation achieved by the best performing 5 sources for categories or subcategories with fewer than 30 sources [section 112(d)(3) of the Act]. These two minimum levels of control define the MACT floor for new and existing sources.

Two interpretations have been evaluated by the EPA for representing the MACT floor for existing sources. One interpretation is that the MACT floor is represented by the worst performing source of the best performing 12 percent of the sources. The second interpretation is that the MACT floor is represented by the ''average emission limitation achieved'' by the best performing sources, where the ''average'' is based on a measure of central tendency, such as the arithmetic mean, median, or mode. This latter interpretation is referred to as the ''higher floor interpretation.'' In a June 6, 1994 **Federal Register** notice (59 FR 29196), the EPA presented its interpretation of the statutory language concerning the MACT floor for existing sources. Based on a review of the statute, legislative history, and public comments, the EPA believes that the ''higher floor interpretation'' is a better reading of the statutory language. The determination of the MACT floor for existing sources under the proposed rule followed the ''higher floor interpretation.''

IV. Summary of Proposed Standards

A. Source Categories to be Regulated, Definition of Affected Source, and Definition of Amino/Phenolic Resin

The published list of source categories included the amino resins production source category and the phenolic resins production source category. These two products can broadly be classified as formaldehyde-based thermosetting resins. These two source categories are being combined into one source category and are treated as a single source category for the purposes of this rulemaking. The proposed rule would regulate organic HAP emissions from facilities in the amino/phenolic resin source category, provided that a facility is determined to be a major source. The proposed rule would regulate existing and new affected sources. For this proposed rule, an affected source is defined as each group of one or more amino/phenolic resin process units (APPU) that is located at a plant site that is a major source. An APPU is defined as follows:

Amino/Phenolic Resin Process Unit (APPU) means a collection of equipment assembled and connected by hard-piping or ductwork used to process raw materials and to manufacture an amino/phenolic resin as its primary product. This collection of equipment includes process vents from process vessels; equipment identified in § 63.149; storage vessels, as determined in § 63.1400(g); and the equipment that is subject to the equipment leak provisions as specified in § 63.1415. Utilities, lines and equipment not containing process fluids, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not part of the amino/phenolic resin process unit. An amino/phenolic resin process unit consists of more than one unit operation.

In addition to the emission points and/or equipment included in the definition

of APPU, the affected source includes waste management units, maintenance wastewater, heat exchange systems, and equipment used to comply with the proposed rule, including control devices and recovery devices.

As described earlier in this preamble, the source categories of amino resins and phenolic resins have been combined into a single source category. To reflect this administrative action in the proposed rule, there are three definitions: amino/phenolic resin, amino resin, and phenolic resin. These definitions are presented below:

Amino/Phenolic Resin means one or both of the following types of resins:

(1) Amino resin, or

(2) Phenolic resin.

Amino resin means a resin produced through the reaction of formaldehyde, or a formaldehyde containing solution (e.g., aqueous formaldehyde), with compound(s) that contain the amino group; these compounds include melamine, urea, and urea derivatives.

Phenolic resin means a resin that is a condensation product of formaldehyde and phenol, or a formaldehyde substitute and/or a phenol substitute. Substitutes for formaldehyde include acetaldehyde or furfuraldehyde. Substitutes for phenol include other phenolic starting compounds such as cresol, xylenols, p-tert-butylphenol, p-phenylphenol, and nonylphenol.

B. Relationship to Other Rules

Affected sources subject to the proposed rule may also be subject to other existing rules. The relationship between this rule and three other rules is discussed below. See proposed § 63.1401(g)–(i).

Affected sources subject to the proposed rule may have storage vessels subject to the NSPS for Volatile Organic Liquid Storage Vessels (40 CFR part 60, subpart Kb). For storage vessels subject to and complying with the NSPS, the proposed rule requires that such storage vessels remain in compliance with the NSPS because the NSPS level of control (i.e., 95%) is more stringent than the control level for the proposed rule (i.e., 50%). For storage vessels subject to the NSPS but that did not have to apply controls (e.g., the storage vessels stores an organic liquid but the vapor pressure of the stored material is below the applicability criteria), the proposed rule states that after the compliance date for the proposed rule, such storage vessels are only required to comply with the proposed rule and are no longer subject to subpart Kb.

Affected sources subject to the proposed rule may have cooling towers subject to the NESHAP for Industrial Cooling Towers (40 CFR part 63, subpart Q). There is no conflict between the requirements of subpart Q and the proposed rule. Subpart Q prohibits the use of certain chemicals in the cooling tower water, and the proposed rule implements a leak detection and repair program for organic HAP. Therefore, affected sources subject to both rules must comply with both rules.

Affected sources subject to the proposed rule may also be subject to the Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI LDAR) (40 CFR part 60, subpart VV) and/or the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks (HON NESHAP LDAR)(40 CFR part 63, subpart H). After the compliance date for the proposed rule, such affected sources are only required to comply with the proposed rule and are no longer subject to CFR part 60 subpart VV or to CFR part 63 subpart H. The proposed rule directly references the HON provisions contained in subpart H, and therefore is equivalent to the HON. The HON is more stringent than the subpart VV.

Another likely instance of interaction between the proposed rule and other rules is related to storage vessels already covered by the HON; this is likely to occur at amino/phenolic resin facilities that are collocated with formaldehyde plants subject to the HON. In such cases, a methanol storage vessel supplying methanol to the amino/phenolic resin facility is likely to be subject to the HON. The storage vessel assignment procedures in the proposed rule address such situations. If a storage vessel is already subject to another part 63 standard, that storage vessel is considered to be assigned to the process unit subject to the part 63 standard and is not subject to the proposed rule.

C. Pollutants To Be Regulated

Facilities in the amino/phenolic source category emit a variety of organic HAP. Among the most significant emissions of organic HAP are the following: formaldehyde, methanol, phenol, xylene, and toluene. The proposed rule would regulate emissions of these compounds, as well as a variety of other organic HAP that are emitted.

D. Affected Emission Points

Emissions from the following emission points are being covered by the proposed rule: storage vessels, continuous process vents, batch process vents, heat exchange systems, wastewater, and equipment leaks.

E. Format of the Standards

The Hazardous Organic NESHAP (HON) (subparts F, G, H, and I of 40 CFR part 63) is relied on heavily and provides the basis for selection of the proposed formats for the majority of emission points. For those emission points relying on the HON (i.e., storage vessels, continuous process vents, heat exchange systems, wastewater, and equipment leaks), the format of the proposed standards is the same as that found in the HON. The following paragraphs summarize the selected formats.

For storage vessels, the format of the proposed standards is dependent on the method selected to comply with the standards. If tank improvements (e.g., internal or external floating roofs with proper seals and fittings) are selected, the format is a combination of design, equipment, work practice, and operational standards. If a closed vent system and control device are selected, the format is a combination of design and equipment standards, and a percent reduction or outlet concentration. As an alternate standard, the proposed rule allows emissions from storage vessels to be vented to a control device continuously achieving an outlet concentration of 20 ppmv of organic HAP. In this case the format is an outlet concentration.

For continuous process vents, the format of the proposed standards is also dependent on the method selected to comply with the standards. If a control device other than a flare is used, the formats are a percent reduction or an outlet concentration. If a flare is selected, the format is a combination of equipment and operating specifications. Like storage vessels, the proposed rule allows compliance by venting emissions to a control device continuously achieving an outlet concentration of 20 ppmv of organic HAP.

For batch process vents the format depends on the type of batch process vent. For reactor batch process vents, a percent reduction and an emission limit were selected. The standard requires that emissions are reduced by a certain percent (i.e., 93 percent at existing affected sources and 95 percent at new affected sources) over the batch cycle. As an alternative, the standard allows a demonstration that emissions are limited to 0.017 kg of HAP per megagram of product at existing affected sources or 0.01 kg of HAP per megagram of product at new affected sources. For non-reactor batch process vents, the standard requires that emissions for the collection of non-reactor batch process vents within the affected source are

reduced by 68 percent at existing affected sources and by 83 percent at new affected sources. Like continuous process vents, if a flare is selected, the format is a combination of equipment and operating specifications. Like storage vessels and continuous process vents, the proposed rule allows compliance by venting emissions to a control device continuously achieving an outlet concentration of 20 ppmv of organic HAP.

For heat exchange systems, a work practice standard is proposed. This standard requires a leak detection and repair program to detect and repair leaks of organic HAP into cooling tower water.

For wastewater streams requiring control, the proposed standards incorporate several formats: equipment, operational, work practice, and emission standards. The particular format selected depends on which portion of the wastewater stream is involved. For transport and handling equipment, the selected format is a combination of equipment standards and work practices. For the reduction of organic HAP from the wastewater stream itself, several alternative formats are included, including alternative numerical emission limit formats and equipment design and operation standard for a steam stripper. For vapor recovery and destruction devices other than flares, the format is a weight percent reduction. For flares, the format is a combination of equipment and operating specifications.

For equipment leaks, the proposed standards incorporate several formats: equipment, design, base performance levels (e.g., maximum allowable percent leaking valves), work practices, and operational practices. Different formats are necessary for different types of equipment because of the nature of the equipment, available control techniques, and applicability of the measurement method.

F. Summary of the Proposed Standards

Detailed information describing the approach used to determine MACT floors and the consideration of regulatory alternatives is presented in Section V of this preamble.

The proposed standards for new and existing affected sources are summarized in Table 1 and Table 2, respectively. The sections below present the proposed standards by emission point and present the alternative 20 ppmv of organic HAP emission limit.

1. Storage Vessels

The proposed standard for storage vessels at existing affected sources is 50 percent emission reduction for storage vessels meeting the following applicability criteria:

Aqueous formaldehyde: ≥10,000 gallons capacity with vapor pressure ≥0.47 psia

Non-aqueous formaldehyde: ≥10,160 gallons capacity with vapor pressure ≥2.45 psia; and ≥90,000 gallons capacity with vapor pressure ≥0.45 psia.

For storage vessels at new affected sources, the applicability criteria are the same but the control levels are different. For aqueous formaldehyde storage vessels, the control level is 50 percent, and for non-aqueous formaldehyde storage vessels, the control level is 95 percent.

2. Continuous Process Vents

The proposed standard for continuous process vents at new affected sources utilizes the MACT floor level of control and the HON process vent provisions to establish a two-tiered standard. For continuous process vents with total resource effectiveness values (TRE) greater than 1.0 but less than or equal to 1.2, 85 percent emission reduction is required (i.e., MACT floor). For continuous process vents with a TRE value of 1.0 or less, 98 percent emission reduction is required (i.e., HON). For process vents with a TRE value greater than 1.2, controls are not required. TRE values are determined using the TRE equations from the HON for a thermal incinerator with 70 percent heat recovery. As an alternative to the percent reduction, an owner or operator may demonstrate that the selected controls reduce the outlet concentration to 20 ppmv.

The proposed rule does not contain any requirements for the control of continuous process vents at existing affected sources.

TABLE 1.—PROPOSED STANDARDS FOR NEW AFFECTED SOURCES

Emission point	Applicability criteria	Standard
Storage Vessels	For aqueous formaldehyde vessels; vessels with capacities of 10,000 gallons or greater with vapor pressures of 0.47 psia or greater. For non-aqueous formaldehyde vessels; vessels with capacities of 10,160 gallons or greater with vapor pressures of 2.45 psia or greater *and* vessels with capacities of 90,000 gallons and greater with vapor pressures of 0.45 psia and greater.	50 percent control OR alternative standard of venting to a control device continuously achieving a 20 ppmv outlet concentration OR 95 percent control OR alternative standard of venting to a control device continuously achieving a 20 ppmv outlet concentration.
Continuous Process Vents	HON TRE value calculations; two levels of control.	85 percent control for vents with TRE greater than 1.0 but less than or equal to 1.2 and 98 percent control for vents with TRE equal to or less than 10.0 OR alternative standard of venting to a control device continously achieving a 20 ppmv outlet concentration.
Reactor Batch Process Vents	No applicability criteria, all reactor batch process vents are subject to control.	95 percent control over the batch cycle; or 0.01 kilogram of HAP per megagram of product; OR alternative standard of venting to a control device continuously achieving a 20 ppmv outlet concentration.
Non-Reactor Batch Process Vents	Facility-wide emissions from the collection of non-reactor batch process vents greater than or equal to 0.23 Mg.	83 percent control for the collection of non-reactor batch process vents within the affected source; OR alternative standard of venting to a control device continuously achieving a 20 ppmv outlet concentration.
Heat Exchange Systems	No applicability criteria	Monitor for leaks.
Wastewater	HON applicability criteria	HON control level.

TABLE 1.—PROPOSED STANDARDS FOR NEW AFFECTED SOURCES—Continued

Emission point	Applicability criteria	Standard
Equipment Leaks	HON applicability criteria [a]	HON leak detection and repair program.

[a] The HON has an exemption for equipment components in organic HAP service less than 300 hours per year.

TABLE 2.—PROPOSED STANDARDS FOR EXISTING AFFECTED SOURCES

Emission point	Applicability criteria	Standard
Storage Vessels	For aqueous formaldehyde vessels; vessels with capacities of 10,000 gallons or greater with vapor pressures of 0.47 psia or greater. For non-aqueous formaldehyde vessels; vessels with capacities of 10,160 gallons or greater with vapor pressures of 2.45 psia or greater *and* tanks with capacities of 90,000 gallons and greater with vapor pressures of 0.45 psia and greater.	50 percent control OR alternative standard of venting to a control device continuously achieving a 20 ppmv outlet concentration.
Continuous Process Vents	Not applicable	No standard selected.
Reactor Batch Process Vents	No applicability criteria, all reactor batch process vents are subject to control.	93 percent control over the batch cycle; OR 0.017 kilogram of HAP per megagram of product; OR alternative standard of venting to a control device continuously achieving a 20 ppmv outlet concentration.
Non-Reactor Batch Process Vents	Facility-wide emissions from non-reactor batch process vents greater than or equal to 0.23 Mg.	68 percent control for all non-reactor batch process vents within the affected source; OR alternative standard of venting to a control device continuously achieving a 20 ppmv outlet concentration.
Heat Exchange Systems	No applicability criteria	Monitor for leaks.
Wastewater	Not applicable	No standard selected.
Equipment Leaks	HON applicability criteria [a]	HON leak detection and repair program.

[a] The HON has an exemption for equipment components in organic HAP service less than 300 hours per year.

3. Batch Process Vents

Batch process vents are distinguished as reactor batch process vents or non-reactor batch process vents under the proposed standards, and are discussed separately in this section.

Reactor Batch Process Vents. The proposed standards for reactor batch process vents at new affected sources are 95 percent emission reduction with an alternative emission limit of 0.01 kilogram of HAP per megagram of product. The proposed standards for reactor batch process vents at existing affected sources are 93 percent emission reduction with an alternative emission limit of 0.017 kilogram of HAP per megagram of product. Because there are no applicability criteria for reactor batch process vents, all vents require control.

Non-Reactor Batch Process Vents. The proposed standard for non-reactor batch process vents at new affected sources is an overall emissions reduction of 83 percent from all non-reactor batch process vents within the affected source for affected sources with emissions from non-reactor batch process vents greater than or equal to 0.25 tpy. The proposed standard for existing affected sources is an overall emissions reduction of 68 percent for the collection of non-reactor batch process vents within the affected source for affected sources with emissions from the collection of non-reactor batch process vents greater than or equal to 0.23 Mg.

4. Heat Exchange Systems

A monitoring program to detect leaks from the process into the cooling water is the proposed standard for heat exchange systems at both new and existing affected sources. This monitoring program is the same as the HON program (40 CFR part 63, subpart F).

5. Wastewater Streams

The proposed standard for wastewater streams at new affected sources is the HON. No standard is being proposed for existing affected sources.

6. Equipment Leaks

The proposed standard for equipment leaks at new and existing affected sources is based on the HON (40 CFR part 63, subpart H). Aspects of the proposed standards that are not found in the HON are: (1) The option to group valves, (2) longer monitoring frequencies for facilities that demonstrate lower leak frequencies for valves and connectors, (3) delay of repair of equipment for which leaks have been detected is also allowed if the owner or operator determines that repair personnel would be exposed to an immediate danger if attempting to repair without a process shutdown, (4) closed-vent systems designed to operate at a pressure below atmospheric pressure may be used to comply, and (5) an actual annual production cutoff of 800 megagrams per year (i.e., affected sources that maintain actual annual production of amino/phenolic resins is equal to or less than 800 megagrams per year are exempt from the equipment leaks provisions).

7. Alternative Standard

As an alternative to the standards presented above for storage vessels, continuous process vents, reactor batch process vents, and non-reactor batch process vents, an owner or operator may choose to meet an alternative emission limit. Under the alternative emission limit, vent streams requiring control may be vented to a control device continuously achieving an outlet concentration of 20 ppmv of organic HAP. This alternative emission limit differs from the 20 ppmv alternatives that accompany the percent reduction requirements for storage vessels and continuous process vents in that a performance test specific to an

individual emission point is not required. Instead, an initial demonstration that the control device continuously achieves an outlet concentration of 20 ppmv of organic HAP is required. Continuous compliance is demonstrated through continuous monitoring of the control device outlet concentration.

G. Compliance and Performance Test Provisions

Compliance and performance test provisions, to include group determination procedures, contained in the proposed rule are based on the HON, but there are several important exceptions. First, test methods are different because of the specific HAP emitted by amino/phenolic resin facilities. Second, the specific provisions for batch process vents are based on the provisions from the promulgated Group IV Polymers and Resins NESHAP (40 CFR part 63 Subpart JJJ).

Because of the specific HAP emitted by amino/phenolic resin facilities, the test methods specified in the HON are not completely adequate for the proposed rule. Specifically, formaldehyde is not adequately detected using either Method 18 or Method 25A of appendix A, 40 CFR part 60. Therefore, the following test methods have been added specifically for formaldehyde: Methods 316 and 320. Method 316 is a manual method that was proposed with the Mineral Wool NESHAP (62 FR 25370) and Method 320 is an FTIR-based method that was proposed with the Portland Cement NESHAP (63 FR 14181). Further, Method 18 does not always adequately detect methanol, and Method 308 has been included as an option for testing for methanol.

Under the proposed rule, owners or operators of control devices receiving 9.1 Mg/yr (10 tpy) or less of uncontrolled HAP emissions are not required to conduct a performance test and instead may perform a design evaluation to demonstrate compliance with the proposed rule.

Each type of emission point is discussed briefly in the paragraphs below.

1. Storage Vessels

The proposed standards for storage vessels refer directly to the HON storage vessel provisions. The group status of storage vessels is determined based on the storage vessel capacity and vapor pressure of the stored material. The proposed rule includes a table specifying storage vessels that are Group 1 and therefore require control. There is no requirement for an emissions test or engineering assessment to determine the group status of a storage vessel.

Compliance demonstration provisions include periodic visual inspections of vessels, roof seals, and fittings, as well as internal inspections.

2. Continuous Process Vents

The proposed standards for continuous process vents refer directly to the HON process vent provisions. Under the referenced provisions, an owner or operator is required to either calculate a TRE index value to determine whether each continuous process vent is a Group 1 or Group 2 vent, or the owner or operator can elect to comply with the continuous process vent control requirements without calculating the TRE index. The TRE index value is determined after the last recovery device in the process or prior to venting to the atmosphere. The TRE calculation involves an emissions test or engineering assessment and use of the TRE equations in the proposed rule.

Performance test provisions are included for Group 1 continuous process vents to verify that the control device achieves the required performance.

3. Batch Process Vents

There are no group determination procedures for reactor batch process vents because all reactor batch process vents are subject to control under the proposed rule. For non-reactor batch process vents, control is required for affected sources with 0.25 tons per year or more of uncontrolled emissions from the collection of non-reactor batch process vents within the affected source. Procedures for determining uncontrolled emissions from non-reactor batch process vents are included in the proposed rule. For those affected sources required to control non-reactor batch process vents, an owner or operator can choose to not control some non-reactor batch process vents, as long as emissions from the collection of non-reactor batch process vents are reduced by the specified percentage. Performance test provisions are included to verify the efficiency achieved by the control device.

Compliance is demonstrated by showing that for the batch cycle, if an individual reactor batch process vent is being controlled, or on an overall basis, if non-reactor batch process vents are being controlled, the specified percent reduction is achieved. To demonstrate this, an emissions profile must be developed that identifies each batch emission episode included in the batch process vent and characterizes emissions from each batch emission episode on a mass emitted per unit time basis. Using this emissions profile, the owner or operator must show that the periods of under-control and over-control of emissions balance and the batch cycle percent reduction or the overall percent reduction is achieved. The proposed rule contains procedures for estimating emissions from individual batch emission episodes, estimating control device efficiency, and for demonstrating that the required percent reduction is achieved.

Procedures for demonstrating compliance with the alternative kilogram of HAP per megagram of product emission limit are also included in the proposed rule.

4. Heat Exchange Systems

There are no performance test requirements for heat exchange systems. Compliance is demonstrated through the monitoring of cooling water to detect leaks in heat exchange systems. If a leak is detected, the heat exchange system must be repaired.

5. Wastewater

The proposed standards for wastewater refer directly to the HON wastewater provisions. For demonstrating compliance with the various requirements (i.e., group determinations, demonstrations of control device performance, or demonstrations of treatment processes), the proposed rule allows the owners or operators to either conduct performance tests or to document compliance using engineering calculations.

6. Equipment Leaks

The proposed standards for equipment leaks refer directly to the HON equipment leak provisions. The proposed rule retains the use of Method 21 to detect leaks. Method 21 requires a portable organic vapor analyzer to monitor for leaks from equipment in use. A ''leak'' is a concentration specified in the regulation for the type of equipment being monitored and is based on the instrument response to methane (the calibration gas) in air. The observed screening value may require adjustment for response factor relative to methane if the weighted response factor of the stream exceeds a specified multiplier. The proposed rule requires the use of Method 18 to determine the organic content of a process stream.

H. Monitoring Requirements

The proposed rule requires monitoring of HAP emissions and control and recovery device operating parameters. HAP emissions are

monitored directly as part of complying with the kilogram of HAP emissions per megagram of product limits for reactor batch process vents or as part of the 20 ppmv alternative standard. Control device operating parameters are monitored as part of complying with the percent reduction requirements of the proposed rule.

Continuous parameter monitoring is required for control devices. Exceptions to this are that control devices controlling less than 1 ton per year of uncontrolled emissions are exempt from continuous monitoring but the owner or operator must conduct a daily or per batch demonstration that the control device is operating properly. Second, owners or operators of control devices serving storage vessels are not required to conduct parameter monitoring unless the owner or operator specifies continuous monitoring in the monitoring plan required by the referenced HON provisions. However, if a control device is used, the owners or operator must identify the appropriate monitoring procedures to be followed for compliance demonstration purposes. Further, if a control device serves both a storage vessel(s) and another emission point subject to the proposed rule, the control device is subject to continuous parameter monitoring if the other emission point is subject to continuous parameter monitoring.

Parameters must be monitored when emissions are vented to the control device. The proposed rule directly references the HON monitoring requirements for continuous process vents, storage vessels, and wastewater. However, there are general monitoring requirements specified in the proposed rule (e.g., establishment of parameter monitoring levels) that apply to all emission points.

The proposed rule identifies parameters to be monitored for most control devices expected to be used for emission points regulated by the proposed rule. Parameter monitoring levels are established based on design evaluation for control devices with uncontrolled emissions less than 10 tons per year. For all other control devices required to conduct continuous parameter monitoring, parameter monitoring levels are established based on a performance test, but can be supplemented by manufacturer's recommendations and/or an engineering assessment. If an owner or operator chooses to supplement results of the performance test using manufacturer's recommendations and/or engineering assessment, the established parameter monitoring level is subject to review and approval by the Administrator.

Parameter monitoring averages are determined based on all recorded values, except for values recorded under certain conditions, for example under conditions of start-up, shutdown, or malfunction. Parameter averages must be daily averages for control devices serving continuous process vents, waste management units, storage vessels (if required), or equipment leaks. Parameter averages may be either batch cycle daily averages or block averages for batch process vents. Parameter averages based on batch cycle daily averages cover a 24-hour period, based on the defined operating day, and may or may not cover multiple batch cycles for the batch process vent. A batch cycle daily average may also cover partial batch cycles, therefore the proposed rule requires that the information required to calculate parameter monitoring compliance for partial batch cycles be provided. Parameter averages based on block averages cover the complete batch cycle, regardless of the length of time for the batch cycle.

There are two types of violations under the proposed rule; violations of the operating limit and violations of the emission limit. Violations of the operating limit occur when not enough operating parameter monitoring data are available to constitute a valid day's worth of data or when the average is above the maximum or below the minimum established value. The proposed rule requires that 75 percent of the possible data points are recorded and are valid during a day. Violations of the emission limit occur when a control device fails to meet the 20 ppmv alternative standard allowed for continuous process vents, batch process vents, and storage vessels, or when a control device fails to meet the kilogram of HAP per megagram of product emission limits for batch process vents. There is one situation where an exceedance of an operating parameter is considered a violation of the emission limit. When the exit gas temperature monitoring data for a condenser shows an exceedance, it is considered a violation of the emission limit.

Provisions for alternate monitoring parameters are included in the proposed rule. An owner or operator must apply for approval to monitor an alternate parameter.

I. Recordkeeping and Reporting Requirements

The general recordkeeping and reporting requirements of this subpart are very similar to those found in the HON. The proposed rule also relies on the provisions of subpart A of 40 CFR part 63. A table included in the proposed rule designates which sections of subpart A apply to the proposed rule. Specific recordkeeping and reporting requirements for each type of emission point are also included in the proposed rule. The proposed rule references the recordkeeping and reporting requirements for continuous process vents, storage vessels, wastewater, and equipment leaks.

The proposed rule requires sources to keep records and submit reports of information necessary to document compliance. Records must be kept for 5 years. The following reports must be submitted to the Administrator as appropriate: (1) Precompliance Report, (2) Notification of Compliance Status, (3) Periodic Reports, and (4) Other Reports. The requirements for each of the four reports are summarized below. In addition, sources complying with the equipment leak requirements contained in subpart H must follow the recordkeeping and reporting requirements of subpart H.

1. Precompliance Report

The Precompliance Report would be due no later than 12 months prior to the compliance date. The Precompliance Report includes the following, as appropriate: compliance extension requests; requests to monitor alternative parameters; intent to use alternative controls; intent to use the alternative continuous monitoring and recordkeeping allowed by the rule; demonstration that the emissions estimation equations for batch process vents are not appropriate; and information related to establishing parameter monitoring levels, if required.

2. Notification of Compliance Status

The Notification of Compliance Status would be due 150 days after the affected source's compliance date. It includes the information necessary to demonstrate that compliance has been achieved for emission points required to apply controls by the proposed rule. Such information includes, but is not limited to, the results of any performance tests; one complete test report for each test method used for a particular kind of emission point; TRE determinations for continuous process vents; design analyses for storage vessels and wastewater emission points and for certain batch process vents; and monitored parameter levels for each emission point and supporting data for the designated level.

3. Periodic Reports

Generally, Periodic Reports would be submitted semiannually. However, there is an exception. The Administrator may

request that the owner or operator submit quarterly reports for certain emission points that the Administrator identifies. After 1 year, semiannual reporting can be resumed, unless the Administrator requests continuation of quarterly reports.

Periodic Reports would include information required to be reported under the recordkeeping and reporting provisions for each emission point. For continuously monitored parameters, the data on those periods when the parameters are above the maximum or below the minimum established levels are included in the reports. Periodic Reports would also include results of any performance tests conducted during the reporting period and instances when required inspections revealed problems.

4. Other Reports

Other reports required under the proposed rule include: the notification of inspections required for storage vessels; reports of changes to the primary product for an APPU or process unit; reports of addition of one or more APPUs, addition of one or more emission points, or change in the group status of emission points.

V. Rationale for Proposed Standards

A. Selection of Hazardous Air Pollutants for Control

Of the 188 compounds listed, only a limited number are emitted from amino/phenolic resin facilities. Because the EPA judged that it was unnecessary to require facilities to test for all 188 HAP, a list of the specific HAP to be regulated in the proposed rule was developed. However, all 188 listed HAP must be considered in any major source determination under the General Provisions to 40 CFR part 63.

To select which HAP are to be regulated under the proposed NESHAP, the EPA evaluated the emissions data provided by the industry in the 1992 Information Collection Request. Based on this evaluation, the EPA is proposing that the following specific HAP be regulated under the proposed NESHAP: formaldehyde, methanol, phenol, xylenes (isomers and mixtures), toluene, o-Cresol, m-Cresol, p-Cresol, ethylene glycol, styrene, methyl ethyl ketone, ethyl benzene, naphthalene, cresol/cresylic acid (isomers and mixtures), glycol ethers, diethanolamine, aniline, methyl isobutyl ketone, acrylamide, biphenyl, and dimethyl formamide.

B. Selection of Emission Points

Emissions from the production of amino/phenolic resins were identified as occurring from storage vessels, continuous process vents, batch process vents, heat exchange systems, wastewater, and equipment leaks. Batch process vents are distinguished as being reactor batch process vents or non-reactor batch process vents. The EPA is proposing standards for all of these types of emission points in the proposed rule.

Non-reactor batch process vents include, but are not limited to, filter presses, batch drying operations, weigh tanks, holding tanks, distillation systems, and flaking belt operations. Many facilities did not report the presence of non-reactor batch process vents, but the EPA judged that all facilities had some number of these types of batch process vents. Because of the discrepancy within the gathered data, the EPA judged that including non-reactor batch process vents with reactor batch process vents in the development of the MACT floor could result in a level of control for non-reactor batch process vents that was not representative of the controls present at existing sources. A primary factor in making this judgment was the fact that only three of the best performing 5 facilities, in terms of reactor batch process vent control, reported non-reactor batch process vents.

In addition, because heat exchange systems have been identified as a potential source of emissions, the EPA judges that proposing a standard to cover this emission point is warranted. However, the EPA is not aware if any heat exchange systems exist in the amino/phenolic resin industry and would like to solicit comments from interested persons on this subject. The request for comment on heat exchange systems is discussed in Section VI of this preamble.

C. Determination of the Proposed Standards

The sections below present the rationale for determining MACT floors by emission point, regulatory alternatives beyond the MACT floor, alternative standards (Section C.7) and action taken to address predicted adverse economic impacts to small businesses (Section C.8). Heat exchange systems are not discussed in this section because no MACT floor determination was made. A more detailed explanation of the development of the proposed standards is set forth in the Basis and Purpose Document (BPD), which supplements this preamble and is available from the docket.

1. Storage Vessels

The MACT floor for existing sources for categories with 30 or more sources is based on ''the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emission information).'' (CAA section 112(d)(3)) Here, the ''source'' is the amino/phenolic resin facility. Because EPA has emissions information for 40 amino/phenolic resins facilities that are major sources, the best performing 12 percent of existing sources is represented by the best performing 5 facilities. The best performing 5 facilities were selected based on the same approach as used in developing the MACT floor for storage vessels under the HON. Applicability criteria and control levels for the MACT floor were also developed using the HON approach.

For existing sources, the HON approach determines whether or not there is control at the MACT floor by considering the overall control status of each facility independently, judging each facility as controlled or uncontrolled based on a predominance of controlled or uncontrolled storage vessels. For example, if 8 out of 10 storage vessels are controlled at a given facility, the overall control status of that facility is ''controlled.'' Next, the HON approach looks at a predominance of the best performing 5 facilities. For example, if at least 3 out of the 5 facilities are considered ''controlled,'' a MACT floor of control is considered to exist. Table 3 presents a summary of the number of uncontrolled and controlled storage vessels at each of the best performing 5 facilities and presents the HON approach finding that the existing source MACT floor is ''controlled.''

TABLE 3.—STORAGE VESSELS AT THE BEST PERFORMING 5 FACILITIES

No. tanks	Company	Location	Chemical	Vapor pressure (psia)	Size (gal)	Control	Control device efficiency percent	Emissions	
								Uncont. Mg/yr	Cont. Mg/yr
5 tks	Borden	Fayetteville, NC	aqueous formaldehyde	0.47	55,000	Scrubber	50	912	456
15 tks	Borden	Fayetteville, NC	aqueous formaldehyde	0.47	16,000	Scrubber	50	812	406

TABLE 3.—STORAGE VESSELS AT THE BEST PERFORMING 5 FACILITIES—Continued

No. tanks	Company	Location	Chemical	Vapor pressure (psia)	Size (gal)	Control	Control device efficiency percent	Emissions	
								Uncont. Mg/yr	Cont. Mg/yr
2 tks	Borden	Fayetteville, NC	phenol	<0.01	25,000	None	0	260	260
1 tk	Borden	Fayetteville, NC	methanol distillate	1.63	30,000	None	0	73	73
1 tk	Borden	Fayetteville, NC	methanol distillate	1.63	20,000	None	0	49	49
1 tk	Borden	Fayetteville, NC	aqueous formaldehyde	0.47	10,000	Scrubber	50	33	16
8 tks	Borden	Louisville, KY	aqueous formaldehyde	0.47	20,000	Scrubber	50	704	352
2 tks	Borden	Louisville, KY	distillate	1.63	20,300	None	0	695	695
3 tks	Borden	Louisville, KY	phenol	<0.01	20,300	None	0	500	500
1 tk	Borden	Louisville, KY	ethylene glycol	<0.01	20,000	None	0	1	1
1 tk	Borden	Louisville, KY	toluene	0.71	4,500	None	0	1	1
1 tk	Cytec	Wallingford, CT	methanol distillate	1.63	20,000	None	0	2981	2981
1 tk	Cytec	Wallingford, CT	methanol distillate	1.63	11,600	None	0	2865	2865
1 tk	Cytec	Wallingford, CT	methanol distillate	1.63	15,000	None	0	2865	2865
1 tk	Cytec	Wallingford, CT	methanol	2.45	50,000	Scrubber	95	946	47
1 tk	Cytec	Wallingford, CT	methanol	2.45	50,000	Scrubber	95	946	47
1 tk	Cytec	Wallingford, CT	methanol wash	2.45	10,159	Scrubber	95	625	31
1 tk	Cytec	Wallingford, CT	recovered methanol	2.45	10,000	None	0	600	600
1 tk	Cytec	Wallingford, CT	methyl formcel	0.45	90,000	Scrubber	95	452	23
1 tk	Cytec	Wallingford, CT	methanol wash	2.45	10,159	Scrubber	95	222	11
1 tk	Cytec	Wallingford, CT	xylene	<1.5	15,000	None	0	70	70
1 tk	Cytec	Wallingford, CT	aqueous formaldehyde	0.15	90,000	Scrubber	95	32	2
1 tk	Simpson Timber.	Portland, OR	aqueous formaldehyde	0.47	47,972	Scrubber	85	1420	213
1 tk	Simpson Timber.	Portland, OR	methanol	1.93	80,926	None	0	280	280
1 tk	Simpson Timber.	Portland, OR	phenol	<0.01	51,702	None	0	160	160

NOTE: The capacity values (size in gallons) apply separately to each storage vessel, while the uncontrolled and controlled emissions (lb/yr) apply collectively to the group of storage vessels for that specific facility.

The HON approach expresses applicability criteria in terms of vapor pressure and storage vessel capacity cutoffs. Once a finding of ''controlled'' is made for the MACT floor, vapor pressure and capacity cutoffs are developed that include those storage vessels at the baseline that are controlled and exclude storage vessels that are uncontrolled at the baseline. More than one set of vapor pressure and storage vessel capacity cutoffs may be developed, as was the case for the existing source MACT floor. The following applicability criteria were developed:

aqueous formaldehyde: ≥10,000 gallons capacity with vapor pressure ≥0.47 psia

Non-aqueous formaldehyde: ≥10,160 gallons capacity with vapor pressure ≥2.45 psia; and ≥90,000 gallons capacity with vapor pressure ≥0.45 psia.

Two sets of criteria were developed because the storage vessels in the best performing 5 facility data set naturally lend themselves to division based on the material stored (i.e., aqueous formaldehyde or other materials), and because the HON approach requires that storage vessels that are not controlled at the baseline be excluded by the applicability criteria.

The MACT floor is established based on the control levels at the baseline. Of the best performing 5 facilities, there are a total of 36 controlled storage vessels of which 6 are controlled to 95 percent, 1 is controlled to 85 percent, and 29 are controlled to 50 percent. The median and mode, which is 50 percent, was chosen to represent the MACT floor control level.

The MACT floor for new sources is set by the best controlled source. Using the HON approach for new sources, the best controlled source (here, the best controlled amino/phenolic resin facility) is identified based on the absolute number of storage vessels controlled.

The Borden, Fayetteville facility is the best controlled source based on absolute number of storage vessels controlled. However, the only controlled storage vessels are aqueous formaldehyde storage vessels and this leaves storage of other raw materials (i.e., non-aqueous formaldehyde) unaddressed. The Cytec, Wallingford facility is the next best controlled facility based on the absolute number of storage vessels controlled and includes other raw materials among the controlled vessels. The Borden, Fayetteville facility is the best controlled facility for aqueous formaldehyde storage vessels, and the Cytec, Wallingford facility is the best controlled facility for non-aqueous formaldehyde storage vessels. Therefore, separate floors were set for aqueous formaldehyde and non-aqueous formaldehyde storage vessels.

Like the process for existing sources, vapor pressure and capacity cutoffs were developed that include those storage vessels that are controlled at baseline and exclude storage vessels that are uncontrolled at baseline. The storage vessels at the Borden, Fayetteville facility were used to develop the aqueous formaldehyde criteria, and the storage vessels at the Cytec, Wallingford facility were used to develop the non-aqueous formaldehyde criteria. The following storage vessel applicability criteria were developed:

Aqueous formaldehyde: ≥10,000 gallons capacity with vapor pressure ≥0.47 psia.

Non-aqueous formaldehyde ≥10,160 gallons capacity with vapor pressure ≥2.45 psia; and ≥90,000 gallons capacity with vapor pressure ≥0.45 psia.

The applicability criteria for existing and new sources are coincidentally the same because of the large number of storage vessels at the Borden, Fayetteville facility.

The control level for the new source MACT floor is established based on the control levels at the best controlled facility. For aqueous formaldehyde storage vessels, the best controlled facility is the Borden, Fayetteville facility. For non-aqueous formaldehyde storage vessels, the best controlled facility is the Cytec, Wallingford facility.

The aqueous formaldehyde storage vessels at the Borden, Fayetteville facility are all controlled to 50 percent. Therefore, the MACT floor for aqueous

formaldehyde storage vessels is 50 percent. At the Cytec, Wallingford facility some non-aqueous formaldehyde storage vessels are controlled and some are not controlled. The applicability criteria presented above separate the controlled tanks from the uncontrolled tanks. All of the controlled tanks are controlled to 95 percent. Therefore, the MACT floor for non-aqueous formaldehyde storage vessels is 95 percent.

2. Continuous Process Vents

The available data indicate that only three facilities had continuous process vents and only one of the three facilities had applied controls. The only continuous process vents identified by the available data were dryer vents.

The MACT floor for existing sources is set by the average performance achieved by the best performing 12 percent of existing sources. Here, the amino/phenolic resin facility is the ''source.'' Because there are 40 amino/phenolic resin facilities in the source category for which EPA has emissions information, the best performing 12 percent of existing affected sources is represented by the best performing 5 facilities. Because only one facility was identified as controlling its continuous process vents, the MACT floor for existing sources is no control.

The MACT floor for new sources is set by the best controlled source. The best controlled amino/phenolic resin facility has a scrubber with an 85 percent control efficiency. Therefore, the MACT floor level of control is 85 percent for continuous process vents that meet the applicability criterion. The applicability criterion chosen to represent the specific continuous process vents that are controlled at the MACT floor is the HON total resource effectiveness (TRE) equation for a thermal incinerator with 70 percent heat recovery. This applicability criterion was selected because the HON process vent provisions were relied upon for part of the standard and using the same applicability criterion to define the MACT floor provides a consistent approach for the rule.

The expression of applicability criteria is limited to the TRE equation for a thermal incinerator with 70 percent heat recovery because there was only one set of vent stream data, which did not allow the EPA to evaluate a range of stream conditions that were controlled versus those that were not controlled. This TRE value of 1.2 was calculated using the vent stream data for the continuous process vents setting the 85 percent MACT floor.

3. Batch Process Vents

As indicated in Section IV, batch process vents were distinguished as reactor batch process vents or non-reactor batch process vents for the purposes of the proposed rule. Reactor and non-reactor batch process vents are discussed separately in this section.

Reactor Batch Process Vents

The MACT floor for existing sources is set by the average performance achieved by the best performing 12 percent of existing sources. Here, the ''source'' is the amino/phenolic resin facility. Because there are 40 amino/phenolic resin facilities in the source category for which EPA has emissions information, the best performing 12 percent of existing sources is represented by the best performing 5 facilities. Each of the best performing 5 facilities had applied secondary controls to each of their reactor batch process vents; this fact necessitates that the proposed rule require control of all reactor batch process vents with no applicability criteria. Table 4 presents the data for the best performing 5 facilities in terms of reactor batch process vent controls.

TABLE 4.—BEST PERFORMING FACILITIES FOR REACTOR BATCH PROCESS VENTS BASED ON APPLIED SECONDARY CONTROLS [a]

Facility	Type of resin	Production of methylated resins (N or percent)	Collocated with formaldehyde plant (Y/N)	Secondary controls	Emission factor (lb HAP/1000 lb production)
Ranbar	P	N	N	thermal incinerator (95 percent)	0.84
Georgia Pacific, Taylorsville, MS	A/P	N	Y	catalytic incinerator (95 percent)	0.01
Georgia Pacific, Port Wentworth, GA	A/P	5–10%	N	caustic treatment (93 percent)	0.017
Borden, Louisville, Ky	P	N	Y	scrubber (90 percent)	CBI [b]
Solutia, Addyston, OH	A	100%	N	scrubber (85 percent)	CBI [b]

[a] The data on this table is restricted to the 17 facilities that were contacted during the recent data gathering effort.
[b] CBI means Confidential Business Information.

The data set used for determining the MACT floor was limited to the 17 facilities for which the 1992 ICR responses indicated that secondary controls had been applied to reactor batch process vents. These facilities were contacted via telephone during 1997 and were asked a series of questions in order to clarify the data that were reported in the 1992 ICR responses. Some of the topics that were covered during the teleconferences included the presence and purpose of a primary condenser, emissions before and after the primary condenser, efficiency of the primary condenser and secondary control devices, whether the facility was collocated with a formaldehyde plant, and whether the facility produced methylated resins.

In considering the best performing 5 facilities based on applied secondary controls, the data were evaluated to determine if the collocation with formaldehyde plants or the production of methylated resins influenced the application of secondary controls, specifically the use of combustion devices. No patterns emerged. One combustion device is at a phenolic producer (Ranbar) that does not produce any methylated resins and is not collocated with a formaldehyde plant. The other combustion device is at an amino/phenolic producer (Georgia Pacific, Taylorsville) that does not produce any methylated resins and is collocated with a formaldehyde plant.

In addition, the data were evaluated for patterns of applied secondary controls versus the production capacity of facilities. Again, no patterns emerged. One combustion device is located at a 816 Mg/yr producer (Ranbar), and the other combustion device is located at a 69,853 Mg/yr producer (Georgia Pacific, Taylorsville). These production capacities are typical small and large facilities, respectively.

In conclusion, because of the good distribution of methylators and non-methylators, facilities collocated with formaldehyde plants and those not, and amino only, phenolic only, and amino/

phenolic producers within the best performing 5 facilities, the best performing 5 facilities were considered representative of the industry.

The EPA considered two options for the MACT floor. The options considered included selecting the percent reduction for the median facility or averaging the percent reduction values for the best performing 5 facilities, and then determining the alternate kilogram of HAP per megagram of product emission limit in a similar manner. The option selected uses the median facility for establishing the percent reduction and the alternate emission limit. The Georgia Pacific, Port Wentworth facility represents the median facility of the best performing 5. Using the percent reduction value and the emission factor for this facility, the MACT floor was selected as 93 percent emission reduction with an alternative emission limit of 0.017 kilogram of HAP per megagram of product.

The option of averaging the percent reductions for the best performing 5 facilities was not selected because providing the corresponding alternate emissions limit would require averaging the emissions factors for the best performing 5 facilities. Because the emission factor for Ranbar (0.84 kilogram of HAP per megagram of product) is much higher than would be expected for a facility with a combustion device, the EPA judged that this approach would not provide a reasonable alternative emissions limit.

The MACT floor for new sources is set by the best controlled source (here, the best controlled amino/phenolic resin facility). In selecting the best controlled facility, the Ranbar and Georgia Pacific, Taylorsville facilities were considered as equally controlled. Because the emission factor for the Ranbar facility is judged to be exceptionally high considering the reported secondary controls, the Georgia Pacific, Taylorsville facility was selected as the best controlled facility. Therefore, the MACT floor for reactor batch process vents at new affected sources was selected as 95 percent emission reduction with an alternative emission limit of 0.01 kilogram of HAP per megagram of product.

Non-Reactor Batch Process Vents

The MACT floor for existing sources is set by the average performance for the best performing 12 percent of existing sources. Here, the amino/phenolic resin facility is the ''source.'' Because there are 40 amino/phenolic resin facilities in the source category for which EPA has emissions information, the best performing 12 percent of existing sources is represented by the best performing 5 facilities. The best performing 5 facilities were selected based on the overall emission reduction achieved by for non-reactor batch process vents by each facility. All of the best performing 5 facilities had applied controls to some of their non-reactor batch process vents, and 2 of the best performing 5 facilities had applied controls to all of their non-reactor batch process vents. This baseline control situation, and the limited data set available for the analysis, led the EPA to consider a single option for the development of existing source MACT floor based on achieving a specified emission reduction for the collection of non-reactor batch process vents within the affected source. Based on the data presented in Table 5, an average facility-wide emission reduction value was calculated as 68 percent.

TABLE 5.—BEST PERFORMING 5 FACILITIES FOR NON-REACTOR BATCH PROCESS VENTS BASED ON OVERALL PERCENT REDUCTION

Company	Location	Emission point	Emission point description	Uncont'd emis. (tpy)	Cont'd emis. (tpy)	Primary control device	Primary device eff.%	Second. control device	Second. device eff.%	Combined eff.%
Schenectady ..	Rotterdam Junction, NY.	E14	Weigh tank	0.247	0.247	None	NR	None.		
Schenectady ..	Rotterdam Junction, NY.	E5/E6	Separator Tank.	24.1	0.241	Condenser	NR	Scrubber	NR	99.5
Schenectady ..	Rotterdam Junction, NY.	E7	Hold Tank	25.2	0.252	Condenser	99	None	NR	NR
Schenectady ..	Rotterdam Junction, NY.	E4	Holding Tank	12.1	12.1	None	.....	None.		
Schenectady ..	Rotterdam Junction, NY.	E15/E16	Mix Tank Unit	7.31	0.3654	Condenser	NR	Scrubber	NR	95
Schenectady ..	Rotterdam Junction, NY.	E20	Separator Unit	21.7	0.11	Condenser	NR	Scrubber		99.5
Schenectady ..	Rotterdam Junction, NY.	E19	Hold Tank	6.76	0.879	Condenser	87	None.		
Schenectady ..	Rotterdam Junction, NY.	E21	Recycle System.	0.182	0.182	None		None.		
Schenectady ..	Rotterdam Junction, NY.	E22/E23	Recycle Tank	2.31	0.0231	Condenser	99	None.		
Schenectady ..	Rotterdam Junction, NY.	E24	Flaking belt ...	5.67	2.84	Scrubber	NR	None.		
Overall Emission Reduction for non-reactor batch process vents is 83.7 percent										
Borden	Louisville, KY	E1A	Weigh Tank/ Fixed Roof.	0.25	0.12	Scrubber	90	None.		
Borden	Louisville, KY	E2A	Weigh Tank/ Fixed Roof.	0.5	0.05	Scrubber	90	None.		
Borden	Louisville, KY	E8	Recovery (phenol).	0.004	0.004	None		None.		

TABLE 5.—BEST PERFORMING 5 FACILITIES FOR NON-REACTOR BATCH PROCESS VENTS BASED ON OVERALL PERCENT REDUCTION—Continued

Company	Location	Emission point	Emission point description	Uncont'd emis. (tpy)	Cont'd emis. (tpy)	Primary control device	Primary device eff.%	Second. control device	Second. device eff.%	Combined eff.%
Borden	Louisville, KY	E11	Cooling & Flaking.	0.005	0.005	Scrubber	90	None.		
Overall Emission Reduction for non-reactor batch process vents is 77 percent										
Dynachem	Georgetown, IL.	E9	Weigh Tank ...	0.25	0.075	Scrubber	72	None.		
Overall Emission Reduction for non-reactor batch process vents is 70 percent										
Solutia	Addyston, OH	E3	Methanol weigh tank.	0.81	0.81	Vapor balance	NR	None.		
Solutia	Addyston, OH	E4	Formaldehyde weigh tank.	0.014	0.014	None	.....	None.		
Solutia	Addyston, OH	E7	Distillation Overhead Tank.	1.44	0.22	Scrubber	85	None.		
Solutia	Addyston, OH	E6	Distillation Feed Tank.	0.261	0.039	Scrubber	85	None.		
Solutia	Addyston, OH	E8	Distillation Bottom Tank.	0.352	0.053	Scrubber	85	None.		
Overall Emission Reduction for non-reactor batch process vents is 60.5 percent										
Borden	Fayetteville, NC.	E2	Weigh Tank ...	0.084	0.042	Scrubber	50	None.		
Borden	Fayetteville, NC.	E2	Weigh Tank ...	0.264	0.132	Scrubber	50	None.		
Borden	Fayetteville, NC.	E2	Weigh Tank ...	0.209	0.1045	Scrubber	50	None.		
Overall Emission Reduction for non-reactor batch process vents is 50 percent										

Facility-wide uncontrolled emissions from non-reactor batch process vents were chosen as the applicability criteria, because it was the only available data, and because the EPA judged that the applicability criteria, like the control level, should be an overall value as opposed to an individual process vent specific value. The uncontrolled emissions cutoff of 0.23 Mg/yr (0.25 tpy) represents the smallest facility-wide uncontrolled emissions from non-reactor batch process vents for a facility in the best performing 5. The smallest value was selected to ensure that all the facilities included in setting the MACT floor would be represented by the applicability criteria.

Putting together the control level and applicability criteria, the MACT floor for non-reactor batch process vents at existing sources requires an overall emissions reduction of 68 percent for the collection of non-reactor batch process vents within the source for sources with uncontrolled emissions from the collection of non-reactor batch process vents greater than or equal to 0.23 Mg/yr (0.25 tpy).

The MACT floor for new sources is set by the best controlled source. Using the overall emission reduction for a facility approach, the best controlled facility achieves an overall emission reduction of 83.7 percent; this value was rounded down to 83 percent.

The CAAA states that existing source MACT can be less stringent than new source MACT. By implication, new source MACT cannot be less stringent than existing source MACT. Therefore, the uncontrolled facility-wide emissions cutoff of 0.23 Mg/yr (0.25 tpy) was used because the uncontrolled emissions at the best controlled facility are 96 Mg/yr (106 tpy). If the value of 96 Mg/yr (106 tpy) were used, the new source standard would be less stringent than the existing source standard. Therefore, the MACT floor for non-reactor batch process vents at new sources requires an overall emissions reduction of 83 percent from the collection of non-reactor batch process vents within the source for sources with uncontrolled emissions from the collection of non-reactor batch process vents greater than or equal to 0.23 Mg/yr (0.25 tpy).

4. Wastewater Streams

The MACT floor for existing and new sources is based on controls at baseline. No facilities that are major sources were identified as controlling their wastewater. Therefore, the MACT floor for existing and new sources is no control.

5. Equipment Leaks

The MACT floor for existing sources is set by the average performance for the best performing 12 percent of existing sources. Here, the amino/phenolic resin facility is the ''source.'' Because there are 40 amino/phenolic resin facilities in the source category for which EPA has emissions information, the best performing 12 percent of existing sources is represented by the best performing 5 facilities. The only source identified as having a leak detection and repair (LDAR) program subject to local, State, or Federal regulations is Solutia's Springfield, MA, facility. A number of other facilities have been identified as having a maintenance-type LDAR program. These maintenance-type programs are likely to be less effective at reducing emissions than the LDAR program in place at the Solutia, Springfield facility. Unfortunately, no information is available to quantify the emission reduction being achieved from these maintenance-type programs. Therefore, the average of the best performing 5 facilities cannot be defined at this time, and the MACT floor for equipment leaks for existing sources is considered to be no control.

The MACT floor for new sources is set by the best controlled source (here, the

best controlled amino/phenolic resins facility). As noted in the previous paragraph, only one affected source has been identified as having a LDAR program as the result of local, State, or Federal regulations, while others have a maintenance-type LDAR program. Therefore, the MACT floor for new affected sources is represented by the LDAR program at the Solutia, Springfield facility.

6. Regulatory Alternatives Beyond the MACT Floor

This section discusses the regulatory alternatives beyond the MACT floor that were evaluated for each of the six emission points where applicable.

The MACT floor for storage vessels at existing sources was identified as 50 percent. The MACT floor for storage vessels at new sources was identified as 50 percent for aqueous formaldehyde storage vessels and 95 percent for non-aqueous formaldehyde storage vessels. For those storage vessels with a 50 percent emission reduction MACT floor, the EPA judged that the incremental emission reductions and costs would result in an incremental cost effectiveness value that was unacceptable. This judgment was based on the small incremental emission reduction that would be achieved versus the large incremental cost in moving from a Scrubber to a combustion device. Although the change in percentage from 50 percent to 95 percent appears to be significant, the low level of HAP emitted from the storage vessels in this source category would yield a small incremental emission reduction being achieved.

The HON process vent provisions were evaluated as a regulatory alternative beyond the MACT floor for continuous process vents. Evaluation of the available data indicated that none of the continuous process vents for which data were available would meet the HON TRE applicability criteria of 1.0. For existing sources, the TRE values ranged from 4.4 to 93.2. For new sources, the TRE values range from 1.2 to 25.4.

Based on the calculated TRE values, it is very unlikely that any continuous process vents at an existing source would be caught by the HON TRE applicability criteria. As the TRE values show (i.e., 4.4 to 93.2), these types of continuous process vents are not cost-effective to control. Therefore, the HON process vent provisions were not selected as the regulatory alternative for existing sources.

While the TRE values show that none of the continuous process vents considered in the analysis would be caught by the HON TRE applicability for new sources, the EPA judged that if a new source were to have a continuous process vent within the cost-effectiveness accepted by the EPA (i.e., with a TRE of 1.0 or less), it should be controlled. Therefore, a two-tiered approach, utilizing the MACT floor level of control for some continuous process vents and the HON provisions for other continuous process vents, was chosen as the regulatory alternative for new affected sources. The HON provisions were included in the selected regulatory alternative because it has been proven through past analyses that the HON provisions are a cost effective approach for controlling continuous process vents. A two-tiered approach was used because the MACT floor is more stringent than the HON; the MACT floor controls continuous process vents that the HON would not control.

The proposed standard for continuous process vents at new sources utilizes the MACT floor level of control and the HON process vent provisions to establish a two-tiered standard. For continuous process vents with a TRE greater than 1.0 but less than 1.2, 85 percent emission reduction is required (i.e., MACT floor). For continuous process vents with a TRE value of 1.0 or less, 98 percent emission reduction is required (i.e., HON). For process vents with a TRE value greater than 1.2, controls are not required. TRE values are estimated using the TRE equations from the HON for a thermal incinerator with 70 percent heat recovery.

The proposed rule does not contain any requirements for the control of continuous process vents at existing sources.

Because the MACT floor level of control for reactor batch process vents at existing sources was based on scrubbers with 93 percent control, the next step was to consider combustion controls as a regulatory alternative beyond the MACT floor. However, this option was not chosen, because the EPA judged that the incremental emission reductions and costs would result in an incremental cost effectiveness value that was unacceptable. This judgment was based on the small incremental emission reduction that would be achieved in moving from 93% emission reduction to 95% or 98% emission reduction versus the large incremental cost in moving from a scrubber to a combustion device.

Not enough information on beyond the MACT floor options for non-reactor batch process vents was available to justify selecting a regulatory alternative beyond the MACT floor.

A monitoring program to detect leaks from the process into the cooling water was selected as the standard for heat exchange systems. This monitoring program is the same as the HON program (subpart F).

Because heat exchange systems have been identified as a potential source of emissions, the EPA judges that proposing a standard to cover this emission point is warranted. However, the EPA is not aware if any heat exchange systems exist in the amino/phenolic resin industry and would like to solicit comments from interested persons on this subject. The request for comment on heat exchange systems is discussed in Section VI of this preamble.

The HON was considered as a regulatory alternative for both existing and new sources for wastewater streams. To evaluate the HON as a regulatory alternative, the available stream data were compared to the HON applicability criteria. No wastewater streams were affected by the HON existing source or new source applicability criteria. It should be noted that there were very little data available for wastewater streams and that for those streams for which data were available, the data were partial (i.e., indicating either wastewater flow or HAP concentration, but not both). However, based on the data, it appeared unlikely that a wastewater stream would be covered by the HON applicability criteria.

The EPA conducted an analysis to determine if a wastewater stream that was covered at the limit of the applicability criteria (i.e., having just enough flow and just enough HAP concentration) would be cost effective to control. The results of this analysis were that cost effectiveness values ranged from $300 per ton of HAP removed to $41,100 per ton of HAP removed. Based on these results, the EPA judged that the HON would be an acceptable regulatory alternative. However, the best available data do not indicate that any wastewater streams at existing affected sources will definitely require control. Without an indication that imposition of the HON wastewater standards would achieve any amount of emission reductions at existing sources, the EPA did not find the cost of the applicability analysis and recordkeeping and reporting requirements, which would be experienced regardless of whether or not a wastewater stream required control, to be justified. Therefore, wastewater streams at existing sources are not required to be controlled.

However, the HON was chosen by the EPA as the standard for new sources.

The EPA believes that because new sources will already be required to characterize their emissions for the Title V permit application, the additional cost of the applicability analysis associated with the wastewater provisions would be acceptable given the potential for reducing emissions.

For equipment leaks at existing sources, two regulatory alternatives were identified—(1) 40 CFR part 60, subpart VV and (2) the HON LDAR program under 40 CFR part 63, subpart H. For new sources, the regulatory alternative evaluated was the application of the HON LDAR program, because the MACT floor is equivalent to the subpart program.

In conducting the regulatory analysis, there are several items that need to be identified to determine whether or not any of the regulatory alternatives are cost effective. First, component counts for each of the major sources need to be determined. Second, estimates of emissions and emission reductions need to be made. Third, the costs associated with the LDAR programs need to be estimated. The details of the methods used in the regulatory alternative analysis are presented in Chapter 6 of the Basis & Purpose Document.

Table 6 presents the results of the cost effectiveness analysis for both new and existing sources. As seen in Table 6, the average cost effectiveness of implementing the SOCMI Subpart VV LDAR program (i.e., a program equivalent to the MACT floor for new sources) from baseline at each of the amino/phenolic resin facilities is $4,207 per megagram of emission reduction. The average incremental cost effectiveness of implementing the HON LDAR program from baseline is $2,608 per megagram of emission reduction. The average incremental cost effectiveness of going from the SOCMI Subpart VV program to the HON program is $1,343 per megagram of emission reduction.

The EPA judged the cost effectiveness values associated with the HON LDAR program to be reasonable and, therefore, selected the HON LDAR program as the proposed standards for equipment leaks at both existing and new affected sources.

TABLE 6.—SUMMARY OF REGULATORY ANALYSIS FOR EQUIPMENT LEAKS

Item	SOCMI, subpart VV	HON
Emission Reduction from Baseline (Mg/yr)	52.6	119.0
Costs ($)	221,313	310,465
Cost Effectiveness ($/Mg)	4,207	2,608
Incremental Emission Reduction (Mg/yr)		66.4
Incremental Costs ($)		89,152
Incremental Cost Effectiveness ($/Mg)		1,343

7. Alternative Standard

The proposed rule would provide an alternative standard for storage vessels, continuous process vents, and batch process vents that are equipped with add-on control devices. The alternative standard requires that emissions from these types of emission points be vented to a control device that is continuously achieving an outlet concentration of 20 ppmv. For emissions points vented to such a control device, it is not necessary to calculate the percent reduction achieved by the control device. Any storage vessels, continuous process vents, or batch process vents not vented to such a control device are subject to the other control provisions in the proposed rule. All process vent and storage vessel emissions that are manifolded to a common control device are considered as one regulated entity under the alternative standard.

As determined during the development of the HON, 20 ppmv is the physical limit that a combustion device can be expected to achieve. For purposes of the proposed rule, setting an alternative standard that is equivalent to the level achieved through combustion is equivalent to or more stringent than the MACT floors and the selected standards for the proposed rule.

The alternative standard is included because the EPA believes that there will be a number of facilities and State regulators that will benefit from a regulatory alternative that encourages aggregating and treating emissions with a state-of-the-art common control device. The alternative standard included in the proposed rule can be applied to individual emission points that have emissions that are controlled with add-on control devices or to emission points that are manifolded together prior to treatment in an end-of-line control device (or series of devices).

8. Implementation of a 800 Megagram per Year Production Cutoff for Equipment Leaks

In response to the prediction by the economic impacts analysis that 5 facilities (3 small businesses) may experience a product line closure (see Section VII.F) based on implementing the standards described in Sections V.C.1 through V.C.6 of this preamble, the EPA reevaluated those areas where the selected standard was more stringent than the MACT floor (see Section V.C.6 of this preamble). The only emission point where the selected standard was more stringent than the MACT floor was equipment leaks. The EPA also evaluated those facilities predicted to experience adverse economic impacts. The EPA found that 4 of these facilities, including the 3 facilities owned by small businesses, had the lowest actual annual production of all 40 major sources expected to be subject to the proposed rule, and the range of production values for these 4 facilities was distinctive from the fifth facility predicted to experience a product line closure. When the requirement to comply with the equipment leak provisions was removed from the 4 facilities with the lowest production values, a revised economic impacts analysis showed that predicted product line closures were reduced from a product line closure at 5 facilities to only 2 facilities. These 2 facilities are comprised of 1 of the 4 facilities for which equipment leak costs were dropped and the fifth facility (i.e., the facility with production distinctive from the other 4 facilities). Further, the two facilities still predicted to experience a product line closure were not owned by small businesses. Based on the results above, the EPA implemented an actual annual production cutoff of 800 megagrams per year for the equipment leaks requirements.

The EPA took this action to mitigate adverse impacts to small businesses while staying within statutory requirements. The value of 800 megagrams per year was selected based on inspection of the data and a sensitivity analysis. First, based on inspection of the data, all 4 facilities reported actual annual production values less than 800 megagrams per year. Second, a sensitivity analysis showed that when equipment leak costs were removed for the ''fifth facility,'' the economic analysis still predicted product line closure for this facility.

D. Selection of the Format of the Proposed Rule

The proposed standards adopt the formats found in the HON for the following emission points: storage vessels, continuous process vents, wastewater, equipment leaks, and heat exchange systems. The **Federal Register** notice for the proposed HON (57 FR 62608; December 31, 1992) provides the rationale for the selection of the specific formats used in the final rule for the HON. Justification for use of a work practice standard for equipment leaks, as opposed to a numerical limit, is included in the HON rationale; such justification is required under Section 112(h) of the Clean Air Act Amendments. The EPA finds no reason for changing those formats and, therefore, has adopted the same formats for this proposed rule as have been promulgated for the HON.

For batch process vents, three formats were selected. For reactor batch process vents, the proposed rule requires that emissions are reduced by a certain percent (i.e., 93 percent at existing sources and 95 percent at new sources) over the batch cycle. As an alternative, the proposed rule allows a demonstration that emissions are limited to 0.017 kilogram of HAP per megagram of product at existing sources or 0.01 kilogram of HAP per megagram of product at new sources. For non-reactor batch process vents, the proposed rule requires that the emissions from the collection of non-reactor batch process vents within the affected source are reduced by 68 percent at existing sources and by 83 percent at new sources. For sources with 0.23 Mg/yr (0.25 tpy) or more of uncontrolled emissions from the collection of non-reactor batch process vents within the source.

For reactor batch process vents, the need to establish a format that considered the nature of batch process vent emissions and the limitations of control devices in achieving constant performance was a major factor in selecting the format of the standard. A percent reduction format is commonly used for process vents, as in the HON, however, requiring a constant emission reduction does not account for the emissions profile of a batch process vent. Therefore, as was done in the Batch Processes ACT, the selected format requires a percent reduction over the batch cycle. This allows the performance of a control device to fluctuate over the batch cycle. This format also allows an owner or operator to elect to control certain portions of the emissions and not control other portions. For example, if a batch process vent had a short period with a high emissions rate and longer periods with very low emissions rates, the selected format allows an owner or operator to over-control (i.e., achieve a percent reduction higher than that required in the standard) the short period of high emissions and not control or under-control the longer periods of low emissions.

As an alternative to demonstrating a percent reduction for the batch cycle, an emission limit expressed as kilogram of HAP per megagram of product was selected as an alternative format. The alternative emission limit is included to provide flexibility and to avoid requiring sources with inherently low emissions to apply secondary controls, thereby encouraging pollution prevention activities.

Similar to reactor batch process vents, establishing a format for non-reactor batch process vents required consideration of the nature of batch process vent emissions and the limitations of control devices in achieving constant performance. A primary factor in expressing the standard for non-reactor batch process vents as an overall emission reduction requirement was the limited data available to the EPA. As discussed earlier, the data available for the best performing 5 facilities that were used in developing the MACT floor included two facilities that had all their non-reactor batch process vents controlled, and this situation, coupled with the lack of stream-specific data, led the EPA to express the standard as an overall percent reduction for the collection of non-reactor batch process vents within an affected source.

E. Selection of Compliance and Performance Test Provisions

Compliance and performance test provisions for the proposed rule are based on the HON, referring readers directly to the HON provisions. Because the rationale for the referenced HON provisions has been presented in detail in the proposal and promulgation preambles to the HON, it is not repeated here. However, specific test methods to be used have changed, and the rationale for the selected test methods is discussed below.

Because of the specific HAP emitted by amino/phenolic resin facilities, the test methods specified in the HON are not completely adequate for the proposed rule. Specifically, formaldehyde is not adequately detected using either Method 18 or Method 25A of appendix A, 40 CFR part 60. Therefore, the following test methods have been added specifically for formaldehyde: Methods 316 and 320. Method 316 is a manual method that was proposed with the Mineral Wool NESHAP (62 FR 25370) and Method 320 is an FTIR-based method that was proposed with the Portland Cement NESHAP (63 FR 14181). Further, Method 18 does not always adequately detect methanol, and Method 308 has been included as an option for testing for methanol. The test methods identified above have been included in the proposed rule in order to ensure that compliance with the proposed rule can be accurately demonstrated. Without the formaldehyde specific test methods, a predominant HAP would not be detected during performance tests or estimation of emissions. While Method 18 is considered adequate for the measurement of methanol, more accurate measurements are possible with Method 308. Therefore, Method 308 has been included as an optional test method for methanol.

The proposed rule specifies procedures to be followed when conducting performance tests, referring to the General Provisions of Subpart A as appropriate. One modification to the General Provisions testing procedures is that the proposed rule requires that all tests be conducted under maximum representative operating conditions; this term is defined in the rule. The intent of maximum representative operating conditions is for the owner or operator, within a specified time period and without rearranging production schedules, to conduct the test under the maximum HAP loading that the control device would experience. For example, if a control device receives emissions from three batch process vents and two of them frequently vent to the control device at the same time, testing should be conducted when at least two of the batch process vents are venting to the control device, as opposed to when only one is venting.

Compliance with the batch process vent provisions is demonstrated by showing that for the batch cycle, if an individual reactor batch process vent is being controlled, or on an overall basis, if non-reactor batch process vents are being controlled, the specified percent reduction is achieved. To demonstrate this, an emissions profile must be developed that identifies each batch emission episode included in the batch process vent and characterizes emissions from each batch emission episode on a mass emitted per unit time basis. Using this emissions profile, the owner or operator must demonstrate that the periods of under-control and over-control of emissions balance, and

the batch cycle percent reduction or the overall percent reduction is achieved.

The procedures for demonstrating compliance with the percent reduction requirements are largely based on the promulgated Group IV Polymers and Resins NESHAP. The intention of the procedures is to allow owners or operators to select the optimum scenario for controlling the batch process vent(s) at their facility and to provide flexibility for an owner or operator to consider the nature of batch process vent emissions and the limitations of control devices in achieving constant performance. The following are examples of how the compliance demonstration procedures for percent reduction would work, first, for an individual reactor batch process vent and, second, for the collection of non-reactor batch process vents within an affected source.

For an individual reactor batch process vent at an existing affected source, the proposed rule requires an owner or operator to reduce emissions by 93 percent for the batch cycle. For this example, a given reactor batch process vent has three batch emission episodes: charging, heating, and purging. Emissions from charging have a high flow rate and a high HAP concentration level. Emissions from heating have a very low flow rate and very low HAP concentration level. Emissions from purging have a moderate flow rate and moderate HAP concentration level. The owner or operator chooses to control the charging episode and the purging episode and to not control the heating episode. In this example, the two controlled batch emission episodes must be over-controlled to a level sufficient to offset not controlling the heating episode. In the final step of the compliance demonstration procedure (see § 63.1417(e)(5)(iii) of the proposed rule), emissions at the outlet of the control device are subtracted from the sum of emissions from the uncontrolled episode and emissions at the inlet of the control device. This value is divided by the sum of emissions from the uncontrolled episode and emissions at the inlet of the control device, and this quotient is multiplied by 100 and compared to the required 93 percent reduction requirement.

For the collection of non-reactor batch process vents at an affected source, a similar example can be described. In this example there are 10 non-reactor batch process vents, 7 with significant emissions and 3 with insignificant emissions. The owner or operator chooses to over-control (e.g., achieve 80 percent emission reduction instead of the required 68 percent) the 7 non-reactor batch process vents with significant emissions. Using the same equation as described above (see § 63.1417(e)(5)(iii) of the proposed rule), the owner or operator demonstrates that periods of under-control and over-control balance, and the specified percent reduction is achieved for the collection of non-reactor batch process vents.

For demonstrating compliance with the kilogram of HAP per megagram of product emission limits, the proposed rule requires that an owner or operator determine the monthly average emission rate (i.e., kilogram of HAP per megagram of product) each month and then calculate a rolling average to determine compliance with the emission limit. Estimates of emissions on a batch emission episode level are based on either direct measurement or other means specified in the proposed rule. Direct measurement is required when engineering assessment shows that 10 tons per year or more of HAP are emitted from an individual batch process vent. Once emissions have been characterized for a batch emission episode, monthly emissions are determined based on the number and type of batch emission episodes run during the month. Once emissions have been characterized for a batch emission episode using direct measurement or other means, the determined values can be used in estimating monthly emissions unless the owner or operator has reason to believe that the emissions estimate for a given batch emission episode is no longer valid.

For the first 12 months of operation, the rolling average is determined based on all the available monthly averages. Beginning after the thirteenth month of operation, the rolling average is a 12-month rolling average based on the individual monthly averages for the preceding 12 months.

F. Selection of Parameter Monitoring Provisions

1. Enhanced Monitoring

Section 114(a)(3) of the Act and § 70.6(c) of the operating permit rule (57 FR 32251; 40 CFR 70.6(c)) require the submission of ''compliance certifications'' from sources subject to the operating permit program. Section 114(a)(3) of the Act requires enhanced monitoring and compliance certifications of all major stationary sources. The annual compliance certifications certify whether compliance has been continuous or intermittent.

2. Background

In general, the EPA recognizes two basic approaches to monitoring. One method is to establish monitoring as a direct measure of continuous compliance. Under this continuous compliance monitoring approach, an enforceable value of the monitored parameter is defined and measured. The Agency has adopted this approach in Part 63 standards, and is committed to following this approach whenever appropriate in future rulemakings. Another approach is to establish monitoring for the purpose of documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements; indicating excursions from these ranges; and responding to the data so that excursions are corrected. This second approach is the basis of the Compliance Assurance Monitoring (CAM) rule, which applies to sources that are not currently subject to Part 63 standards.

When determining appropriate continuous compliance monitoring options, EPA considers the availability and feasibility of the following monitoring strategies in a ''top-down'' fashion: (1) Continuous emission monitoring systems (CEMS) for the actual HAP emitted, (2) CEMS for HAP surrogates (e.g., monitoring for the predominant HAP or total organic compounds as opposed to monitoring for all regulated HAP), (3) monitoring operating parameters, and (4) work practice standards. Thus, where available and feasible, the EPA specifies CEMS for the actual regulated compound(s) for continuous compliance monitoring. This option allows continuous compliance to be determined relative to the emission limit, just as short-term compliance is determined using a performance test. Where a CEMS for the regulated pollutant is not available or feasible, the EPA specifies monitoring a surrogate compound with a CEMS or monitoring an operating parameter that is critical to maintaining compliance performance. Only when these options are not feasible does EPA specify work practice standards as a means of ensuring continuous compliance.

When a Part 63 rule specifies a surrogate pollutant CEMS or parameter monitoring for demonstrating continuous compliance, the rule includes specific limitations and averaging times for these alternative

situations. The surrogate pollutant or operating parameter limit becomes an enforceable limit for the rule. There is no requirement that an alternative limit, whether a surrogate pollutant or operational parameter, be statistically correlated with emissions or the compliance level of the regulated pollutant(s). The alternative limit is a separately enforceable requirement of the rule. The alternative limit is not secondary to the emission limit; rather, it is applied in lieu of a continuous emission limit obligation that would otherwise be measured with a CEMS.

To address the potential disparity between CEMS for the actual HAP emitted and CEMS for HAP surrogate or operating parameter monitoring, there are two types of violations—violations of the emission limit and violations of operating limits. Exceedances of CEMS for the actual HAP are considered violations of the emission limit. Exceedances of CEMS for HAP surrogate or operating parameter monitoring are considered violations of an operating limit. Specifically speaking to the proposed rule, where a source is using an FTIR instrument to monitor compliance with the 20 ppmv alternative standard, an exceedance is defined as a violation of the emission limit. Where a source is monitoring an operating parameter for a control device (e.g., pH of the scrubber liquid), an exceedance is defined as a violation of the operating limit. An exception is that because the exit gas temperature of a condenser is so closely correlated with emissions, an exceedance of the condenser temperature monitoring range is considered a violation of the emission limit.

3. Specific Monitoring Requirements of this Subpart

The proposed rule requires monitoring of HAP emissions and control and recovery device operating parameters. HAP emissions are monitored directly as part of complying with the kilogram of HAP emissions per megagram of product limits for reactor batch process vents or as part of the 20 ppmv alternative standard. Control device operating parameters are monitored as part of complying with the percent reduction requirements of the proposed rule.

Exceptions to the requirement to conduct continuous parameter monitoring are that control devices controlling less than 1 ton per year of uncontrolled emissions are exempt, but must conduct a daily or per batch demonstration that the control device is operating properly. The EPA judged that control devices receiving such small amounts of emissions did not warrant the expense and paperwork burden of establishing parameter monitoring levels and conducting continuous parameter monitoring. The compliance demonstration procedure is subject to review by the Administrator. Another exception is that owners or operators of control devices serving storage vessels are not required to conduct parameter monitoring unless the owner or operator specifies continuous monitoring in the monitoring plan required by the referenced HON provisions. However, if a control device is used, the owners or operator must identify the appropriate monitoring procedures to be followed for compliance demonstration purposes. Further, if a control device serves both a storage vessel(s) and another emission point subject to the proposed rule, the control device is subject to continuous parameter monitoring if the other emission point is subject to continuous parameter monitoring.

An owner or operator may apply to monitor alternate parameters. This provision has been included in previous rules and provides flexibility to the owner or operator who would like to monitor a parameter other than those identified in the rule.

Parameter monitoring levels are established based on design evaluation for control devices with uncontrolled emissions less than 10 tons per year; however, approval by the Administrator is required. The EPA judged that allowing a design evaluation for control devices receiving less than 10 tons per year of uncontrolled emissions was a reasonable balance between reducing burden and cost to the industry and protecting the environment. For all other control devices required to conduct continuous monitoring, parameter monitoring levels are established based on a performance test, but can be supplemented by manufacturer's recommendations and/or an engineering assessment. If the results of the performance test are supplemented by manufacturer's recommendations and/or engineering assessment, approval by the Administrator is required.

The proposed rule requires the affected source to record daily average values for most monitored parameters. The daily averaging period was selected because the purpose of monitoring data is to ensure proper operation and maintenance of the control device. Because it often takes from 12 to 24 hours to correct a problem, this averaging period was considered to best reflect operation and maintenance practices. This averaging period therefore gives the owner or operator a reasonable period of time to take action. If a shorter averaging period (for example 3 hours) was selected, affected sources would be likely to have multiple excursions caused by the same operational problem because it would not be possible to correct problems in one 3-hour period.

For batch process vents, parameter averages may be either batch cycle daily averages or block averages. Using the same rationale as presented above for daily averages, batch cycle daily averages and block averages are included as options in the proposed rule so that monitoring can reflect operation and maintenance practices. The block is defined by the owner or operator and can be no longer than the batch cycle for a batch process vent. Using a block average would allow an owner or operator with a batch cycle that exceeds 24 hours to calculate parameter monitoring averages for the entire batch cycle, which is likely the most reflective period for observing the performance and operation of the control device. For batch cycles that are shorter than 24 hours, the batch cycle daily average allows owners or operators the same benefits extended to control devices receiving emissions from continuous sources.

G. Selection of Recordkeeping and Reporting Requirements

The general recordkeeping and reporting requirements of this subpart are very similar to those found in the HON. The proposed rule also relies on the provisions of subpart A of part 63. A table included in the proposed rule designates which sections of subpart A apply to the proposed rule.

The proposed rule would require affected sources to submit the following reports: Precompliance Report; Notification of Compliance Status; Periodic Reports; and Other Reports. The purpose and contents of each of these reports are described in this section.

The wording of the proposed rule requires all draft reports to be submitted to the ''Administrator''. The term Administrator is defined in § 63.2 as ''the Administrator of the United States Environmental Protection Agency or his or her authorized representative.'' Thus, the term Administrator may include either the Administrator of the EPA, an EPA regional office, a State agency, or other entity that has been delegated the authority to implement the proposed rule. In most cases, reports will be sent to State agencies. Addresses are provided in subpart A of part 63.

Records of reported information and other information necessary to

document compliance with the regulation are generally required to be kept for 5 years. A few records pertaining to equipment design would be kept for the life of the equipment.

1. Precompliance Report

The Precompliance Report includes the following, as appropriate: compliance extension requests; requests to monitor alternative parameters; intent to use alternative controls; intent to use the alternative continuous monitoring and recordkeeping allowed by the rule; demonstration that the emissions estimation equations for batch process vents are not appropriate; and information related to establishing parameter monitoring levels, if required.

These types of information are required prior to the compliance date to allow sufficient review time for the Administrator. To avoid delays caused by a lack of response from the Administrator, some items are considered approved if the Administrator does not respond within a given period of time.

2. Notification of Compliance Status

The Notification of Compliance Status would be submitted 150 days after the affected source's compliance date. It contains the information necessary to demonstrate that compliance has been achieved, such as the results of performance tests, design analyses, and demonstrations of compliance (e.g., demonstration that the overall percent reduction for non-reactor batch process vents has been achieved).

Affected sources with a large number of emission points are likely to be submitting results of multiple performance tests for each kind of emission point. For each test method used for a particular kind of emission point (e.g., a process vent), one complete test report would be submitted. For additional tests performed for the same kind of emission point using the same method, the results would be submitted, but a complete test report is not required. Results would include values needed to determine compliance (e.g., inlet and outlet concentrations, flowrates, percent reduction) as well as the values of monitored parameters averaged over the period of the test. The submission of one test report will allow the regulatory authority to verify that the affected source has followed the correct sampling and analytical procedures and has done calculations correctly. Complete test reports for other emission points may be kept at the plant rather than submitted. This reporting system was established to ensure that reviewing authorities have sufficient information to evaluate the monitoring and testing used to demonstrate compliance while minimizing the reporting burden.

Information demonstrating that the specified percent reduction is being achieved for the batch cycle, if an individual reactor batch process vent is being controlled, or on an overall basis, if non-reactor batch process vents are being controlled, is required. This information includes an emissions profile and a demonstration that the periods of under-control and over-control of emissions balance and the batch cycle percent reduction or the overall percent reduction is achieved.

Another type of information to be included in the Notification of Compliance Status is the specific level for each monitored parameter for each emission point, and the rationale for why this level indicates proper operation of the control device. If this information has already been provided in the operating permit, it does not need to be repeated in the Notification of Compliance Status. As an example, for a batch process vent controlled by a scrubber, the site-specific liquid flowrate into or out of the scrubber, or the pressure drop across the scrubber, that will ensure proper operation of the scrubber is required. For control devices receiving 10 tons per year or more of uncontrolled emissions (i.e., large control devices), the parameter monitoring data from the performance test that supports the calculated parameter monitoring levels is required to be included in the notification. Further, if the owner or operator had chosen to supplement the results of the performance test with manufacturer's recommendations and/or engineering assessment, the rationale to support the specified parameter levels is required. For control devices receiving less than 10 tons per year of uncontrolled emissions (i.e., small control devices), a design evaluation that supports the parameter monitoring levels is required to be included in the notification.

Finally, for control devices receiving less than 1 ton per year of uncontrolled emissions, the daily or per batch demonstration procedure that will be used to verify that the control device is operating properly is required.

3. Periodic Reports

Periodic Reports are required to ensure that the standards continue to be met and that control devices are operated and maintained properly. Generally, Periodic Reports would be submitted semiannually, however, quarterly reports must be submitted in some instances.

Periodic Reports specify periods when the values of monitored parameters are above the maximum or below the minimum established level specified in the Notification of Compliance Status or operating permit. For continuously monitored parameters, records must be kept of the parameter value recorded once every 15 minutes. If a parameter is monitored more frequently than once every 15 minutes, the 15-minute averages may be kept instead of the individual values. This requirement ensures that there will be enough monitoring values recorded to be representative of the monitoring period without requiring the affected source to retain additional data.

For some types of emission points and controls, periodic (e.g., monthly, quarterly, or annual) inspections or measurements are required instead of continuous monitoring. For control devices receiving less than 1 ton per year of uncontrolled emissions, continuous monitoring is not required. Instead, a daily demonstration that the control device is working is required. Records that such inspections, measurements, or demonstrations were done must be kept; but results are included in Periodic Reports only if a problem is found. This requirement is designed to minimize the recordkeeping and reporting burden of the proposed rule.

4. Other Reports

There are a very limited number of other reports. Where possible, the proposed rule is structured to allow information to be reported in the semiannual (or quarterly) Periodic Reports. However, in a few cases, it is necessary for the affected source to provide information to the regulatory authority shortly before or after a specific event. For example, notification prior to internal storage vessel inspections is required to allow the regulatory authority to have an observer present. Certain notifications and reports required by subpart A of part 63 must also be submitted.

5. Possible Alternative Recordkeeping Requirements

The proposed rule requires affected sources to keep readily accessible records of monitored parameters. For those control devices that must be monitored continuously, records which include at least one monitored value for every 15 minutes of operation are considered sufficient. These monitoring records must be maintained for 5 years. However, there are some existing monitoring systems that might not satisfy these requirements. To comply

with the proposed rule, affected sources have the flexibility to request approval for the use of alternative recordkeeping systems under the proposed rule or under provisions of subpart A of part 63.

VI. Solicitation of Comments

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

Comments are specifically requested on several aspects of the proposed rule. These topics, grouped under the headings ''Batch Process Vents'' and ''Other Topics,'' are summarized below.

Batch Process Vents

Basis for the Percent Reduction for Batch Process Vent Standards

Industry representatives have expressed concern with the adequacy of the batch process vent emissions and control device efficiency data available to the EPA for this rulemaking, and they have also expressed concern with how the available data have been used in developing a standard for reactor batch process vents. The EPA is requesting comment on these concerns and data to address this issue.

Specific concerns with the data available to the EPA that have been expressed by industry representatives include the following. First, the data made available to the EPA through the 1992 Information Collection Request (ICR) responses are not based on emissions testing and are largely engineering estimates. It is the EPA's impression that emissions data provided in the 1992 ICR responses is sometimes an annualization of emissions from a single batch. Second, the basis for the control device efficiencies provided in the 1992 ICR responses are not described or qualified, and these data are also not based on testing and are largely engineering estimates. Industry representatives felt that many of the higher percent reduction levels reported in the 1992 ICR responses would not be achievable over an extended period of time and that the reported values were likely maximum efficiencies.

The primary concern expressed by the industry with how the data were used by the EPA in setting a standard for reactor batch process vents is that the available control device data, in large part, represent maximum efficiencies, and the EPA used those values to set a standard that must be averaged across the entire batch. More specifically, the owners of the facility which serves as the basis for the MACT floor for existing affected sources and subsequently the basis for the standard (Georgia Pacific) have stated that they cannot support the percent reduction value reported in the 1992 ICR response as being achievable by their facility. At the time the 1992 ICR response was prepared, no test data were available for this facility, and the reported data were based on engineering estimates.

Regarding the alternative emission limit (i.e., kg of HAP per Mg of product) that accompanies the percent reduction standard, industry representatives stated that emissions per batch can vary for different batches of product. Therefore, when annual emissions, based on emissions from a single batch, are used to determine the alternative emission limit, the basis for the alternative emission limits is questionable.

While hearing these concerns, the EPA judged that the rulemaking had to continue forward. The EPA used the best data available. It should be noted that this data was collected through Section 114 surveys and was used only after several rounds of clarifying questions to better understand the data and improve it whenever possible. The EPA is very interested in any better data that can be provided by the limited number of companies that have applied secondary controls and will give it full consideration in developing the final standard.

If further data is provided, the EPA requests specifics on the concerns and issues described above. The basis for compliance demonstration is presented in the preamble and the proposed rule. Data provided to address the concerns related to the percent reduction standard should express control device performance on the same basis that will be used for compliance demonstrations. For the alternative standard, emissions data provided by industry should account for the expected or typical annual production, thereby providing a more representative estimate of annual emissions. The source of data and the limitations on its use should be clearly described.

The EPA anticipates receiving data on this topic only from facilities operated by 9 companies that are identified in docket item number II–B–12, Docket Number A–92–19, as having applied secondary controls. Because this solicitation of data is directed at 9 companies, and not an entire industry, the requirements of the Paperwork Reduction Act do not apply.

Separate Treatment of Reactor and Non-Reactor Batch Process Vents

As defined in the proposed rule, reactor batch process vents are batch process vents originating from a reactor. Non-reactor batch process vents are batch process vents originating from a unit operation other than a reactor, and include, but are not limited to, batch process vents from filter presses, surge control vessels, bottoms receivers, weigh tanks, and distillation systems. All facilities reported the presence of reactor batch process vents. Although many facilities did not report the presence of non-reactor batch process vents, the EPA judged that all facilities had some number of these types of batch process vents because these unit operations are necessary to manufacture amino/phenolic resins. As described in Section V of this preamble, the EPA chose not to include non-reactor batch process vents with reactor batch process vents, primarily because development of a MACT floor regulating both types of batch process vents may not be representative of the control level at existing sources for non-reactor batch process vents.

The EPA is requesting comment on treating reactor and non-reactor batch process vents separately. Further, the EPA is requesting additional data concerning the presence, emissions, and control status of non-reactor batch process vents at amino/phenolic resin process units.

Use of FTIR and Method PS–15

The proposed rule provides an alternative emission limit for storage vessels, continuous process vents, reactor batch process vents, and non-reactor batch process vents that allow an owner or operator to vent these kinds of emissions points to a control device that continuously achieves an outlet concentration of 20 ppmv of organic HAP. The proposed rule requires that continuous compliance with this alternative emission limit be demonstrated through the use of an FTIR (Fourier Transform Infrared Spectroscopy) instrument and Method PS–15 of 40 CFR part 60, appendix B. The EPA is requesting comment on this compliance demonstration procedure.

Methanol Emissions From Amino/Phenolic Resin Production

A concern has been raised by industry related to the possibility that responses to the 1992 ICR did not include

emissions of methanol originating from the use of aqueous formaldehyde. If emissions of methanol were not included, it is possible that the alternative emission limits that accompany the percent reduction standard for reactor batch process vents may not be representative of actual emissions. The EPA is requesting data on this issue.

Use of Solvent-Based and Non-Solvent-Based Alternative Emission Limits

The EPA considered proposing two alternative emission limits to accompany the percent reduction standards for reactor batch process vents, but, as explained in Section V of this preamble, the available data presented problems with this approach. The EPA is requesting comment on how the use of two alternative emission limits (i.e., one for solvent-based production and one for non-solvent-based production) could be implemented and is requesting the data required to implement such an approach.

Based on the available data, the EPA considered implementing the two emission limit concept by declaring an affected source to be a solvent-based producer or non-solvent-based producer based on the total mass of product. Under the approach that was considered, if more than 50 percent of the product is solvent-based, the affected source would be declared a solvent-based producer and would be required to meet the percent reduction standard or the solvent-based alternative emission limit. An alternative approach would be for an affected source to meet the solvent-based emission limit whenever it is producing a solvent-based resin and to meet the non-solvent-based emission limit for all other production.

The EPA is requesting non-confidential data (i.e., emissions and production data) that would allow the EPA to establish a solvent-based and non-solvent-based alternative emission limit. In regard to the alternative approach described above (i.e., meeting the solvent-based emission limit when producing solvent-based resins and meeting the non-solvent-based emission limit otherwise) the EPA is particularly interested in receiving data that would distinguish emissions from the production of solvent-based resins versus emissions from the production of non-solvent-based resins.

Other Topics

Definitions of Amino and Phenolic Resin

The EPA is requesting comment on the definitions included in the proposed rule for amino resin and for phenolic resin. [Note: while the proposed rule includes an administrative action to combine the amino and phenolic resin source categories into a single source category, the EPA believes that separate definitions for the two types of resins are required.] The EPA requests comments addressing whether or not products commonly considered by the industry to be amino or phenolic resins are included by the definitions and products commonly considered by the industry not to be amino or phenolic resins are excluded by the definitions.

Applicability Criteria Alternative for Storage Vessels

During the analysis of the MACT floor for storage vessels, the EPA considered an alternative approach for developing the applicability criteria (i.e., description of which storage vessels require control) based on the approach used to develop storage vessel applicability criteria under the Pesticides NESHAP. This alternative approach results in the same control level requirement of 50 percent emission reduction for storage vessels at existing affected sources. For storage vessels at new affected sources, the control level would increase to 95 percent emission reduction. For storage vessels at existing affected sources, the alternative approach uses an uncontrolled emissions cutoff for the applicability criteria, determined to be 812 Mg/yr. Therefore, storage vessels at existing affected sources with uncontrolled emissions of 812 Mg/yr or greater would be required to apply controls. For storage vessels at new affected sources, the alternative approach considers storage vessel capacity and uncontrolled emissions. For storage vessels at new affected sources, the alternative approach would require control for storage vessels with capacities of 10,150 gallons or greater with uncontrolled emissions of 222 lb/yr or greater.

The EPA is requesting comment on this alternative approach. The alternative approach and the results described above are documented in more detail in docket item II–B–13, available in Docket Number A–92–19.

Heat Exchange Systems

The EPA is requesting comment on the presence of heat exchange systems in this industry. The EPA has found heat exchange systems to be a potential source of emissions warranting controls. However, the EPA does not wish to regulate a type of equipment that is not present in the industry, and the EPA does not have adequate information to determine whether or not heat exchange systems are present at amino/phenolic resin process units.

VII. Summary of Environmental, Energy, Cost, and Economic Impacts

This section presents the air, non-air environmental (wastewater and solid waste), energy, cost, and economic impacts resulting from the control of organic HAP emissions under the proposed rule.

A. Facilities Affected by These NESHAP

The proposed rule would affect amino/phenolic resin facilities that are major sources in themselves, or that are located within a major source. Based on available information, 40 amino/phenolic resins facilities were judged to be major sources.

Impacts are presented relative to a baseline reflecting the level of control in the absence of the rule. The current level of control was well understood because emissions and control data were collected on each facility included in the analysis. The estimation of impacts was determined for existing facilities only. Impacts for new facilities were not estimated because no new facilities are projected to be constructed.

The impacts for existing sources were estimated by applying the controls necessary to bring each facility into compliance with the proposed standards. For a facility or emission point within a facility already in compliance with the proposed standards, no impacts were estimated for that facility or emission point.

B. Primary Air Impacts

The proposed standards are estimated to reduce organic HAP emissions from all existing sources by 356 Mg/yr from a baseline level of 644 Mg/yr. This is a 55 percent reduction. Table 7 summarizes the organic HAP emission reductions for each of the emission points.

TABLE 7.—ORGANIC HAP EMISSION REDUCTIONS BY EMISSION POINT FOR EXISTING SOURCES

Emission point	Baseline emissions (Mg/yr)	Emissions after proposed rule (Mg/yr)	Emission reduction (Mg/yr)	Percent reduction (percent)
Reactor Batch Process Vents	202.4	20.0	182.4	90.1
Non-reactor Batch Process Vents	109.0	49.1	59.9	55.0
Continuous Process Vents	116.4	116.4	0	0
Storage Tanks	65.4	65.3	0.1	0.2
Wastewater	6.1	6.1	0	0
Equipment Leaks	144.6	30.6	114.0	78.8
Total	643.9	287.6	356.3	55.3

C. Non-air Environmental Impacts

The proposed standards are not expected to increase the generation of solid waste at any amino/phenolic resin facility.

The use of scrubbers to control emissions will increase water consumption as a result of evaporation and bleed-off. Bleed-off is the release of a small percentage of the recirculated scrubber water to control buildup or accumulation of scale, or other contaminates. Scrubbers designed to capture emissions from reactor and non-reactor batch process vents are small in size and should require less than 100 gallons of bleed-off per day per reactor.

Many of the HAP being controlled by scrubbers are water soluble, with very low evaporation rates once in water. Therefore, the EPA does not expect the HAP to be released from the scrubber wastewater at a point downstream from the scrubber.

In general, the EPA expects the adverse impact of the wastewater generated by the scrubbers to be small to negligible. First, the HAP contained in the wastewater from the scrubber are very susceptible to being eaten by the various bacteria found in wastewater treatment plants. Thus, for those facilities that send or will send the scrubber wastewater to a wastewater treatment facility, there should be minimal adverse impacts.

Some facilities may not be able to send their scrubber wastewater to a treatment facility. These facilities may be able to recycle all of the scrubber wastewater within the facility. From information gathered through site visits and telephone conversations with industry, the EPA determined that some facilities recycle wastewater containing the predominant HAP emitted by batch process vents (i.e., formaldehyde, methanol, and phenol). Three resin plants visited by the EPA collected and reused their wastewater. The recovered wastewater contains the raw materials used in the reactor process. Recycling wastewater into the resin manufacturing process reduces the quantities of raw materials required to be purchased, thus reducing costs. Based on telephone conversations with industry, one resin manufacturer uses a water pit to collect emissions from the reactor. Water is removed from the pit when the formaldehyde concentration reaches approximately three percent and is placed in a storage tank. The stored water is added to raw materials in the reactors to establish the proper viscosity at the beginning of a resin batch.

In summary, the EPA expects that affected facilities will be able to either send the scrubber wastewater to a treatment facility or recycle the scrubber wastewater back into the process. Therefore, the use of scrubbers will result in minimal, if any, adverse wastewater impacts.

D. Energy Impacts

Energy impacts include changes in energy use, typically increases, and secondary air impacts associated with increased energy use. Increases in energy use are associated with fuel for the operation of control equipment; in this case, the use of scrubbers to control reactor vents. Energy credits are attributable to the prevention of organic HAP emissions from equipment leaks. Secondary air impacts associated with increased energy use are the emission of particulates, sulfur dioxides (SO_X), and nitrogen oxide (NO_X). These secondary impacts are associated with power plants that would supply the increased energy demand. (For more information on the calculation of the estimated energy impacts, see the ''Estimated Energy and Secondary Air Impacts'' memorandum, Docket Item II–B–16.)

As noted above, energy use is expected to increase due to the use of scrubbers to control reactor vents which would be used to comply with the proposed rule. The use of scrubbers is estimated to increase energy use by approximately 2,340 barrels of oil per year for the 40 existing major sources. The emissions of secondary air pollutants from power plants supplying the power for this energy increase are estimated to be 3 Mg/yr of filterable particulate, 15 Mg/yr of SO_X, and 0.3 Mg/yr of NO_X.

At the same time, the prevention of organic HAP emissions from equipment leaks generates energy credits. These energy credits are expected to be relatively small and have not been estimated.

Energy impacts related to the control of storage vessels were estimated to be neglible (or zero) because many storage vessels would be controlled through the use of internal floating roofs, which do not have any associated energy impacts.

As stated above, the use of scrubbers results in an increase of oil consumption per year for the 40 major existing sources. The net increase will be smaller due to the energy credits generated by the control of equipment leak emissions. Given the relatively small energy impact projected from the control of batch process vents, the EPA has judged the energy impacts associated with the proposed rule to be acceptable.

E. Cost Impacts

Cost impacts include the capital costs of new control equipment, the cost of energy (supplemental fuel and electricity) required to operate control equipment, operation and maintenance costs, and the cost savings generated by reducing the loss of valuable product in the form of emissions. Also, cost impacts include the costs of monitoring, recordkeeping, and reporting associated with the proposed standards. Average cost effectiveness ($/Mg of pollutant removed) is also presented as part of cost impacts and is determined by dividing the annual cost by the annual emission reduction. Table 8 presents the estimated capital and annual costs and average cost effectiveness by existing affected sources. There are no estimated cost impacts for new facilities, because no new facilities are expected to be constructed.

Under the proposed rule, it is estimated that total capital costs for existing sources would be $2,211,700 (1989 dollars), and total annual costs would be $2,502,800 (1989 dollars) per year. The use of 1989 dollars in estimating the costs associated with the proposed standards was done in order to be consistent with the cost effectiveness decisions reached for setting the HON standards, which form the basis for most of the standards being proposed for the amino/phenolic source category. The actual compliance cost impacts of the proposed rule may be less than presented because of the potential to use common control devices, to upgrade existing control devices, and to vent emissions streams into current control devices. Because the effect of such practices is highly site-specific and data were unavailable to estimate how often the lower cost compliance practices could be utilized, it is not possible to quantify the amount by which actual compliance costs would be reduced.

TABLE 8.—SUMMARY OF COST IMPACTS

Emission point	Total capital costs ($1,000)	Total annual costs ($1,000)	Average cost effectiveness ($/Mg)
Reactor and Non-reactor Batch Process Vents	1,687	1,279	5,280
Continuous Process Vents	0	0	NA
Storage Tanks	31.6	8.8	88,000
Wastewater	0	0	NA
Equipment Leaks	412.7	290.9	2,550
Monitoring, Recordkeeping, and Reporting, excluding equipment leaks	80	924.2	NA
Total*	2,211.7	2,502.8	7,024

*Totals may not sum due to rounding.

F. Economic Impacts

An economic impact analysis for the proposed rule estimated the impacts to affected businesses in the amino/phenolic resins source category. Prices for products from the 20 businesses that operate the 40 facilities affected by this rule are estimated to increase by 0.1 percent for amino resin businesses and 0.1 percent for phenolic resin businesses. Output for these products are estimated to decrease by less than 0.1 percent for amino resin businesses and less than 0.1 percent for phenolic resin businesses. Revenues for the entire amino/phenolic industry are estimated to increase by slightly less than 0.1 percent, and this is due to the expected increase in product prices resulting from the proposed rule that will be experienced by amino/phenolic resin producers that are not affected by this rule. The level of employment in these industries is estimated to fall by about 1 percent based on estimates to adversely affected businesses only. Potentially, two facilities are expected to incur closures of product lines from costs associated with this proposed rule.

A preliminary version of the economic impact analysis showed that 5 affected resin product lines, 3 of them owned by small businesses, may cease operations as a result of implementation of the proposed NESHAP. As discussed in Section V.C.8 of this preamble, upon receiving these results, the Agency reviewed the available cost, economic, and other data on these affected businesses and facilities in order to develop a less burdensome proposed rule. An approach utilizing an actual annual production cutoff of 800 megagrams per year was developed and analyzed. After removal of the equipment leak requirements for 4 of the 5 facilities originally predicted to cease operation, only 2 affected resin product lines were shown to potentially cease operations. Neither of these product lines were owned by small businesses. Therefore, the addition of this 800 megagram per year equipment leaks applicability cutoff leads to minimal adverse economic impacts associated with the proposed rule, and no significant economic impact on any small businesses.

The economic impact analysis shows that 2 affected resin product lines may cease operations as a result of implementation of the proposed NESHAP. The Agency considers these to be an overstatement of the likely impacts of the proposal NESHAP for the following reasons: (1) the resin product lines projected to close may be captive producers that are not subject to the closure criteria employed by the economic impact model; and (2) the resin product lines projected to close produce small volumes of output so that the baseline characterization of these lines may understate operating profits because they likely produce specialty resins with higher market prices than used in the economic impact model.

For more information, refer to the Economic Impact Analysis of the Proposed National Emission Standard for Hazardous Air Pollutants: Manufacture of Amino/Phenolic Resins (contained in the docket for this rule).

VIII. Administrative Requirements

A. Docket

The docket for the proposed rule is A–92–19. The docket is an organized and complete file of all the information submitted to or otherwise considered by the EPA in the development of this rulemaking. The principal purposes of the docket are: (1) To allow interested parties a means to identify and locate documents so that they can effectively participate in the rulemaking process; and (2) To serve as the record in case of judicial review (except for interagency review materials (section 307(d)(7)(A) of the Act).

This docket contains copies of the regulatory text, Basis and Purpose Document (BPD), BPD references, and technical memoranda documenting the information considered by the EPA in the development of the proposed rule. The docket is available for public inspection at the EPA's Air and Radiation Docket and Information Center, the location of which is given in the **ADDRESSES** section of this notice.

B. Paperwork Reduction Act

The information collection requirements in this proposed rule 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 EPA (ICR No. 1869.01) and a copy may be obtained from Sandy Farmer by mail at OPPE Regulatory Information Division; U.S. Environmental Protection Agency

(2137); 401 M St., SW; Washington, DC 20460; by e-mail at farmer.sandy@epamail.epa.gov; or by calling (202) 260–2740. A copy may also be downloaded off the Internet at http://www.epa.gov/icr.

Certain records and reports are necessary to enable the Administrator to identify facilities subject to the standard and to ensure that the standard, which is based on maximum achievable control technology (MACT) specific to amino/phenolic resin facilities, is being achieved. The information will be used by Agency enforcement personnel to (1) identify new, modified, reconstructed, and existing facilities subject to the standards; and (2) ensure that compliance is being maintained and documented. Records and reports are necessary to enable the Agency to identify facilities that are not in compliance with the standards. Based on reported information, the EPA can decide which facilities should be inspected and which records or processes should be inspected at these facilities.

Amino/phenolic resin facilities would be required to submit the initial Notification of Compliance Status within 5 months of the compliance date of the standard. Records necessary to determine compliance would be compiled and periodic reports would be submitted on a semiannual basis.

All information submitted to the Agency for which a claim of confidentiality is made will be safeguarded according to the Agency policies set forth in the Code of Federal Regulations, Title 40, Chapter 1, Part 2 Subpart B—Confidentiality of Business Information (see 40 CFR 2.201 *et seq.*; 41 FR 36902, September 1, 1976; amended by 43 FR 39999, September 8, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979; 50 FR 51661, Dec. 18, 1985; 58 FR 461, Jan. 5, 1993; 58 FR 5061, Jan. 19, 1993; 58 FR 7189, Feb. 5, 1993).

The total annual reporting and recordkeeping burden for this collection averaged over the first 3 years is estimated to be $1,062,900 per year for the entire source category. The average burden, per respondent, is 806 hours per year with a one-time capital cost of $2,000. After the initial response, responses would be required semiannually. There are an estimated 40 respondents initially subject to the proposed collection requirements. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR Chapter 15.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M St., SW; Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., NW, Washington, DC 20503, marked ''Attention: Desk Officer for EPA.'' Include the ICR number in any correspondence. Because the OMB is required to make a decision concerning the ICR between 30 and 60 days after December 14, 1998, a comment to OMB is best assured of having its full effect if OMB receives it by January 13, 1999. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Executive Order 12866 Review

Under Executive Order 12866, the EPA must determine whether a 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 lead to 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.

It has been determined by EPA and OMB that this rule is not a ''significant regulatory action'' within the meaning of the Executive Order.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions. This proposed rule will not have a significant impact on a substantial number of small entities for the following reasons: (1) There are only 8 small businesses among the 20 businesses affected by this rule that operate the 40 affected facilities; (2) a screening analysis indicates no affected small business is likely to incur an annual compliance cost of more than 1 percent as a percentage of sales; (3) price increases and resulting production decreases may occur for the small businesses' affected products after compliance is achieved but neither is expected to exceed 0.1 percent; and (4) no facilities or product lines owned by these small businesses are projected to be at risk of closure from compliance with this proposed rule. Therefore, I certify that this proposed action will not have a significant economic impact on a substantial number of small entities.

For more information on the results given in this section, please refer to the Economic Impact Analysis of the Proposed National Emission Standard for Hazardous Air Pollutants: Manufacture of Amino/Phenolic Resins (contained in the docket for this rule).

E. Unfunded Mandates

Under Section 202 of the Unfunded Mandates Reform Act of 1995 (''Unfunded Mandates Act''), the EPA must prepare a budgetary impact statement to accompany any proposed rule, or any final rule for which a notice of proposed rulemaking was published, 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 in any one year. Under Section 205, if a budgetary impact statement is required under section 202, the EPA must select the least costly, most cost-effective, or least burdensome alternative that achieves the objective of the rule, unless the Agency explains why this alternative is not selected or the selection of this alternative is inconsistent with law. 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. Section 204 requires the Agency to develop a process to allow elected state, local, and tribal government officials to provide input in the development of any proposal containing a significant Federal intergovernmental mandate.

The EPA has determined that this proposed rule 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. The EPA has also determined that this proposed rule does not significantly or uniquely impact small governments. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

F. Executive Order 12875

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments. If the mandate is unfunded, EPA must provide to the Office of Management and Budget a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, copies of any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments ''to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.'' Today's rule does not create a mandate on State, local or tribal governments. The rule does not impose any enforceable duties on these entities. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

G. National Technology Transfer and Advancement Act

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

This proposed rulemaking includes technical standards. Consequently, the EPA searched for applicable voluntary consensus standards by searching the National Standards System Network (NSSN) database. The NSSN is an automated service provided by the American National Standards Institute for identifying available national and international standards.

EPA searched for methods potentially equivalent to the methods required by this proposed rule, all of which are methods previously promulgated by EPA. The proposed rule includes methods that measure: (1) Determination of actual oxygen concentration (%O2d)(EPA Method 3B); (2) sampling site location (EPA Method 1 or 1A); (3) volumetric flow rate for batch emission episode (EPA Methods 2, 2A, 2C, or 2D); (4) gas analysis (EPA Method 3); (5) stack gas moisture (EPA Method 4); (6) concentration of formaldehyde (EPA Method 316 or 320); (7) concentration of all organic HAP other than formaldehyde (EPA Method 18); and (8) concentration of methanol (EPA Method 308 or 18). These EPA methods are found in Appendix A to part 60.

No potentially equivalent methods for the methods in the proposal were found in the NSSN database search. Therefore, the EPA proposes to use the methods listed above. EPA welcomes comment on this aspect of the proposed rulemaking and specifically invites the public to identify potentially-applicable voluntary consensus standards and to explain why this regulation should provide for the use of these standards. Methods submitted for evaluation should be accompanied with a basis for the recommendation, including method validation data and the procedure used to validate the candidate method (if a method other than Method 301, 40 CFR part 63, Appendix A was used).

H. Executive Order 13045

Executive Order 13045 applies to any rule that EPA determines (1) ''economically significant'' as defined under Executive Order 12866, and (2) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This proposed rule is not subject to E.O. 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because it does not involve decisions on environmental health risks or safety risks that may disproportionately affect children.

I. Executive Order 13084

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments. If the mandate is unfunded, EPA must provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.'' Today's rule does not significantly or uniquely affect the communities of Indian tribal governments. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

List of Subjects in 40 CFR Part 63

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

Dated: September 30, 1998.

Carol M. Browner,

Administrator.

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

PART 63—[AMENDED]

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

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

2. It is proposed that part 63 be amended by adding subpart OOO to read as follows:

Subpart OOO—National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins

Sec.

Subpart OOO—National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins

§ 63.1400 Applicability and designation of affected sources.

(a) *Definition of affected source.* The provisions of this subpart apply to each affected source. Affected sources are described in paragraphs (a)(1) through (a)(4) of this section.

(1) An affected source is either an existing affected source or a new affected source. Existing affected source is defined in paragraph (a)(3) of this section, and new affected source is defined in paragraph (a)(4) of this section.

(2) Emission points and equipment. The affected source includes the emission points and equipment specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section that are associated with each group of amino/phenolic resin process units (APPU) making up an affected source.

(i) Each waste management unit.

(ii) Maintenance wastewater.

(iii) Each heat exchange system.

(iv) Equipment required by, or utilized as a method of compliance with, this subpart which may include control devices and recovery devices.

(3) An existing affected source is defined as each group of one or more APPU, that is not part of a new affected source, as defined in paragraph (a)(4) of this section, that is located at a plant site that is a major source.

(4) A new affected source is defined as something that meets the criteria of paragraph (a)(4)(i), (a)(4)(ii), or (a)(4)(iii) of this section. The situation described in paragraph (a)(4)(i) of this section is distinct from those situations described in paragraphs (a)(4)(ii) and (a)(4)(iii) of this section and from any situation described in paragraph (i)of this section.

(i) At a site previously without HAP emission points (i.e., a ''greenfield'' site), each group of one or more APPUs on which construction commenced after December 14, 1998 that are part of a major source;

(ii) An APPU meeting the criteria in paragraph (i)(1)(i) of this section; or

(iii) A reconstructed affected source meeting the criteria in paragraph (i)(2)(i) of this section.

(b) *APPUs without organic HAP.* The owner or operator of an APPU that is part of an affected source, as defined in paragraph (a) of this section, but that does not use or manufacture any organic HAP shall comply with the requirements of either paragraph (b)(1) or (b)(2) of this section. Such an APPU is not subject to any other provisions of this subpart and is not required to comply with the provisions of subpart A of this part.

(1) The owner or operator shall retain information, data, and analysis used to document the basis for the determination that the APPU does not use or manufacture any organic HAP. Types of information that could document this determination include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

(2) When requested by the Administrator, the owner or operator shall demonstrate that the APPU does not use any organic HAP.

(c) *Emission points not subject to the provisions of this subpart.* The affected source includes the emission points listed in paragraphs (c)(1) through (c)(9) of this section, but these emission points are not subject to the requirements of this subpart or to the provisions of subpart A of this part:

(1) Equipment that does not contain organic HAP and is located within an APPU that is part of an affected source;

(2) Stormwater from segregated sewers;

(3) Water from fire-fighting and deluge systems in segregated sewers;

(4) Spills;

(5) Water from safety showers;

(6) Water from testing of deluge systems;

(7) Water from testing of firefighting systems;

(8) Vessels and equipment storing and/or handling material that contain no organic HAP and/or organic HAP as impurities only; and

(9) Equipment that is intended to operate in organic HAP service for less than 300 hours during the calendar year.

(d) *Processes exempted from the affected source.* The processes specified in this paragraph (d) are exempted from the affected source: Research and development facilities.

(e) [Reserved]

(f) *Primary product determination and applicability.* The primary product of a process unit shall be determined according to the procedures specified in paragraphs (f)(1) through (f)(2) of this section. Paragraphs (f)(3) through (f)(4) of this section describe whether or not a process unit is subject to this subpart. Paragraphs (f)(5) through (f)(7) of this section discuss compliance for those APPUs operated as flexible operation units, as specified in paragraph (f)(2) of this section. For purpose of this

paragraph (f), amino resins and phenolic resins shall be considered to be the same product. For purposes of this paragraph (f), the term ''product,'' when discussing amino resins or phenolic resins, shall have the additional meaning of being either an amino resin, a phenolic resin, or both. Additionally, the term amino/phenolic resin, as defined in § 63.1402, shall have the same meaning: either an amino resin, a phenolic resin, or both.

(1) If a process unit only manufactures one product, then that product shall represent the primary product of the process unit.

(2) If a process unit is designed and operated as a flexible operation unit, the primary product shall be determined as specified in paragraphs (f)(2)(i) or (f)(2)(ii) of this section based on the anticipated operations for the 5 years following [date of publication of final rule] for existing affected sources and for the first 5 years after initial start-up for new affected sources.

(i) If the flexible operation unit will manufacture one product for the greatest operating time over the five year period, then that product shall represent the primary product of the flexible operation unit.

(ii) If the flexible operation unit will manufacture multiple products equally based on operating time, then the product with the greatest production on a mass basis over the five year period shall represent the primary product of the flexible operation unit.

(3) If the primary product of a process unit is an amino/phenolic resin, then said process unit is considered an APPU. Said APPU is either an affected source or part of an affected source comprised of other APPU subject to this subpart at the same plant site. The status of a process unit as an APPU and as an affected source or part of an affected source shall not change regardless of what products are produced in the future by said APPU, with the exception noted in paragraph (f)(3)(i) of this section.

(i) If a process unit terminates the production of all amino/phenolic resins and does not anticipate the production of any amino/phenolic resins in the future, the process unit is no longer an APPU, is no longer an affected source or part of an affected source, and is not subject to this subpart after notification is made as specified in paragraph (f)(3)(ii) of this section.

(ii) The owner or operator of a process unit that wishes to remove the APPU designation from the process unit, as specified in paragraph (f)(3)(i) of this section, shall notify the Administrator. This notification shall be accompanied by a rationale for why it is anticipated that no amino/phenolic resins will be produced in the process unit in the future.

(iii) If a process unit meeting the criteria of paragraph (f)(3)(i) of this section begins the production of an amino/phenolic resin in the future, the owner or operator shall use the procedures in paragraph (f)(4)(i) of this section to determine if the process unit is re-designated as an APPU.

(4) If the primary product of a process unit is not an amino/phenolic resin, then said process unit is not an APPU, nor is it an affected source, nor is it part of any affected source subject to this subpart. Said process unit is not subject to this subpart at any time, regardless of what product is being produced. The status of a process unit as not being an APPU, and therefore not an affected source nor part of an affected source subject to this subpart, shall not change regardless of what products are produced in the future by said process unit, with the exception noted in paragraph (f)(4)(i) of this section.

(i) If, at any time beginning [date 5 years after date of publication of final rule], the owner or operator determines that an amino/phenolic resin is the primary product for the process unit based on actual production data for any preceding consecutive five-year period, then the process unit shall be designated as an APPU. If said APPU is not subject to another subpart of this part 63, it is either an affected source or part of an affected source. Said APPU shall be subject to this subpart and shall comply with paragraph (f)(4)(ii) of this section. Beginning on [date 5 years after the date of publication of final rule] and each year thereafter on the anniversary of [date 5 years after the date of publication of final rule], the owner or operator shall evaluate production data for the preceding consecutive five-year period to determine if the primary product for the process unit is an amino/phenolic resin.

(ii) If a process unit meets the criteria of paragraph (f)(4)(i) of this section, the owner or operator shall notify the Administrator within 6 months of making this determination. The APPU, as the entire affected source or part of an affected source, shall be in compliance with the provisions of this subpart within 3 years from the date of such notification.

(5) Once the primary product of a process unit has been determined to be an amino/phenolic resin and if the process unit is an affected source or is part of an affected source as defined in paragraph (a) of this section, the owner or operator of the affected source shall comply with the provisions of this subpart. Owners or operators of flexible operation units shall comply with this subpart regardless of what product is being manufactured, except as specified in paragraph (f)(5)(iii) of this section. Owners or operators shall comply with the provisions of this subpart for continuous process vents, storage vessels, and emission points associated with wastewater as specified in either paragraph (f)(5)(i) or (f)(5)(ii) of this section. Owners or operators shall comply with the provisions of this subpart for reactor or non-reactor batch process vents at all time, regardless of what product is being produced.

(i) Each owner or operator shall determine the group status of each emission point that is part of said flexible operation unit based on emission point characteristics when the primary product is being manufactured. Based on this finding of group status, the owner or operator shall comply with this subpart for each emission point, as appropriate, at all times, regardless of what product is being produced.

(ii) Alternatively, each owner or operator shall comply with this subpart for individual emission points based on determinations of the group status of each emission point made when each product produced by the flexible operation unit is manufactured, regardless of whether said product is an amino/phenolic resin or not. (**Note:** Under this scenario it is possible that the group status, and therefore the requirement to achieve emission reductions, for an emission point may change depending on the product being produced.)

(iii) Whenever a flexible operation unit manufactures a product in a way that meets the criteria of paragraph (b) of this section (i.e., does not use or manufacture any organic HAP), the owner or operator is only required to comply with either paragraph (b)(1) or (b)(2) of this section to demonstrate compliance for activities associated with the manufacture of said product. This subpart does not require compliance with the provisions of subpart A of this part for activities associated with the manufacture of a product that meets the criteria of paragraph (b) of this section.

(6) The determination of the primary product for a process unit, to include the determination of applicability of this subpart to process units that are designed and operated as flexible operation units, shall be reported in the Notification of Compliance Status required by § 63.1419(e)(5) when the primary product is determined to be an amino/phenolic resin. The Notification

of Compliance Status shall include the information specified in either paragraph (f)(6)(i) or (f)(6)(ii) of this section. If the primary product is determined to be something other than an amino/phenolic resin, the owner or operator shall either retain all information, data, and analyses used to document the basis for the determination that the primary product is not an amino/phenolic resin, or, when requested by the Administrator, demonstrate that the primary product for the process unit is something other than an amino/phenolic resin.

(i) If the APPU manufactures only an amino/phenolic resin, a statement of this fact.

(ii) If the APPU is designed and operated as a flexible operation unit, the information specified in paragraphs (f)(6)(ii)(A) through (f)(6)(ii)(C) of this section, as appropriate.

(A) Statement that amino/phenolic resin is the primary product.

(B) Information concerning operating time and/or production mass for each product that was used to make the determination of the primary product under paragraph (f)(2)(i) or (f)(2)(ii) of this section.

(C) Identification of which compliance option specified in paragraphs (f)(5)(i) and (f)(5)(ii) of this section has been selected by the owner or operator for continuous process vents, storage vessels, and emission points associated with wastewater.

(7) To demonstrate compliance with this subpart during those periods when an APPU operated as a flexible operation unit is producing a product that is not an amino/phenolic resin, the owner or operator shall comply with either paragraphs (f)(7)(i) through (f)(7)(ii) or paragraph (f)(7)(iii) of this section.

(i) Establish parameter monitoring levels, as specified in § 63.1418, for those emission points designated as Group 1 and for reactor and non-reactor batch process vents, as appropriate.

(ii) Submit the parameter monitoring levels developed under paragraph (f)(7)(i) of this section and the basis for them in the Notification of Compliance Status report as specified in § 63.1419(e)(5).

(iii) Demonstrate that the parameter monitoring levels established for the amino/phenolic resin are also appropriate for those periods when products other than the amino/phenolic resin are being produced. Material demonstrating this finding shall be submitted in the Notification of Compliance Status report as specified in § 63.1419(e)(5).

(g) *Storage vessel ownership determination.* The owner or operator shall follow the procedures specified in paragraphs (g)(1) through (g)(7) of this section to determine to which process unit a storage vessel shall be assigned. Paragraph (g)(8) of this section specifies when an owner or operator is required to redetermine to which process unit a storage vessel is assigned.

(1) If a storage vessel is already subject to another subpart of this part 63 on [date of publication of final rule], said storage vessel shall be assigned to the process unit subject to the other subpart.

(2) If a storage vessel is dedicated to a single process unit, the storage vessel shall be assigned to that process unit.

(3) If a storage vessel is shared among process units, then the storage vessel shall be assigned to that process unit located on the same plant site as the storage vessel that has the greatest input into or output from the storage vessel (i.e., said process unit has the predominant use of the storage vessel).

(4) If predominant use cannot be determined for a storage vessel that is shared among process units and if one or more of those process units is an APPU subject to this subpart, the storage vessel shall be assigned to any of the said APPU.

(5) [Reserved]

(6) If the predominant use of a storage vessel varies from year to year, then predominant use shall be determined based on the utilization that occurred during the year preceding [date of publication of final rule] or based on the expected utilization for the 5 years following [date of publication of final rule] for existing affected sources and based on the expected utilization for the first 5 years after initial start-up for new affected sources. The determination of predominant use shall be reported in the Notification of Compliance Status, as required by § 63.1335(e)(5)(vi).

(7) Where a storage vessel is located at a major source that includes one or more process units which place material into, or receive materials from the storage vessel, but the storage vessel is located in a tank farm (including a marine tank farm), the applicability of this subpart shall be determined according to the provisions in paragraphs (g)(7)(i) through (g)(7)(iv) of this section.

(i) The storage vessel may only be assigned to a process unit that utilizes the storage vessel and does not have an intervening storage vessel for that product (or raw material, as appropriate). With respect to any process unit, an intervening storage vessel means a storage vessel connected by hard-piping both to the process unit and to the storage vessel in the tank farm so that product or raw material entering or leaving the process unit flows into (or from) the intervening storage vessel and does not flow directly into (or from) the storage vessel in the tank farm.

(ii) If there is no process unit at the major source that meets the criteria of paragraph (g)(7)(i) of this section with respect to a storage vessel, this subpart does not apply to the storage vessel.

(iii) If there is only one process unit at the major source that meets the criteria of paragraph (g)(7)(i) of this section with respect to a storage vessel, the storage vessel shall be assigned to that process unit.

(iv) If there are two or more process units at the major source that meet the criteria of paragraph (g)(7)(i) of this section with respect to a storage vessel, the storage vessel shall be assigned to one of those process units according to the provisions of paragraphs (g)(3) through (g)(6) of this section. The predominant use shall be determined among only those process units that meet the criteria of paragraph (g)(7)(i) of this section.

(8) If the storage vessel begins receiving material from (or sending material to) a process unit that was not included in the initial determination, or ceases to receive material from (or send material to) a process unit, the owner or operator shall reevaluate the applicability of this subpart to the storage vessel.

(h) [Reserved]

(i) *Changes or additions to plant sites.* The provisions of paragraphs (i)(1) through (i)(3) of this section apply to owners or operators that change or add to their plant site or affected source. Paragraph (i)(4) of this section provides examples of what are and are not considered process changes for purposes of this paragraph (i). Paragraph (i)(5) of this section discusses reporting requirements.

(1) *Adding an APPU to a plant site.* The provisions of paragraphs (i)(1)(i) through (i)(1)(ii) of this section apply to owners or operators that add APPUs to a plant site.

(i) If an APPU is added to a plant site, said addition shall be a new affected source and shall be subject to the requirements for a new affected source in this subpart upon initial start-up or by [date of publication of final rule], whichever is later, if said addition meets the criteria specified in paragraphs (i)(1)(i)(A) through (i)(1)(i)(C) of this section:

(A) Said addition meets the definition of construction in § 63.2;

(B) Such construction commenced after December 14, 1998; and

(C) Said addition has the potential to emit 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAP.

(ii) If an APPU is added to a plant site, said addition shall be subject to the requirements for an existing affected source in this subpart upon initial start-up or by [date 3 years after date of publication of final rule], whichever is later, if said addition does not meet the criteria specified in paragraph (i)(1)(i) of this section and the plant site meets, or after the addition is completed will meet, the definition of major source.

(2) *Adding emission points or making process changes to existing affected sources.* The provisions of paragraphs (i)(2)(i) through (i)(2)(ii) of this section apply to owners or operators that add emission points or make process changes to an existing affected source.

(i) If any process change or addition is made to an existing affected source and said process change or addition meets the criteria specified in paragraphs (i)(2)(i)(A) through (i)(2)(i)(B) of this section, said affected source shall be a new affected source and shall be subject to the requirements for a new affected source in this subpart upon initial start-up or by [date of publication of final rule], whichever is later.

(A) Said process change or addition meets the definition of reconstruction in § 63.2; and

(B) Such reconstruction commenced after December 14, 1998.

(ii) If any process change is made that results in one or more Group 1 emission points (i.e., either newly created Group 1 emission points or emission points that change group status from Group 2 to Group 1) or if any other emission point(s) is added to an existing affected source (i.e., Group 2 emission point(s), batch process vent(s), or equipment leak components subject to § 63.1415) and said process change or addition does not meet the criteria specified in paragraphs (i)(2)(i)(A) through (i)(2)(i)(B) of this section, the resulting emission point(s) shall be subject to the requirements for an existing affected source in this subpart. Said emission point(s) shall be in compliance upon initial start-up or by the compliance date specified in § 63.1401, whichever is later.

(3) [Reserved.]

(4) *Determining what are and are not process changes.* For purposes of this paragraph (i), examples of process changes include, but are not limited to, changes in feedstock type, or catalyst type, or whenever there is a replacement, removal, or the addition of recovery equipment, or changes that increase production capacity. For purposes of this paragraph (i), process changes do not include: process upsets, unintentional temporary process changes, and changes that are within the equipment configuration and operating conditions documented in the Notification of Compliance Status report required by § 63.1335(e)(5).

(5) *Reporting requirements for owners or operators that change or add to their plant site or affected source.* Owners or operators that change or add to their plant site or affected source, as discussed in paragraphs (i)(1) and (i)(2) of this section, shall submit a report as specified in § 63.1419(e)(7)(iv).

(j) *Applicability of this subpart during periods of start-up, shutdown, malfunction, or non-operation.* Paragraphs (j)(1) through (j)(4) of this section shall be followed during periods of start-up, shutdown, malfunction, or non-operation of the affected source or any part thereof.

(1) The provisions set forth in this subpart and the provisions referred to in this subpart shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. The emission limitations of this subpart shall not apply during periods of start-up, shutdown, or malfunction. However, if a start-up, shutdown, malfunction, or period of non-operation of one portion of an affected source does not affect the ability of a particular emission point to comply with the specific provisions to which it is subject, then that emission point shall still be required to comply with the applicable provisions of this subpart during the start-up, shutdown, malfunction, or period of non-operation. For example, if there is an overpressure in the reactor area, a storage vessel that is part of the affected source would still be required to be controlled in accordance with § 63.1404.

(2) The provisions set forth in subpart H of this part 63, as referred to in § 63.1415, shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which § 63.1415 applies, or during periods of start-up, shutdown, malfunction, or process unit shutdown. During periods of start-up, shutdown, malfunction, or process unit shutdown, the owner or operator shall follow the applicable provisions of the start-up, shutdown, and malfunction plan required by § 63.6(e)(3).

(3) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with this subpart during periods of start-up, shutdown, or malfunction; or during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment, if the shutdown would contravene requirements of this subpart applicable to such items of equipment. This paragraph (j)(3) does not apply if the item of equipment is malfunctioning. This paragraph (j)(3) also does not apply if the owner or operator shuts down the compliance equipment (other than monitoring systems) to avoid damage due to a contemporaneous start-up, shutdown, or malfunction of the affected source or portion thereof. If the owner or operator has reason to believe that monitoring equipment would be damaged due to a contemporaneous start-up, shutdown, or malfunction of the affected source or portion thereof, the owner or operator shall provide documentation supporting such a claim in the operating permit application (or, where applicable, an application for revision of the operating permit) for that affected source. The permitting authority shall evaluate the supporting documentation and, in the operating permit, may provide for that equipment to be shut down during periods of start-up, shutdown, or malfunction only if such equipment would be damaged by the contemporaneous start-up, shutdown, or malfunction, in the permitting authority's judgement, based on the information submitted.

(4) During start-ups, shutdowns, and when the requirements of this subpart do not apply pursuant to paragraphs (j)(1) through (j)(3) of this section, the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the extent practical. For purposes of this paragraph, the term ''excess emissions'' means emissions in excess of those that would have occurred if there were no start-up, shutdown, or malfunction and the owner or operator complied with the relevant provisions of this subpart. The measures to be taken shall be identified in the applicable start-up, shutdown, and malfunction plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available.

§ 63.1401 Compliance schedule and relationship to existing applicable rules.

(a) Affected sources are required to achieve compliance on or before the dates specified in paragraphs (b) through (c) of this section. Paragraph (e) of this section provides information on requesting compliance extensions. Paragraphs (f) through (l) of this section discuss the relationship of this subpart to subpart A of this part and to other applicable rules. Where an override of another authority of the Act is indicated in this subpart, only compliance with the provisions of this subpart is required. Paragraph (m) of this section specifies the meaning of time periods.

(b) New affected sources that commence construction or reconstruction after December 14, 1998 shall be in compliance with this subpart upon initial start-up or [date of publication of final rule], whichever is later, as provided in § 63.6(b).

(c) Existing affected sources shall be in compliance with this subpart no later than 3 years after [date of publication of final rule], as provided in § 63.6(c), unless an extension has been granted as specified in paragraph (e) of this section.

(d) [Reserved.]

(e) Pursuant to Section 112(i)(3)(B) of the Act, an owner or operator may request an extension allowing the existing affected source up to 1 additional year to comply with Section 112(d) standards. For purposes of this subpart, a request for an extension shall be submitted to the permitting authority as part of the operating permit application or to the Administrator as a separate submittal or as part of the Precompliance Report. Requests for extensions shall be submitted no later than 120 days prior to the compliance dates specified in paragraphs (b) through (d) of this section, except as provided in paragraph (e)(3) of this section. The dates specified in § 63.6(i) for submittal of requests for extensions shall not apply to this subpart.

(1) A request for an extension of compliance shall include the data described in § 63.6(i)(6)(i)(A), (B), and (D).

(2) The requirements in § 63.6(i)(8) through (i)(14) shall govern the review and approval of requests for extensions of compliance with this subpart.

(3) An owner or operator may submit a compliance extension request after the date specified in paragraph (e) of this section, provided that the need for the compliance extension arose after that date, and the need arose due to circumstances beyond reasonable control of the owner or operator. This request shall include, in addition to the information specified in paragraph (e)(1) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the circumstances necessitating a request for compliance extension under this paragraph (e)(3).

(f) Table 1 of this subpart specifies the provisions of subpart A of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart.

(g) After the compliance dates specified in this section, a storage vessel that is assigned to an affected source subject to this subpart that is also subject to and complying with the provisions of 40 CFR part 60, subpart Kb, shall continue to comply with 40 CFR part 60, subpart Kb. After the compliance dates specified in this section, a storage vessel that is assigned to an affected source subject to this subpart that is also subject to the provisions of 40 CFR part 60, subpart Kb, but the owner or operator has not been required to apply controls as part of complying with 40 CFR part 60, subpart Kb, is required to comply only with the provisions of this subpart. After the compliance dates specified in this section, said storage vessel shall no longer be subject to 40 CFR part 60, subpart Kb.

(h) Affected sources subject to this subpart that are also subject to the provisions of subpart Q of this part shall comply with both subparts.

(i) After the compliance dates specified in this section, an affected source subject to this subpart that is also subject to the provisions of 40 CFR part 60, subpart VV, or the provisions of subpart H of this part 63, is required to comply only with the provisions of this subpart. After the compliance dates specified in this section, said source shall no longer be subject to 40 CFR part 60, subpart VV, or subpart H of this part 63, as appropriate.

(j) [Reserved.]

(k) [Reserved.]

(l) *Overlap with other regulations for monitoring, recordkeeping or reporting with respect to combustion devices, recovery devices, or recapture devices.* After the compliance dates specified in this subpart, if any combustion device, recovery device or recapture device subject to this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subpart AA, BB, or CC, or is subject to monitoring and recordkeeping requirements in 40 CFR part 265, subpart AA, BB, or CC, and the owner or operator complies with the periodic reporting requirements under 40 CFR part 264, subpart AA, BB, or CC, that would apply to the device if the facility had final-permitted status, the owner or operator may elect to comply either with the monitoring, recordkeeping and reporting requirements of this subpart, or with the monitoring, recordkeeping and reporting requirements in 40 CFR parts 264 and/or 265, as described in this paragraph (l), which shall constitute compliance with the monitoring, recordkeeping and reporting requirements of this subpart. If the owner or operator elects to comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, the owner or operator shall report all information required by § 63.1419(e)(6). The owner or operator shall identify which option has been selected in the Notification of Compliance Status required by § 63.1419(e)(5).

(m) All terms in this subpart that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual), unless specified otherwise, refer to the standard calendar periods.

(1) Notwithstanding time periods specified in this subpart for completion of required tasks, such time periods may be changed by mutual agreement between the owner or operator and the Administrator, as specified in subpart A of this part 63 (e.g., a period could begin on the compliance date or another date, rather than on the first day of the standard calendar period). For each time period that is changed by agreement, the revised period shall remain in effect until it is changed. A new request is not necessary for each recurring period.

(2) Where the period specified for compliance is a standard calendar period, if the initial compliance date occurs after the beginning of the period, compliance shall be required according to the schedule specified in paragraph (m)(2)(i) or (m)(2)(ii) of this section, as appropriate:

(i) Compliance shall be required before the end of the standard calendar period within which the compliance deadline occurs, if there remain at least 3 days for tasks that must be performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually; or (ii) In all other cases, compliance shall be required before the end of the first full standard calendar period after the period within which the initial compliance deadline occurs.

(3) In all instances where a provision of this subpart requires completion of a task during each of multiple successive periods, an owner or operator may

perform the required task at any time during the specified period, provided that the task is conducted at a reasonable interval after completion of the task during the previous period.

§ 63.1402 Definitions.

(a) The following terms used in this subpart shall have the meaning given them in §§ 63.2, 63.101, 63.111, and 63.161 as specified after each term:

Act (§ 63.2)
Administrator (§ 63.2)
Annual average concentration (§ 63.111)
Annual average flow rate (§ 63.111)
Automated monitoring and recording system (§ 63.111)
Boiler (§ 63.111)
Bottoms receiver (§ 63.161)
By compound (§ 63.111)
By-product (§ 63.101)
Car-seal (§ 63.111)
Closed-vent system (§ 63.111)
Combustion device (§ 63.111)
Commenced (§ 63.2)
Compliance date (§ 63.2)
Connector (§ 63.161)
Construction (§ 63.2)
Continuous monitoring system (§ 63.2)
Distillation unit (§ 63.111)
Duct work (§ 63.161)
Emission standard (§ 63.2)
EPA (§ 63.2)
External floating roof (§ 63.111)
First attempt at repair (§ 63.111)
Flame zone (§ 63.111)
Floating roof (§ 63.111)
Flow indicator (§ 63.111)
Fuel gas (§ 63.101)
Fuel gas system (§ 63.101)
Hard-piping (§ 63.111)
Hazardous air pollutant (§ 63.2)
Impurity (§ 63.101)
In organic hazardous air pollutant service (§ 63.161)
Incinerator (§ 63.111)
Instrumentation system (§ 63.161)
Internal floating roof (§ 63.111)
Lesser quantity (§ 63.2)
Major source (§ 63.2)
Malfunction (§ 63.2)
Open-ended valve or line (§ 63.161)
Operating permit (§ 63.101)
Organic monitoring device (§ 63.111)
Owner or operator (§ 63.2)
Performance evaluation (§ 63.2)
Performance test (§ 63.2)
Permitting authority (§ 63.2)
Plant site (§ 63.101)
Potential to emit (§ 63.2)
Primary fuel (§ 63.111)
Process heater (§ 63.111)
Process unit shutdown (§ 63.161)
Process wastewater (§ 63.101)
Process wastewater stream (§ 63.111)
Reactor (§ 63.111)
Recapture device (§ 63.101)
Reconstruction (§ 63.2)
Routed to a process or route to a process (§ 63.161)
Run (§ 63.2)
Secondary fuel (§ 63.111)
Sensor (§ 63.161)
Specific gravity monitoring device (§ 63.111)
Start-up, shutdown, and malfunction plan (§ 63.101)
State (§ 63.2)
Surge control vessel (§ 63.161)
Temperature monitoring device (§ 63.111)
Test method (§ 63.2)
Total resource effectiveness (TRE) index value (§ 63.111)
Treatment process (§ 63.111)
Unit operation (§ 63.101)
Visible emission (§ 63.2)

(b) All other terms used in this subpart shall have the meaning given them in this section. If a term is defined in § 63.2, § 63.101, § 63.111, or § 63.161 and in this section, it shall have the meaning given in this section for purposes of this subpart.

Air pollution control device or Control device means equipment installed on a process vent, storage tank, wastewater treatment exhaust stack, or combination thereof that reduces the mass of HAP emitted to the air. The equipment may consist of an individual device or a series of devices. Examples include, but are not limited to, incinerators, carbon adsorption units, condensers, flares, boilers, process heaters, and gas absorbers. Process condensers are not considered air pollution control devices or control devices.

Affected source is defined in § 63.1400(a).

Amino resin means a resin produced through the reaction of formaldehyde, or a formaldehyde containing solution (e.g., aqueous formaldehyde), with compound(s) that contain the amino group; these compounds include melamine, urea, and urea derivatives.

Amino/phenolic resin means one or both of the following types of products:

(1) Amino resin; or

(2) Phenolic resin.

Amino/phenolic resin process unit (APPU) means a collection of equipment assembled and connected by hard-piping or ductwork used to process raw materials and to manufacture an amino/phenolic resin as its primary product. This collection of equipment includes process vents from process vessels; equipment identified in § 63.149; storage vessels, as determined in § 63.1400(g); and the equipment that is subject to the equipment leak provisions as specified in § 63.1415. Utilities, lines and equipment not containing process fluids, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not part of the amino/phenolic resin process unit. An amino/phenolic resin process unit consists of more than one unit operation.

Batch cycle means the operational step or steps, from start to finish, that occur as part of a batch unit operation.

Batch emission episode means a discrete emission venting episode associated with a single batch unit operation. Multiple batch emission episodes may occur from a single batch unit operation.

Batch mode means the discontinuous bulk movement of material through a unit operation. Mass, temperature, concentration, and other properties may vary with time. For a unit operation operated in a batch mode (i.e., batch unit operation), the addition of material and withdrawal of material do not typically occur simultaneously.

Batch process vent means a process vent from a batch unit operation within an affected source. Batch process vents are either reactor batch process vents or non-reactor batch process vents.

Batch unit operation means a unit operation operated in a batch mode.

Block means the time period that comprises a single batch cycle.

Continuous mode means the continuous movement of material through a unit operation. Mass, temperature, concentration, and other properties typically approach steady-state conditions. For a unit operation operated in a continuous mode (i.e., continuous unit operation), the simultaneous addition of raw material and withdrawal of product is typical.

Continuous process vent means a process vent from a continuous unit operation within an affected source. The total organic HAP weight percent is determined after the last recovery device, as described in § 63.115(a), and is determined as specified in § 63.115(c). Process vents that are serving as control devices are not subject to additional control requirements.

Continuous record means documentation, either in hard copy or computer readable form, of data values measured at least once every 15 minutes and recorded at the frequency specified in § 63.1419(d) or § 63.1419(h).

Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 1-hour or more frequent block average values.

Continuous unit operation means a unit operation operated in a continuous mode.

Controlled HAP emissions means the quantity of HAP discharged to the atmosphere from an air pollution control device.

Emission point means an individual continuous process vent, batch process vent, storage vessel, waste management unit, equipment leak, heat exchange system, or equipment subject to § 63.149.

Equipment means, for the purposes of the provisions in § 63.1415 and the requirements in subpart H of this part that are referred to in § 63.1415, each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic hazardous air pollutant service; and any control devices or systems required by subpart H of this part. For purposes of this subpart, surge control vessels and bottom receivers are not equipment for purposes of regulating equipment leak emissions. Surge control vessels and bottoms receivers are regulated as non-reactor batch process vents, for the purposes of this subpart.

Equipment leak is defined in § 63.101, except that surge control vessels and bottoms receivers are not sources of equipment leak emissions for purposes of this subpart.

Existing affected source is defined in § 63.1400(a)(3).

Flexible operation unit means a process unit that manufactures different chemical products, polymers, or resins periodically by alternating raw materials or operating conditions. These units are also referred to as campaign plants or blocked operations.

Group 1 continuous process vent means a continuous process vent from a new affected source releasing a gaseous emission stream that has a total resource effectiveness index value, calculated according to the procedures in § 63.115 as qualified by § 63.1405(e), less than or equal to 1.2.

Group 1 storage vessel means a storage vessel at a new or existing affected source that meets the applicability criteria specified in Table 2 of this subpart.

Group 1 wastewater stream means a wastewater stream consisting of process wastewater from a new affected source that meets the criteria for Group 1 status in § 63.132(c) and/or that meets the criteria for Group 1 status in § 63.132(d), with the exceptions listed in § 63.1414(h) for the purposes of this subpart (i.e., for organic HAP listed on Table 3 of this subpart that are also listed on Table 9 and Table 8 of subpart G of this part 63, as indicated on Table 3 of this subpart, as appropriate).

Group 2 continuous process vent means a continuous process vent that does not fall within the definition of a Group 1 continuous process vent.

Group 2 storage vessel means a storage vessel that does not fall within the definition of a Group 1 storage vessel.

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

Heat exchange system means any cooling tower system or once-through cooling water system (e.g., river or pond water) designed and intended to operate to not allow contact between the cooling medium and process fluid or gases (i.e., a noncontact system). A heat exchange system can include more than one heat exchanger and can include recirculating or once-through cooling systems.

Highest-HAP recipe for a product means the recipe of the product with the highest total mass of HAP charged to the reactor during the production of a single batch of product.

Initial start-up means the first time a new or reconstructed affected source begins production, or, for equipment added or changed as described in § 63.1400(i), the first time the equipment is put into operation. Initial start-up does not include operation solely for testing equipment. Initial start-up does not include subsequent start-ups of an affected source or portion thereof following malfunctions or shutdowns or following changes in product for flexible operation units or following recharging of equipment in batch operation. Further, for purposes of § 63.1401 and § 63.1415, initial start-up does not include subsequent start-ups of affected sources or portions thereof following malfunctions or process unit shutdowns.

Large control device means a control device that controls emission points with total emissions of 10 tons of HAP per year or more before control.

Maintenance wastewater is defined in § 63.101, except that the term ''amino/phenolic resin process unit'' shall apply wherever the term ''chemical manufacturing process unit'' is used. Further, the generation of wastewater from the routine rinsing or washing of equipment in batch operation between batches is not maintenance wastewater for the purposes of this subpart.

Maximum representative operating conditions means, for purposes of testing or measurements required by § 63.1417, those conditions which reflect the highest HAP emissions reasonably expected to be vented to the control device or emitted to the atmosphere. For affected sources that produce the same product(s) using multiple recipes, the production of the highest-HAP recipe is reflective of maximum representative operating conditions.

Maximum true vapor pressure is defined in § 63.111, except that the terms ''transfer'' or ''transferred'' shall not apply for purposes of this subpart.

Multicomponent system means, as used in conjunction with batch process vents, a stream whose liquid and/or vapor contains more than one compound.

Net positive heating value means the difference between the heat value of the recovered chemical stream and the minimum heat value required to ensure a stable flame in the combustion device. This difference must have a positive value when used in the context of ''recovering chemicals for fuel value'' (e.g., in the definition of ''recovery device'' in this section).

New affected source is defined in § 63.1400(a)(4).

Non-reactor batch process vent means a batch process vent originating from a unit operation other than a reactor. Non-reactor batch process vents include, but are not limited to, batch process vents from filter presses, surge control vessels, bottoms receivers, weigh tanks, and distillation systems.

On-site or *On site* means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source or APPU to which the records pertain, or storage in central files elsewhere at the major source.

Operating day means the period defined by the owner or operator in the Notification of Compliance Status required by § 63.1419(e)(5). The operating day is the period for which daily average monitoring values and batch cycle daily average monitoring values are determined.

Organic hazardous air pollutant(s) (organic HAP) means one or more of the chemicals listed in Table 3 of this subpart or any other chemical which is:

(1) Knowingly produced or introduced into the manufacturing process other than as an impurity; and

(2) Listed in Table 2 of subpart F of this part.

Phenolic resin means a resin that is a condensation product of formaldehyde and phenol, or a formaldehyde substitute and/or a phenol substitute. Substitutes for formaldehyde include acetaldehyde or furfuraldehyde. Substitutes for phenol include other phenolic starting compounds such as cresols, xylenols, p-tert-butylphenol, p-phenylphenol, and nonylphenol.

Primary product is defined in and determined by the procedures specified in § 63.1400(f). For the purposes of the procedures in § 63.1400(f), amino resins and phenolic resins shall be considered to be the same product.

Process condenser means a condenser whose primary purpose is to recover material as an integral part of a unit operation(s). The condenser must support a vapor-to-liquid phase change for periods of equipment operation that are at or above the boiling or bubble point of substance(s) at the liquid surface. Examples of process condensers include distillation condensers, reflux condensers, and condensers used in stripping or flashing operations. In a series of condensers, all condensers up to and including the first condenser with an exit gas temperature below the boiling or bubble point of the substance(s) at the liquid surface are considered to be process condensers. All condensers in line prior to a vacuum source are included in this definition.

Process unit means a collection of equipment assembled and connected by hardpiping or ductwork, used to process raw materials and to manufacture a product.

Process vent means a gaseous emission stream from a unit operation where the gaseous emission stream is discharged to the atmosphere either directly or after passing through one or more control, recovery, or recapture devices. Unit operations that may have process vents are condensers, distillation units, reactors, or other unit operations within the APPU. Emission streams that are undiluted and uncontrolled containing less than 20 ppmv organic HAP, as determined through process knowledge that no organic HAP are present in the emission stream or using an engineering assessment as discussed in § 63.1417(e)(3)(vi); test data using the test methods specified in § 63.1417(b); or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part, are not considered process vents. Process vents exclude relief valve discharges, gaseous streams routed to a fuel gas system(s), and leaks from equipment regulated under § 63.1415. Process vents that are serving as control devices are not subject to additional control requirements.

Product means a resin, produced using the same monomers and varying in additives (e.g., initiators, terminators, etc.); catalysts; or in the relative proportions of monomers, that is manufactured by a process unit. With respect to resins, more than one recipe may be used to produce the same product. Product also means a chemical that is not a polymer, that is manufactured by a process unit. By-products, isolated intermediates, impurities, wastes, and trace contaminants are not considered products.

Reactor batch process vent means a batch process vent originating from a reactor.

Recipe means a specific composition, from among the range of possible compositions that may occur within a product, as defined in this section. A recipe is determined by the proportions of monomers and, if present, other reactants and additives that are used to make the recipe. For example, a methylated amino resin and a non-methylated amino resin are both different recipes of the same product, amino resin.

Recovery device means an individual unit of equipment capable of and normally used for the purpose of recovering chemicals for use; reuse; fuel value (i.e., net heating value); or for sale for use, reuse, or fuel value (i.e., net heating value). Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. For the purposes of the monitoring, recordkeeping, or reporting requirements of this subpart, recapture devices are considered recovery devices.

Research and development facility means any stationary source whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel, and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Residual is defined in § 63.111, except that when the definition in § 63.111 uses the term ''Table 9 compounds,'' the term ''organic HAP listed on Table 3 of this subpart that are also listed on Table 9 of subpart G of this part, as indicated on Table 3 of this subpart'' shall apply for purposes of 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 unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in 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.

Shutdown means for purposes including, but not limited to, periodic maintenance, replacement of equipment, or repair, the cessation of operation of an affected source, an APPU(s) within an affected source, a waste management unit or unit operation within an affected source, or equipment required or used to comply with this subpart, or the emptying or degassing of a storage vessel. For purposes of the wastewater provisions of § 63.1414, shutdown does not include the routine rinsing or washing of equipment in batch operation between batches. For purposes of the batch process vent provisions in §§ 63.1406 and 63.1407, the cessation of equipment in batch operation is not a shutdown, unless the equipment undergoes maintenance, is replaced, or is repaired.

Small control device means a control device that controls emission points with total emissions less than 10 tons of HAP per year before control.

Start-up means the setting into operation of an affected source, an APPU(s) within an affected source, a waste management unit or unit operation within an affected source, or equipment required or used to comply with this subpart, or a storage vessel after emptying and degassing. For both continuous and batch unit operations, start-up includes initial start-up and operation solely for testing equipment. For both continuous and batch unit operations, start-up does not include the recharging of equipment in batch operation. For continuous unit operations, start-up includes transitional conditions due to changes in product for flexible operation units. For batch unit operations, start-up does not include transitional conditions due to changes in product for flexible operation units.

Steady-state conditions means that all variables (temperatures, pressures, volumes, flow rates, etc.) in a process do not vary significantly with time; minor

fluctuations about constant mean values may occur.

Storage vessel means a tank or other vessel that is used to store liquids that contain one or more organic HAP. Storage vessels do not include:

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

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

(3) vessels with capacities smaller than 38 cubic meters;

(4) vessels and equipment storing and/or handling material that contains no organic HAP and/or organic HAP as impurities only;

(5) wastewater storage tanks;

(6) surge control vessels or bottoms receivers; and

(7) vessels and equipment storing and/or handling amino/phenolic resin.

Uncontrolled HAP emissions means a gaseous vent stream containing HAP which has exited the unit operation (or process condenser, if any), but which has not yet been introduced into an air pollution control device to reduce the mass of HAP in the vent stream. If the gaseous vent stream is not routed to an air pollution control device, uncontrolled emissions are those HAP emissions released to the atmosphere.

Vent stream, as used in reference to batch process vents, continuous process vents, storage vessels, waste management units, and in-process equipment subject to § 63.149, means the emissions from that emission point.

Waste management unit is defined in § 63.111, except that where the definition in § 63.111 uses the term ''chemical manufacturing process unit,'' the term ''APPU'' shall apply for purposes of this subpart.

Wastewater is either a process wastewater or maintenance wastewater and means water that:

(1) Contains either:

(i) An annual average concentration of organic HAP listed on Table 3 of this subpart that are also listed on Table 9 of subpart G of this part 63, as indicated on Table 3 of this subpart, of at least 5 parts per million by weight and has an annual average flow rate of 0.02 liter per minute or greater; or

(ii) An annual average concentration of organic HAP listed on Table 3 of this subpart that are also listed on Table 9 of subpart G of this part 63, as indicated on Table 3 of this subpart, of at least 10,000 parts per million by weight at any flow rate, and that;

(2) Is discarded from an APPU that is part of an affected source.

Wastewater stream means a stream that contains wastewater as defined in this section.

§ 63.1403 Emission standards.

Each owner or operator of an affected source subject to the provisions of this subpart shall control organic HAP emissions as specified in this subpart on and after the compliance dates specified in this section. Compliance with the emissions limits is demonstrated initially through the provisions of § 63.1417 (Test methods and compliance procedures) and continuously through the provisions of § 63.1418 (Monitoring requirements).

(a) Except as allowed under paragraph (b) of this section, the owner or operator of an affected source shall comply with the provisions in paragraphs (a)(1) through (a)(9) of this section, as appropriate. (**Note:** Sections 63.1410 through 63.1412 and § 63.1416 are reserved.):

(1) Section 63.1404 for storage vessels for new affected sources;

(2) Section 63.1405 for continuous process vents for new affected sources;

(3) Sections 63.1406 through 63.1409 for batch process vents for existing and new affected sources;

(4) Section 63.1413 for heat exchange systems for existing and new affected sources;

(5) Section 63.1414 for wastewater for new affected sources;

(6) Section 63.1415 for equipment leaks for existing and new affected sources, except as specified in paragraph (c) of this section;

(7) Section 63.1417 for test methods and compliance procedures;

(8) Section 63.1418 for monitoring requirements; and

(9) Section 63.1419 for general recordkeeping and reporting requirements.

(b) When emissions of different kinds (i.e., emissions from continuous process vents, batch process vents, storage vessels, process wastewater, and/or in-process equipment subject to § 63.149) are combined, and at least one of the vent streams would be required by this subpart to apply controls in the absence of combination with other vent streams, the owner or operator shall comply with the requirements of either paragraph (b)(1) or (b)(2) of this section, as appropriate. For purposes of this paragraph (b), combined vent streams containing one or more batch process vents and containing one or more continuous process vents for which control is required by the provisions of § 63.1405 may comply with either paragraph (b)(1) or (b)(2) of this section, as appropriate. For purposes of this paragraph (b), the owner or operator of an affected source with combined vent streams containing one or more batch process vents but not containing one or more continuous process vents for which control is required by the provisions of § 63.1405 shall comply with paragraph (b)(3) of this section:

(1) Comply with the applicable requirements of this subpart for each kind of emission point in the vent stream as specified in paragraphs (a)(1) through (a)(5) of this section.

(2) Comply with the first set of requirements identified in paragraphs (b)(2)(i) through (b)(2)(iv) of this section which applies to any individual vent stream that is included in the combined vent stream, where either that vent stream would be required by this subpart to apply controls in the absence of combination with other vent streams, or the owner or operator chooses to apply controls according to the provisions of this subpart appropriate to that vent stream for purposes of this paragraph. Compliance with the first applicable set of requirements identified in paragraphs (b)(2)(i) through (b)(2)(iv) of this section constitutes compliance with all other requirements in paragraphs (b)(2)(i) through (b)(2)(iv) of this section applicable to other vent streams in the combined vent stream:

(i) The requirements of this subpart for Group 1 continuous process vents subject to § 63.1405, including applicable monitoring, recordkeeping, and reporting;

(ii) The requirements of § 63.139, as specified in § 63.1414, for control devices used to control emissions from waste management units, including applicable monitoring, recordkeeping, and reporting;

(iii) The requirements of § 63.139, as specified in § 63.1414, for closed vent systems for control of emissions from in-process equipment subject to § 63.149, as specified in § 63.1414, including applicable monitoring, recordkeeping, and reporting; or

(iv) The requirements of § 63.119(e), as specified in § 63.1404, for control of emissions from Group 1 storage vessels, including applicable monitoring, recordkeeping, and reporting.

(3) The owner or operator of an affected source with combined vent streams containing one or more batch process vents but not also containing one or more continuous process vents required to apply controls by the provisions of § 63.1405 shall comply with paragraphs (b)(3)(i) and (b)(3)(ii) of this section.

(i) The owner or operator of the affected source shall comply with

§ 63.1406 or § 63.1407, as appropriate, for the batch process vent(s).

(ii) The owner or operator of the affected source shall comply with either paragraph (b)(1) or (b)(2) of this section, as appropriate, for the remaining vent streams.

(c) *Exception from equipment leaks.* Owners or operators of certain affected sources are not required to comply with the equipment leak provisions specified in § 63.1415, as specified in paragraphs (c)(1) through (c)(3) of this section.

(1) Affected sources with actual annual production of amino/phenolic resin equal to or less than 800 megagrams per year for the 12-month period preceeding December 14, 1998 publication of this proposed rule are exempt from the equipment leak provisions specified in § 63.1415, except as specified in paragraph (c)(3) of this section.

(2) Owners or operators using the exemption provided by this paragraph (c) shall comply with the following requirements:

(i) Submit a statement that includes the following information as part of the Notification of Compliance Status required by § 63.1419(e)(5): a statement that the exemption provided by this paragraph (c) is being utilized and a statement of the affected source's actual annual production of amino/phenolic resins for the 12-month period preceeding December 14, 1998.

(ii) Comply with the requirements of either paragraph (c)(2)(ii)(A) or (c)(2)(ii)(B) of this section.

(A) The owner or operator shall retain information, data, and analysis used to document the basis for using the exemption provided by this paragraph (c). Such information, data, and analysis shall be retained for the 12-month period preceeding December 14, 1998 and for each 12-month period the affected source is in operation and using the exemption provided by this paragraph (c). The beginning of each 12-month period shall be the anniversary of December 14, 1998.

(B) When requested by the Administrator, the owner or operator shall demonstrate that actual annual production is equal to or less than 800 megagrams per year of amino/phenolic resin for the 12-month period preceeding December 14, 1998 and for each 12-month period the affected source has been in operation and using the exemption provided by this paragraph (c). The beginning of each 12-month period shall be the anniversary of December 14, 1998.

(3) If an affected source using the exemption provided by this paragraph (c) has an actual annual production of amino/phenolic resins exceeding 800 megagrams per year for any 12-month period that begins on the anniversary of December 14, 1998 starting with the 12-month period following December 14, 1998, the owner or operator shall comply with the provisions of § 63.1415 for the life of the affected source (i.e., regardless of actual annual production thereafter) or until the affected source is no longer subject to the provisions of this subpart.

(d) *Opening of a safety device.* Opening of a safety device, as defined in § 63.1402, is allowed at any time conditions require it to be opened to avoid unsafe conditions.

§ 63.1404 Storage vessel provisions.

(a) For each storage vessel located at an existing or new affected source, the owner or operator shall comply with paragraph (b) of this section. As an alternative to complying with paragraph (b) of this section, an owner or operator may comply with paragraph (c) of this section. The compliance date for storage vessels at affected sources subject to the provisions of this section is specified in § 63.1401.

(b) For each Group 1 storage vessel assigned, according to the procedures in § 63.1400(g), to a new affected source, the owner or operator shall comply with the control requirements specified in paragraph (b)(1) of this section and with the requirements of subpart G of this part specified in paragraphs (b)(3) through (b)(6) of this section, with the differences noted in paragraphs (d)(1) through (d)(14) of this section for the purposes of this subpart, as appropriate. For each Group 1 storage vessel assigned, according to the procedures in § 63.1400(g), to an existing affected source, the owner or operator shall comply with the control requirements specified in paragraph (b)(2) of this section and with the requirements of subpart G of this part specified in paragraphs (b)(3) through (b)(6) of this section, with the differences noted in paragraphs (d)(1) through (d)(14) of this section for the purposes of this subpart, as appropriate:

(1) For storage vessels containing aqueous formaldehyde, reduce emissions of total organic HAP by 50 weight-percent using a closed vent system and control device or, alternatively, comply with § 63.119 G of this part. For storage vessels containing other organic HAP, reduce emissions of total organic HAP by 95 weight-percent using a closed vent system and control device or, alternatively, comply with § 63.119 of subpart G of this part;

(2) Reduce emissions of total organic HAP by 50 weight-percent using a closed vent system and control device or, alternatively, comply with § 63.119 of subpart G of this part;

(3) Section 63.120, Storage vessel provisions—procedures to determine compliance;

(4) Section 63.121, Storage vessel provisions—alternative means of emission limitation;

(5) Section 63.122, Storage vessel provisions—reporting;

(6) Section 63.123, Storage vessel provisions—recordkeeping.

(c) As an alternative standard, the owner or operator of an existing or new affected source may comply with the storage tank standards by routing storage tank vents to a control device achieving an outlet organic HAP concentration of 20 ppmv or less. Compliance with the outlet concentration shall be determined by the initial compliance procedures of § 63.1417(a)(6) and the continuous emission monitoring requirements of § 63.1418(i).

(d) The differences noted in paragraphs (d)(1) through (d)(14) of this section apply to owners or operators complying with certain provisions of subpart G of this part, as specified in paragraph (b) of this section.

(1) When the term ''storage vessel'' is used in §§ 63.119 through 63.123 of subpart G of this part, the definition of this term in § 63.1402 shall apply for the purposes of this subpart.

(2) When the term ''Group 1 storage vessel'' is used in §§ 63.119 through 63.123 of subpart G of this part, the definition of this term in § 63.1402 shall apply for the purposes of this subpart.

(3) When the term ''Group 2 storage vessel'' is used in §§ 63.119 through 63.123, the definition of this term in § 63.1402 shall apply for the purposes of this subpart.

(4) When December 31, 1992, is referred to in § 63.119, December 14, 1998 shall apply instead, for the purposes of this subpart.

(5) When April 22, 1994, is referred to in § 63.119, [publication date of the final rule] shall apply instead, for the purposes of this subpart.

(6) Each owner or operator referred to § 63.120 by paragraph (b) of this section, shall comply with this paragraph (d)(6) instead of § 63.120(d)(1)(ii) for the purposes of this subpart. If the control device used to comply with paragraph (b)(1) of this section is also used to comply with any of the requirements found in § 63.1405, § 63.1406, § 63.1407, or § 63.1414, the performance test required in or accepted by the applicable requirements of § 63.1405, § 63.1414, or § 63.1417 for batch process vents is acceptable for demonstrating

compliance with paragraph (b)(1) of this section for the purposes of this subpart. The owner or operator is not required to prepare a design evaluation for the control device as described in § 63.120(d)(1)(i), if the performance test meets the criteria specified in paragraphs (d)(6)(i) and (d)(6)(ii) of this section.

(i) The performance test demonstrates that the control device achieves greater than or equal to the required control efficiency specified in paragraph (b)(1) of this section; and

(ii) The performance test is submitted as part of the Notification of Compliance Status required by § 63.1419(e)(5).

(7) When the term ''operating range'' is used in § 63.120(d)(3) of subpart G of this part, the term ''level'' shall apply instead, for the purposes of this subpart.

(8) When the determination of equivalence criteria in § 63.102(b) of subpart F of this part is referred to in § 63.121(a) of subpart G of this part, the provisions in § 63.6(g) of subpart A of this part shall apply for the purposes of this subpart.

(9) For purposes of this subpart, the monitoring plan required by § 63.120(d)(2) shall specify for which control devices the owner or operator has elected to follow the procedures for continuous monitoring specified in § 63.1418. For those control devices for which the owner or operator has elected to not follow the procedures for continuous monitoring specified in § 63.1418, the monitoring plan shall include a description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed (e.g., when the liquid level in the storage vessel is being raised), as specified in § 63.120(d)(2)(i).

(10) For purposes of this subpart, the monitoring plan required by § 63.120(d)(2) shall be included in the Notification of Compliance Status required by § 63.1419(e)(5).

(11) When the Notification of Compliance Status requirements contained in § 63.152(b) are referred to in §§ 63.120, 63.122, and 63.123, the Notification of Compliance Status requirements contained in § 63.1419(e)(5) shall apply for the purposes of this subpart.

(12) When the Periodic Report requirements contained in § 63.152(c) are referred to in §§ 63.120, 63.122, and 63.123, the Periodic Report requirements contained in § 63.1419(e)(6) shall apply for the purposes of this subpart.

(13) When other reports as required in § 63.152(d) are referred to in § 63.122, the reporting requirements contained in § 63.1419(e)(7) shall apply for the purposes of this subpart.

(14) When the Initial Notification requirements contained in § 63.151(b) are referred to in § 63.122, the owner or operator of an affected source subject to this subpart need not comply with the Initial Notification requirements contained in § 63.151(b) for the purposes of this subpart.

§ 63.1405 Continuous process vents provisions.

(a) For each continuous process vent located at a new affected source, the owner or operator shall comply with paragraph (b) of this section if the TRE value, as determined following the procedures specified in paragraph (e) of this section, is greater than 1.0 but less than or equal to 1.2. For each continuous process vent located at a new affected source, the owner or operator shall comply with paragraph (c) of this section if the TRE value, as determined following the procedures specified in paragraph (e) of this section, is less than or equal to 1.0. As an alternative to complying with paragraph (b) or (c) of this section, as appropriate, an owner or operator may comply with paragraph (f) of this section. Continuous process vents located at existing affected sources are not subject to the provisions of this section or any requirements of subpart A of this part. The compliance date for continuous process vents subject to the provisions of this section is specified in § 63.1401.

(b) Owners or operators required to comply with this paragraph (b) shall comply with the control requirements specified in paragraph (b)(1) of this section and with the requirements of subpart G of this part specified in paragraphs (b)(2) through (b)(6) of this section, with the differences noted in paragraphs (d)(1) through (d)(14) of this section for the purposes of this subpart, as appropriate:

(1) Reduce emissions of total organic HAP by 85 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. For combustion devices, the emission reduction or concentration shall be calculated on a dry basis, corrected to 3 percent oxygen. As an alternative, an owner or operator shall reduce emissions of organic HAP using a flare;

(2) Section 63.114, Process vent provisions—monitoring requirements;

(3) Section 63.115, Process vent provisions—methods and procedures for process vent group determination;

(4) Section 63.116, Process vent provisions—performance test methods and procedures to determine compliance;

(5) Section 63.117, Process vent provisions—reporting and recordkeeping requirements for group and TRE determinations and performance tests; and

(6) Section 63.118, Process vent provisions—periodic reporting and recordkeeping requirements.

(c) Owners or operators required to comply with this paragraph (c) shall comply with the requirements of subpart G of this part specified in paragraphs (c)(1) through (c)(6) of this section, with the differences noted in paragraphs (d)(1) through (d)(14) of this section for the purposes of this subpart:

(1) Section 63.113, Process vent provisions—reference control technology;

(2) Section 63.114, Process vent provisions—monitoring requirements;

(3) Section 63.115, Process vent provisions—methods and procedures for process vent group determination;

(4) Section 63.116, Process vent provisions—performance test methods and procedures to determine compliance;

(5) Section 63.117, Process vent provisions—reporting and recordkeeping requirements for group and TRE determinations and performance tests; and

(6) Section 63.118, Process vent provisions—periodic reporting and recordkeeping requirements.

(d) The differences noted in paragraphs (d)(1) through (d)(14) of this section apply to owners or operators complying with certain provisions of subpart G of this part, as specified in paragraph (b) or (c) of this section.

(1) When the term ''process vent'' is used in §§ 63.113 through 63.118, the term ''continuous process vent,'' and the definition of this term in § 63.1402 shall apply for the purposes of this subpart.

(2) When the term ''Group 1 process vent'' is used in §§ 63.113 through 63.118, the term ''Group 1 continuous process vent,'' and the definition of this term in § 63.1402 shall apply for the purposes of this subpart.

(3) When the term ''Group 2 process vent'' is used in §§ 63.113 through 63.118, the term ''Group 2 continuous process vent,'' and the definition of this term in § 63.1402 shall apply for the purposes of this subpart.

(4) When December 31, 1992, is referred to in § 63.113, apply the date

December 14, 1998 for the purposes of this subpart.

(5) When § 63.151(f), alternative monitoring parameters, and § 63.152(e), submission of an operating permit, are referred to in §§ 63.114(c) and 63.117(e), § 63.1419(f), alternative monitoring parameters, and § 63.1419(e)(8), submission of an operating permit, respectively, shall apply for the purposes of this subpart.

(6) When the Notification of Compliance Status requirements contained in § 63.152(b) are referred to in §§ 63.114 and 63.117, the Notification of Compliance Status requirements contained in § 63.1419(e)(5) shall apply for the purposes of this subpart.

(7) When the Periodic Report requirements contained in § 63.152(c) are referred to in §§ 63.117 and 63.118, the Periodic Report requirements contained in § 63.1419(e)(6) shall apply for the purposes of this subpart.

(8) When the definition of excursion in § 63.152(c)(2)(ii)(A) is referred to in § 63.118(f)(2), the provisions in § 63.1418(j), (k), and (l) shall apply for the purposes of this subpart.

(9) When § 63.114(e) specifies that an owner or operator shall submit the information required in § 63.152(b) in order to establish the parameter monitoring range, the owner or operator shall comply with the provisions of § 63.1418 for establishing the parameter monitoring level and shall comply with § 63.1419(e)(5) for purposes of reporting information related to establishment of the parameter monitoring level for purposes of this subpart. Further, the term ''level'' shall apply when the term ''range'' is used in §§ 63.114, 63.117, and 63.118.

(10) When reports of process changes are required under § 63.118(g), (h), (i), or (j), paragraphs (d)(10)(i) through (d)(10)(iv) of this section shall apply for the purposes of this subpart. In addition, for the purposes of this subpart, paragraph (d)(10)(v) of this section applies, and § 63.118(k) does not apply to owners or operators of affected sources.

(i) For the purposes of this subpart, whenever a process change, as defined in § 63.115(e), is made that causes a Group 2 continuous process vent to become a Group 1 continuous process vent, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the Group 1 provisions in §§ 63.113 through 63.118 in accordance with § 63.1400(i)(2)(ii).

(ii) Whenever a process change, as defined in § 63.115(e), is made that causes a Group 2 continuous process vent with a TRE greater than 4.0 to become a Group 2 continuous process vent with a TRE less than 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in § 63.113(d) by the dates specified in § 63.1401.

(iii) Whenever a process change, as defined in § 63.115(e), is made that causes a Group 2 continuous process vent with a flow rate less than 0.005 standard cubic meter per minute to become a Group 2 continuous process vent with a flow rate of 0.005 standard cubic meter per minute or greater and a TRE index value less than or equal to 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in § 63.113(d) by the dates specified in § 63.1401.

(iv) Whenever a process change, as defined in § 63.115(e), is made that causes a Group 2 continuous process vent with an organic HAP concentration less than 50 parts per million by volume to become a Group 2 continuous process vent with an organic HAP concentration of 50 parts per million by volume or greater and a TRE index value less than or equal to 4.0, the owner or operator shall submit a report within 180 days after the process change is made or with the next Periodic Report, whichever is later. A description of the process change shall be submitted with the report of the process change, and the owner or operator shall comply with the provisions in § 63.113(d) by the dates specified in § 63.1401.

(v) The owner or operator is not required to submit a report of a process change if one of the conditions listed in paragraph (d)(10)(v)(A), (d)(10)(v)(B), (d)(10)(v)(C), or (d)(10)(v)(D) of this section is met:

(A) The process change does not meet the definition of a process change in § 63.115(e);

(B) The vent stream flow rate is recalculated according to § 63.115(e) and the recalculated value is less than 0.005 standard cubic meter per minute;

(C) The organic HAP concentration of the vent stream is recalculated according to § 63.115(e) and the recalculated value is less than 50 parts per million by volume; or

(D) The TRE index value is recalculated according to § 63.115(e) and the recalculated value is greater than 4.0.

(11) When the provisions of § 63.116(c)(3) and (c)(4) specify that Method 18, 40 CFR part 60, appendix A, shall be used, the methods specified in § 63.1417(b) shall be used for the purposes of this subpart.

(12) When § 63.118, periodic reporting and recordkeeping requirements, refers to § 63.152(f), the recordkeeping requirements in § 63.1419(d) shall apply for purposes of this subpart.

(13) When § 63.115(c)(3)(ii)(B) and (d)(2)(iv) and § 63.116(c)(3)(ii)(B) and (c)(4)(ii)(C) refer to Table 2 of subpart F of this part, the owner or operator shall only consider organic HAP listed on Table 3 of this subpart for purposes of this subpart.

(14) In § 63.116(a), instead of the reference to § 63.11(b), the requirements in § 63.1417(g) for flares shall apply.

(e) For purposes of this subpart, TRE values shall be calculated using the equations for a 70% heat recovery thermal incinerator, as specified in § 63.115(d)(3) and Table 1 of subpart G of this part.

(f) As an alternative standard, the owner or operator of a new affected source may comply with the continuous process vent standards by routing process vents to a control device achieving an outlet organic HAP concentration of 20 ppmv or less. Any continuous process vents that are not routed to this control device must be controlled in accordance with the provisions of paragraphs (b) or (c) of this section, as appropriate. Compliance with the outlet concentrations shall be determined by the initial compliance procedures described in § 63.1417(a)(6) and the continuous emission monitoring requirements described in § 63.1418(i).

§ 63.1406 Reactor batch process vents—standards.

(a) *Reactor batch process vents.* Owners or operators of reactor batch process vents located at new or existing affected sources shall comply with the requirements in paragraph (b) or (c) of this section, as appropriate. As an alternative to complying with paragraph (b) or (c) of this section, as appropriate, an owner or operator may comply with paragraph (d) of this section.

(b) *Reactor batch process vents located at new affected sources.* The owner or operator of a reactor batch process vent located at a new affected source shall comply with the

requirements of either paragraph (b)(1), (b)(2), or (b)(3) of this section.

(1) For each reactor batch process vent, vent all emissions of organic HAP to a flare. The flare shall comply with the requirements of § 63.1417(g).

(2) For each reactor batch process vent, reduce organic HAP emissions for the batch cycle by 95 weight percent using a control device. Owners or operators may achieve compliance with this paragraph (b)(2) through the control of selected batch emission episodes or the control of portions of selected batch emission episodes. Documentation demonstrating how the 95 weight percent emission reduction is achieved for the batch cycle is required by §§ 63.1408(b)(2) and 63.1417(e)(5)(iii) and shall be submitted in the Notification of Compliance Status required by § 63.1419(e)(5).

(3) Organic HAP emissions from all reactor batch process vents within the affected source shall be no greater than 0.01 kilogram of HAP per megagram of product.

(c) *Reactor batch process vents located at existing affected sources.* The owner or operator of a reactor batch process vent located at an existing affected source shall comply with the requirements of either paragraph (c)(1), (c)(2), or (c)(3) of this section.

(1) For each reactor batch process vent, vent all emissions of organic HAP to a flare. The flare shall comply with the requirements of § 63.1417(g).

(2) For each reactor batch process vent, reduce organic HAP emissions for the batch cycle by 93 weight percent using a control device. Owners or operators may achieve compliance with this paragraph (c)(2) through the control of selected batch emission episodes or the control of portions of selected batch emission episodes. Documentation demonstrating how the 93 weight percent emission reduction is achieved for the batch cycle is required by §§ 63.1408(b)(2) and 63.1417(e)(5)(iii) and shall be submitted in the Notification of Compliance Status required by § 63.1419(e)(5).

(3) Organic HAP emissions from all reactor batch process vents within the affected source shall be no greater than 0.017 kilogram of HAP per megagram of product.

(d) As an alternative standard, the owner or operator of an existing or new affected source may comply with the requirements of paragraph (b) or (c) of this section by venting all emissions from a reactor batch process vent to a control device achieving an outlet organic HAP concentration of 20 ppmv or less. Any reactor batch process vents that are not vented to a control device meeting the conditions of this paragraph (d) must be controlled in accordance with the provisions of paragraphs (b) or (c) of this section. Compliance with the outlet concentrations shall be determined by the initial compliance procedures described in § 63.1417(a)(6) and the continuous emission monitoring requirements described in § 63.1418(i).

(e) If a boiler or process heater is used to comply with the requirements of paragraph (b) or (c) of this section, the reactor batch process vent shall be introduced into the flame zone of such a device.

§ 63.1407 Non-reactor batch process vents—standards.

(a) *Non-reactor batch process vents.* Owners or operators of non-reactor batch process vents located at new or existing affected sources with 0.23 megagrams per year (0.25 tons per year) of uncontrolled HAP emissions or greater from the collection of non-reactor batch process vents within the affected source shall comply with the requirements in paragraph (b) or (c) of this section, as appropriate. As an alternative to complying with paragraph (b) or (c) of this section, as appropriate, an owner or operator may comply with paragraph (d) of this section. Owners or operators shall determine uncontrolled HAP emissions from the collection of non-reactor batch process vents within the affected source as specified in paragraph (f) of this section.

(b) *Non-reactor batch process vents located at new affected sources.* The owner or operator of a non-reactor batch process vent located at a new affected source shall comply with the requirements of either paragraph (b)(1) or (b)(2) of this section.

(1) For the collection of non-reactor batch process vents within the affected source, vent all emissions of organic HAP to a flare. The flare shall comply with the requirements of § 63.1417(g).

(2) For the collection of non-reactor batch process vents within the affected source, reduce organic HAP emissions for the batch cycle by 83 weight percent using a control device. Owners or operators may achieve compliance with this paragraph (b)(2) through the control of selected non-reactor batch process vents or the control of portions of selected periods of emissions from all or selected non-reactor batch process vents. Documentation demonstrating how the 83 weight percent emission reduction is achieved is required by §§ 63.1408(b)(2) and 63.1417(e)(5)(iii) and shall be submitted in the Notification of Compliance Status required by § 63.1419(e)(5).

(c) *Non-reactor batch process vents located at existing affected sources.* The owner or operator of a non-reactor batch process vent located at an existing affected source shall comply with the requirements of either paragraph (c)(1) or (c)(2) of this section.

(1) For the collection of non-reactor batch process vents within the affected source, vent all emissions of organic HAP to a flare. The flare shall comply with the requirements of § 63.1417(g).

(2) For the collection of non-reactor batch process vents within the affected source, reduce organic HAP emissions for the batch cycle by 68 weight percent using a control device. Owners or operators may achieve compliance with this paragraph (c)(2) through the control of selected non-reactor batch process vents or the control of portions of selected periods of emissions from all or selected non-reactor batch process vents. Documentation demonstrating how the 68 weight percent emission reduction is achieved is required by §§ 63.1408(b)(2) and 63.1417(e)(5)(iii) and shall be submitted in the Notification of Compliance Status required by § 63.1419(e)(5).

(d) As an alternative standard, the owner or operator of an existing or new affected source may comply with the requirements of paragraph (b) or (c) of this section by venting all emissions from a non-reactor batch process vent to a control device achieving an outlet organic HAP concentration of 20 ppmv or less. Any reactor batch process vents that are not vented to a control device meeting the conditions of this paragraph (d) must be controlled in accordance with the provisions of paragraphs (b) or (c) of this section. Compliance with the outlet concentrations shall be determined by the initial compliance procedures described in § 63.1417(a)(6) and the continuous emission monitoring requirements described in § 63.1418(i).

(e) If a boiler or process heater is used to comply with paragraph (b) or (c) of this section, the reactor batch process vent shall be introduced into the flame zone of such a device.

(f) Owners or operators shall determine uncontrolled HAP emissions from the collection of non-reactor batch process vents within the affected source based on engineering assessment as described in § 63.1417(e)(3)(vi). If the owner or operator finds that uncontrolled HAP emissions from the collection of non-reactor batch process vents within the affected source are less than 0.23 megagrams per year (0.25 tons per year), the owner or operator shall keep records as specified in § 63.1408(a).

§ 63.1408 Batch process vents—recordkeeping provisions.

(a) *Records of non-reactor batch process vent emissions cutoff.* If the owner or operator finds that uncontrolled HAP emissions from the collection of non-reactor batch process vents within the affected source are less than 0.23 megagrams per year (0.25 tons per year), the owner or operator shall keep records as specified in paragraphs (a)(1) or (a)(2) of this section.

(1) Retain information, data, and analysis used to document the estimated emissions for the collection of non-reactor batch process vents within the affected source.

(2) When requested by the Administrator, demonstrate that emissions for the collection of non-reactor batch process vents within the affected source are less than 0.23 megagrams per year (0.25 tons per year).

(b) *Compliance demonstration records.* Each owner or operator of a batch process vent complying with § 63.1406 or § 63.1407 shall keep the following records, as applicable, readily accessible:

(1) If a batch process vent is in compliance with the alternative 20 ppmv limit specified in § 63.1406(d) or § 63.1407(d), results of the initial compliance demonstration specified in § 63.1417(a)(6).

(2) If a batch process vent is in compliance with the percent reduction requirements of § 63.1406 or § 63.1407, records documenting the batch cycle percent reduction or overall percent reduction, as appropriate, as specified in § 63.1417(e)(5)(iii).

(3) When using a flare to comply with § 63.1406 or § 63.1407:

(i) The flare design (i.e., steam-assisted, air-assisted or non-assisted);

(ii) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by § 63.1417(g); and

(iii) Periods when all pilot flames were absent.

(4) The following information when using a control device to achieve compliance with the percent reduction requirement of § 63.1406 or § 63.1407:

(i) For an incinerator or non-combustion control device, the percent reduction of organic HAP achieved for emissions vented to the control device, as determined using the procedures specified in § 63.1417(e)(5);

(ii) For a boiler or process heater, a description of the location at which the vent stream is introduced into the boiler or process heater; and

(iii) For a boiler or process heater with a design heat input capacity of less than 44 megawatts and where the vent stream is introduced with combustion air or used as a secondary fuel and is not mixed with the primary fuel, the percent reduction of organic HAP achieved for emissions vented to the control device, as determined using the procedures specified in § 63.1417(e)(5).

(c) *Establishment of parameter monitoring level records.* For each parameter monitored according to § 63.1418(b) and Table 4 of this subpart, or for alternate parameters and/or parameters for alternate control devices monitored according to § 63.1419(f) as allowed under § 63.1418(g), maintain documentation showing the establishment of the level that indicates proper operation of the control device as required by § 63.1418(c) for parameters specified in § 63.1418(b) and as required by § 63.1419(f) for alternate parameters. An owner or operator may choose to monitor operating parameters for batch process vents on a batch cycle daily average basis or on a block average basis. The batch cycle daily average is based on parameter monitoring accomplished during the operating day (i.e., a 24-hour basis). The block average is based on the parameter monitoring accomplished during a single batch cycle. As specified in §§ 63.1402 and 63.1419(d)(3), the block shall be the period of time equal to the batch cycle. Said documentation shall include the following:

(1) Parameter monitoring data used to establish the level;

(2) Identification that the parameter monitoring level is associated with a batch cycle daily average or a block average; and

(3) A definition of the batch cycle or block, as appropriate.

(d) [Reserved]

(e) *Controlled batch process vent continuous compliance records.* Continuous compliance records shall be kept as specified in paragraphs (e)(1) through (e)(4), as appropriate.

(1) Each owner or operator of a batch process vent that uses a control device to comply with the percent reduction requirement of § 63.1406 or § 63.1407 shall keep the following records, as applicable, readily accessible:

(i) Continuous records of the equipment operating parameters specified to be monitored under § 63.1418(b) as applicable, and listed in Table 4 of this subpart, or specified by the Administrator in accordance with § 63.1419(f) as allowed under § 63.1418(g). Said records shall be kept as specified under § 63.1419(d), except as specified in paragraphs (e)(1)(i)(A) and (e)(1)(i)(B) of this section.

(A) For carbon adsorbers, the records specified in Table 4 of this subpart shall be maintained in place of continuous records.

(B) For flares, the records specified in Table 4 of this subpart shall be maintained in place of continuous records.

(ii) Records of the batch cycle daily average value or block average value of each continuously monitored parameter, as specified in § 63.1419(d).

(2) Each owner or operator of a batch process vent that uses a control device to comply with § 63.1406 or § 63.1407 shall keep the following records, as applicable, readily accessible:

(i) Hourly records of whether the flow indicator for bypass lines specified in § 63.1418(h) was operating and whether a diversion was detected at any time during the hour. Also, records of the times of all periods when the vent is diverted from the control device or the flow indicator specified in § 63.1418(h) is not operating.

(ii) Where a seal or closure mechanism is used to comply with § 63.1418(h), hourly records of whether a diversion was detected at any time are not required. The owner or operator shall record whether the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line damper or valve position has changed, or the key for a lock-and-key type configuration has been checked out, and records of any car-seal that has broken.

(iii) Records specifying the times and duration of periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments. In addition, records specifying any other periods of process or control device operation when monitors are not operating.

(3) Each owner or operator of a batch process vent in compliance with the alternative 20 ppmv limit, as specified in § 63.1406(d) or § 63.1407(d), shall keep the records of continuous emissions monitoring described in § 63.1418(i).

(4) Each owner or operator of a batch process vent in compliance with the kilogram of HAP per megagram of product emission limits, specified in § 63.1406(b)(3) or § 63.1406(c)(3), shall keep the following records, as applicable, readily accessible:

(i) If there is a violation of the emission limit, as specified in § 63.1418(m), the individual monthly average and all the data used to

calculate the individual monthly average, for the month in which the violation occurs, and the rolling average monthly emission rate or the 12-month rolling average monthly emission rate, as appropriate.

(ii) If there is not a violation of the emission limit, as specified in § 63.1418(m), the rolling average monthly emission rate or the 12-month rolling average monthly emission rate, as appropriate.

§ 63.1409 Batch process vents—reporting provisions.

(a) The owner or operator of an affected source shall submit the information specified in § 63.1408 (b) and (c), as applicable, for batch process vents complying with § 63.1406 or § 63.1407, as part of the Notification of Compliance Status specified in § 63.1419(e)(5).

(b) If an owner or operator uses a control device other than those specified in § 63.1418(b) and listed in Table 4 of this subpart or requests approval to monitor a parameter other than those specified in § 63.1418(b) and listed in Table 4 of this subpart, the owner or operator shall submit a description of planned reporting and recordkeeping procedures, as specified in § 63.1419(f), as part of the Precompliance Report required under § 63.1419(e)(3). The Administrator will specify appropriate reporting and recordkeeping requirements as part of the review of the Precompliance Report.

(c) Owners or operators complying with § 63.1418(h), shall comply with paragraph (c)(1) or (c)(2) of this section, as appropriate.

(1) Submit reports of the times of all periods recorded under § 63.1408(e)(2)(i) when the batch process vent is diverted from the control device through a bypass line, with the next Periodic Report.

(2) Submit reports of all occurrences recorded under § 63.1408(e)(2)(ii) in which the seal mechanism is broken, the bypass line damper or valve position has changed, or the key to unlock the bypass line damper or valve was checked out, with the next Periodic Report.

(d) Each owner or operator of a batch process vent in compliance with the kilogram of HAP per megagram of product emission limits, specified in § 63.1406 (b)(3) or (c)(3), shall submit the information specified in § 63.1408(e)(4)(i) in the next Periodic Report required in § 63.1419(e)(6) when a violation of the emission limit, as specified in § 63.1418(m) occurs.

§ 63.1410 [Reserved]

§ 63.1411 [Reserved]

§ 63.1412 [Reserved]

§ 63.1413 Heat exchange systems provisions.

(a) The owner or operator of an affected source shall comply with § 63.104, with the differences noted in paragraphs (b) through (e) of this section, for the purposes of this subpart. The compliance date for heat exchange systems subject to the provisions of this section is specified in § 63.1401.

(b) When the term ''chemical manufacturing process unit'' is used in § 63.104, the term ''affected source'' shall apply for purposes of this subpart. Further, when the phrase ''a chemical manufacturing process unit meeting the conditions of § 63.100(b)(1) through (b)(3) of this subpart, except for chemical manufacturing units meeting the condition specified in § 63.100(c) of this subpart'' is used in § 63.104(a), the term ''an affected source'' shall apply for purposes of this subpart.

(c) When § 63.104 refers to Table 4 of subpart F of this part or Table 9 of subpart G of this part, the owner or operator is only required to consider organic HAP listed on Table 3 of this subpart that are also listed on Table 4 of subpart F of this part or Table 9 of subpart G of this part, as indicated on Table 3 of this subpart for purposes of this subpart.

(d) When § 63.104(f)(1) specifies that the monitoring plan and records required by § 63.104(f)(1)(i) through (f)(1)(iv) shall be kept as specified in § 63.103(c), the provisions of § 63.1419(a) and (h) shall apply for purposes of this subpart.

(e) When § 63.104(f)(2) requires information to be reported in the Periodic Reports required by § 63.152(c), the owner or operator should instead report the information specified in § 63.104(f)(2) in the Periodic Reports required by § 63.1419(e)(6), for the purposes of this subpart.

§ 63.1414 Wastewater provisions.

(a) With the differences noted in paragraphs (b) through (s) of this section, the owner or operator of each new affected source shall comply with the requirements of subpart G of this part specified in paragraphs (a)(1) through (a)(15) of this section for each process wastewater stream originating at an affected source, and the requirements of subpart G of this part 63 specified in paragraph (a)(16) of this part for equipment that is subject to § 63.149. The owner or operator of each new affected source shall also comply with paragraph (t) of this section for the control of maintenance wastewater. The compliance date for process wastewater streams, equipment that is subject to § 63.149, and maintenance wastewater subject to the provisions of this section is specified in § 63.1401. Wastewater at existing affected sources is not subject to the provisions of this section or any requirements of subpart A of this part:

(1) Section 63.132, Process wastewater provisions—general;

(2) Section 63.133, Process wastewater provisions—wastewater tanks;

(3) Section 63.134, Process wastewater provisions—surface impoundments;

(4) Section 63.135, Process wastewater provisions—containers;

(5) Section 63.136, Process wastewater provisions—individual drain systems;

(6) Section 63.137, Process wastewater provisions—oil-water separators;

(7) Section 63.138, Process wastewater provisions—performance standards for treatment processes managing Group 1 wastewater streams and/or residuals removed from Group 1 wastewater streams;

(8) Section 63.139, Process wastewater provisions—control devices;

(9) Section 63.140, Process wastewater provisions—delay or repair;

(10) Section 63.143, Process wastewater provisions—inspections and monitoring of operations;

(11) Section 63.144, Process wastewater provisions—test methods and procedures for determining applicability and Group 1/Group 2 determinations;

(12) Seciton 63.145, Process wastewater provisions—test methods and procedures to determine compliance;

(13) Section 63.146, Process wastewater provisions—reporting;

(14) Section 63.147, Process wastewater provisions—recordkeeping;

(15) Section 63.148, Leak inspection provisions; and

(16) Section 63.149, Control requirements for certain liquid streams in open systems within a chemical manufacturing process unit.

(b) When the determination of equivalence criteria in § 63.102(b) is referred to in §§ 63.132, 63.133, and 63.137, the provisions in § 63.6(g) shall apply for the purposes of this subpart.

(c) When the storage tank requirements contained in §§ 63.119 through 63.123 are referred to in §§ 63.132 through 63.149, §§ 63.120 through 63.123 are applicable, with the exception of the differences referred to

in § 63.1404, for the purposes of this subpart. Further, the requirements of § 63.1404(b)(1) are applicable instead of the requirements of § 63.119, for purposes of this subpart.

(d) When § 63.146(a)(3) requires the submission of a request for approval to monitor alternative parameters according to the procedures specified in § 63.151(g) or § 63.152(e), owners or operators requesting to monitor alternative parameters shall follow the procedures specified in § 63.1419(f) for the purposes of this subpart.

(e) When § 63.147(d) requires owners or operators to keep records of the daily average value of each continuously monitored parameter for each operating day as specified in § 63.152(f), owners and operators shall instead keep records of the daily average value of each continuously monitored parameter as specified in § 63.1419(d) for the purposes of this subpart.

(f) When §§ 63.132 through 63.149 refer to a ''new source,'' the term ''new affected source,'' as defined in § 63.1400(a), shall apply for the purposes of this subpart.

(g) When § 63.132 (a) and (b) refer to the ''applicable dates specified in § 63.100 of subpart F of this part,'' the compliance dates specified in § 63.1401 shall apply for the purposes of this subpart.

(h) When §§ 63.132 through 63.149 refer to Table 8 of subpart G of this part, the owners or operator shall only consider organic HAP listed on Table 3 of this subpart that are also listed on Table 8 of subpart G of this part, as indicated on Table 3 of this subpart, for purposes of this subpart. When §§ 63.132 through 63.149 refer to Table 9 or Table 36 of subpart G of this part, the owners or operator shall only consider organic HAP listed on Table 3 of this subpart that are also listed on Table 8 of subpart G of this part, as indicated on Table 3 of this subpart, for the purposes of this subpart. In addition, when §§ 63.132 through 63.149 refer to List 1, List 2, and/or List 3, as listed in Table 36 of subpart G of this part, the owner or operator is only required to consider organic HAP listed on Table 3 of this subpart that are also listed on Table 8 of subpart G of this part, as indicated on Table 3 of this subpart, for the purposes of this subpart.

(i) Whenever §§ 63.132 through 63.149 refer to a ''chemical manufacturing process unit,'' owners or operators of affected sources shall apply the term ''affected source,'' as defined in § 63.1400(a), for the purposes of this subpart. In addition, when §§ 63.132 through 63.149 refer to § 63.100(b), § 63.1400(a) shall apply for the purposes of this subpart.

(j) Whenever §§ 63.132 through 63.149 refer to a Group 1 wastewater stream or a Group 2 wastewater stream, the definitions of these terms contained in § 63.1402 shall apply for the purposes of this subpart.

(k) When § 63.149(d) refers to ''§ 63.100(f) of subpart F'', the phrase ''§ 63.1400(d)'' shall apply for the purposes of this subpart. In addition, where § 63.149(d) states ''and the item of equipment is not otherwise exempt from controls by the provisions of subparts A, F, G, or H of this part'', the phrase ''and the item of equipment is not otherwise exempt from controls by the provisions of subpart A, F, G, or H of this part, or this subpart'' shall apply for the purposes of this subpart.

(l) When § 63.149(e)(1) and (e)(2) refer to ''a chemical manufacturing process unit subject to the new source requirements of 40 CFR § 63.100(l)(1) or 40 CFR 63.100 (l)(2),'' the phrase ''a new affected source as described in 63.1400(a),'' shall apply for the purposes of this subpart.

(m) When the Notification of Compliance Status requirements contained in § 63.152(b) are referred to in §§ 63.138 and 63.146, the Notification of Compliance Status requirements contained in § 63.1419(e)(5) shall apply for the purposes of this subpart. In addition, when §§ 63.132 through 63.149 require that information be reported according to § 63.152(b) in the Notification of Compliance Status, the owner or operator of an affected source shall report the specified information in the Notification of Compliance Status required by § 63.1419(e)(5) for the purposes of this subpart.

(n) When the Periodic Report requirements contained in § 63.152(c) are referred to in § 63.146, the Periodic Report requirements contained in § 63.1419(e)(6) shall apply for the purposes of this subpart. In addition, when §§ 63.132 through 63.149 require that information be reported in the Periodic Reports required in § 63.152(c), the owner or operator of an affected source shall report the specified information in the Periodic Reports required in § 63.1419(e)(6) for the purposes of this subpart.

(o) When § 63.143(f) specifies that owners or operators shall establish the range that indicates proper operations of the treatment process or control device, the owner or operator shall instead comply with the requirements of § 63.1418 for establishing parameter level maximums/minimums for the purposes of this subpart.

(p) When §§ 63.146(b)(7) and 63.146(b)(8) require that ''the information on parameter ranges specified in § 63.152(b)(2)'' be reported in the Notification of Compliance Status, owner and operators of affected sources are instead required to report the information on parameter levels as specified in § 63.1335(e)(5)(ii) for the purposes of this subpart.

(q) [Reserved]

(r) When the provisions of § 63.139(c)(1)(ii), § 63.145(d)(4), or § 63.145(i)(2) specify that Method 18, 40 CFR part 60, appendix A, shall be used, the methods specified in § 63.1417(b) shall be used for the purposes of this subpart.

(s) In § 63.145(j), instead of the reference to § 63.11(b), the requirements in § 63.1417(g) for flares shall apply.

(t) For each new affected source, the owner or operator shall comply with the requirements for maintenance wastewater in § 63.105, except that when § 63.105(a) refers to ''organic HAPs,'' the definition of organic HAP in § 63.1402 shall apply for the purposes of this subpart.

§ 63.1415 Equipment leak provisions.

The owner or operator of each affected source shall comply with the requirements of subpart H of this part 63, with the differences noted in paragraphs (a) through (r) of this section, except as specified in § 63.1403(c).

(a) If specific items of equipment, comprising part of a process unit subject to this subpart, are managed by different administrative organizations (e.g., different companies, affiliates, departments, divisions, etc.), those items of equipment may be aggregated with any APPU within the affected source for all purposes under subpart H of this part, providing there is no delay in achieving the applicable compliance date.

(b) When the terms ''equipment'' and ''equipment leak'' are used in subpart H of this part, the definitions of these terms in § 63.1402 shall apply for the purposes of this subpart.

(c) The compliance date for the equipment leak provisions contained in this section is provided in § 63.1401. Whenever subpart H of this part refers to the compliance dates specified in § 63.100(k), the compliance dates listed in § 63.1401 shall instead apply, for the purposes of this subpart. In addition, whenever subpart H of this part refers to sources subject to subpart F of this part, the subpart H requirements shall instead apply to sources subject to this subpart, for the purposes of this subpart.

(d) In addition to complying with the requirements specified in § 63.167(b), the owner or operator shall put in place the cap, blind flange, plug, or second valve within 1 hour of cessation of operations requiring process fluid flow through the open-ended valve or line, or within 1 hour of cessation of maintenance or repair.

(e) In addition to the monitoring intervals specified in § 63.168(d), owners and operators may elect to monitor each valve in APPUs with less than 0.25 percent leaking valves once every 2 years.

(f) For purposes of this subpart, the requirements of this paragraph (f) apply instead of § 63.168(e). At affected sources to which this subpart applies, an owner or operator may choose to subdivide, or subgroup, the valves in the APPUs that comprise the affected source and apply the provisions of § 63.168(d) to each subgroup of valves, provided the overall performance of total valves in the affected source is less than 2 percent leaking valves, as detected according to § 63.168(b) and as calculated according to paragraphs (g)(1) and (g)(2) of this section. If the owner or operator elects to subgroup the valves in the affected source, then the provisions of paragraphs (g)(1) through (g)(7) of this section apply.

(g) *Subgrouping of Valves.* The owner or operator who elects to subgroup the valves in the affected source shall comply with the provisions of paragraphs (g)(1) through (g)(7) of this section.

(1) The initial assignment or subsequent reassignment of valves to subgroups within the affected source shall be governed by the provisions of paragraphs (g)(1)(i) through (g)(1)(iii) of this section.

(i) The owner or operator shall determine which valves are assigned to each subgroup. Valves with less than 1 year of monitoring data or valves not monitored within the last 12 months must be placed initially into the most frequently monitored subgroup until at least 1 year of monitoring data has been obtained.

(ii) Any valve or group of valves can be reassigned from a less frequently monitored subgroup to a more frequently monitored subgroup provided that the valves to be reassigned were monitored during the most recent monitoring period for the less frequently monitored subgroup. The monitoring results must be included with the less frequently monitored subgroup's monitoring event and associated next percent leaking valves calculation for that subgroup.

(iii) Any valve or group of valves can be reassigned from a more frequently monitored subgroup to a less frequently monitored subgroup provided that the valves to be reassigned have not leaked for the period of the less frequently monitored subgroup (e.g., for the last 12 months, if the valve or group of valves is to be reassigned to a subgroup being monitored annually). Nonrepairable valves may not be reassigned to a less frequently monitored subgroup.

(2) The owner or operator shall determine every 6 months if the overall performance of total valves in the affected source is less than 2 percent leaking valves and so indicate the performance in the next periodic report. If the overall performance of total valves in the affected source is 2 percent leaking valves or greater, the owner or operator shall revert to the program required in § 63.168(d). The overall performance of total valves in the affected source shall be calculated as a weighted average of the percent leaking valves of each subgroup according to Equation 1:

$$\%V_{LO} = \frac{\sum_{i=1}^{n} (\%V_{Li} \times V_i)}{\sum_{i=1}^{n} V_i} \qquad \text{[Eq. 1]}$$

Where:

$\%V_{LO}$ = overall performance of total valves in the affected source.

$\%V_{Li}$ = percent leaking valves in subgroup i, most recent value calculated according to the procedures in paragraphs (h)(1) and (h)(2) of this section.

V_i = number of valves in subgroup i.

n = number of subgroups.

(3) In addition to records required by § 63.181, the owner or operator shall maintain records specified in paragraphs (g)(3)(i) through (g)(3)(iv) of this section:

(i) Which valves are assigned to each subgroup;

(ii) Monitoring results and calculations made for each subgroup for each monitoring period;

(iii) Which valves are reassigned and when they were reassigned; and

(iv) The results of the semiannual overall performance calculation required in paragraph (g)(2) of this section.

(4) The owner or operator shall notify the Administrator no later than 30 days prior to the beginning of the next monitoring period of the decision to subgroup valves. The notification shall identify the participating APPUs and the valves assigned to each subgroup.

(5) In addition to the information required by § 63.182(d), the owner or operator shall submit in the periodic reports the information specified in paragraphs (g)(5)(i) and (g)(5)(ii) of this section:

(i) Valve reassignments occurring during the reporting period; and

(ii) Results of the semiannual overall performance calculation required by paragraph (g)(2) of this section:

(6) To determine the monitoring frequency for each subgroup, the calculation procedures of paragraph (h)(3) of this section shall be used.

(7) Except for the overall performance calculations required by paragraphs (f) and (g)(2) of this section, each subgroup shall be treated as if it were a APPU for the purposes of applying the provisions of this section.

(h)(1) Percent leaking valves for each APPU or subgroup shall be determined by Equation 2:

$$\%V_{LO} = \left[V_L / V_T\right] \times 100 \qquad \text{[Eq. 2]}$$

Where:

$\%V_L$ = percent leaking valves.

V_L = number of valves found leaking excluding nonrepairables as provided in paragraph (h)(3)(i) of this section.

V_T = total valves monitored, in a monitoring period excluding valves monitored as required by § 63.174(f)(3).

(2) When determining monitoring frequency for each APPU or subgroup subject to monthly, quarterly, or semiannual monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last two consecutive monitoring periods. When determining monitoring frequency for each APPU or subgroup subject to annual or biennial (once every 2 years) monitoring frequencies, the percent leaking valves shall be the arithmetic average of the percent leaking valves from the last three consecutive monitoring periods.

(3)(i) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with paragraph (h)(3)(ii) of this section. Otherwise, a number of nonrepairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process may be excluded from calculation of percent leaking valves for subsequent monitoring periods.

(ii) If the number of nonrepairable valves exceeds 1 percent of the total

number of valves in organic HAP service at a process, the number of nonrepairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves.

(i) For purposes of this subpart, under § 63.171(a), delay of repair of equipment for which leaks have been detected is also allowed if the owner or operator determines that repair personnel would be exposed to an immediate danger if attempting to repair without a process unit shutdown. Repair of this equipment delayed for this reason shall also occur by the end of the next scheduled process unit shutdown.

(j) Under § 63.172, Closed-vent systems and control devices, owners or operators may, instead of complying with the provisions of § 63.172(f), design a closed-vent system 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 associated control device is operating.

(k) Under § 63.174(b), owners or operators shall use the monitoring intervals specified in paragraphs (k)(1) through (k)(5) of this section instead of the monitoring intervals specified in § 63.174(b)(3)(i) through (b)(3)(iv) for purposes of this subpart.

(1) Once per year (i.e., 12-month period), if the percent leaking connectors in the APPU was 0.5 percent or greater during the last required annual or biennial monitoring period.

(2) Once every 4 years, if the percent leaking connectors in the APPU was less than 0.5 percent, but equal to or greater than 0.25 percent, during the last required monitoring period. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors in the first 2 years and the remainder of the connectors within the next 2 years.

(3) Once every 8 years, if the percent leaking connectors in the APPU was less than 0.25 percent during the last required monitoring period. An owner or operator shall monitor at least 50 percent of the connectors in the first 4 years and the remainder of the connectors within the next 4 years. If the percent leaking connectors in the first 4 years is equal to or greater than 0.35 percent, the monitoring program shall revert at that time to the monitoring frequency specified in paragraph (k)(2) of this section if the percent leaking connectors is equal to or greater than 0.35 percent but less than 0.5 percent, the monitoring frequency specified in paragraph (k)(4) of this section if the percent leaking connectors is equal to or greater than 0.5 percent but less than 1.0 percent, or the monitoring frequency specified in paragraph (k)(5) of this section if the percent leaking connectors is equal to or greater than 1.0 percent.

(4) The owner or operator shall increase the monitoring frequency to once every 2 years for the next monitoring period if leaking connectors comprise at least 0.5 percent but less than 1.0 percent of the connectors monitored within the 4 years specified in paragraph (k)(2) of this section or the first 4 years specified in paragraph (k)(3) of this section. At the end of that 2 year monitoring period, the owner or operator shall monitor once per year while the percent leaking connectors is greater than or equal to 0.5 percent; if the percent leaking connectors is less than 0.5 percent, the owner or operator may return to monitoring once every 4 years or, if appropriate, once every 8 years in accordance with paragraph (k)(3) of this section.

(5) If an owner or operator complying with the requirements of paragraph (k)(2) or (k)(3) of this section for a APPU determines that 1 percent or greater of the connectors are leaking, the owner or operator shall increase the monitoring frequency to one time per year. The owner or operator may again elect to use the provisions of paragraph (k)(2) or (k)(3) of this section after a monitoring period in which less than 0.5 percent of the connectors are determined to be leaking.

(l) When complying with § 63.174(c), days that the connectors are not in organic HAP service shall not be considered part of the 3 month period in § 63.174(e).

(m) In addition to the requirements of § 63.181(b), the owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup/shutdown/malfunction plan, required by § 63.1419(b)(1), for the source or may be part of a separate document that is maintained at the plant site. Reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(n) Owners and operators of an affected source subject to this subpart are not required to submit the Initial Notification required by §§ 63.182(a)(1) and 63.182(b).

(o) As specified in § 63.1419(e)(5), the Notification of Compliance Status required by paragraphs §§ 63.182(a)(2) and 63.182(c) shall be submitted within 150 days (rather than 90 days) of the applicable compliance date specified in § 63.1401 for the equipment leak provisions.

(p) The required information specified by §§ 63.182(a)(3) and 63.182(d) (i.e., Periodic Reports) shall be submitted as part of the Periodic Reports required by § 63.1419(e)(6).

(q) In addition to the requirements of § 63.181(b)(1)(i), the owner or operator shall complete a list for each type of equipment no later than the completion of the initial survey required for that component. The list of identification numbers shall be updated, if needed, to incorporate equipment changes within 15 calendar days of the completion of each monitoring survey for the type of equipment component monitored.

(r) When the provisions of subpart H of this part 63 specify that Method 18, 40 CFR part 60, appendix A, shall be used, the methods specified in § 63.1417(b) shall be used for the purposes of this subpart.

§ 63.1416 [Reserved]

§ 63.1417 Test methods and compliance procedures.

(a) *General.* Except as specified in paragraph (a)(5) of this section, the procedures specified in paragraphs (c), (d), (e), and (f) of this section are required to demonstrate initial compliance with §§ 63.1404, 63.1405, 63.1406 and 63.1407, and § 63.1414, respectively. The provisions in paragraphs (a)(1) through (a)(4) of this section of this section also apply to design evaluations and performance tests that are specified in paragraphs (c), (d), (e), and (f) of this section. The provisions in paragraph (a)(6) of this section are used to demonstrate initial compliance with the alternative standards specified in §§ 63.1404(c), 63.1405(f), 63.1406(d), and 63.1407(d). The provisions of paragraph (a)(7) of this section specify testing requirements for condensers.

(1) *Small control devices and large control devices.* In meeting the requirements of this section, owners or operators are not required to conduct a performance test for a small control device. As specified in the appropriate paragraphs within this section, owners or operators shall either conduct a design evaluation following the procedures in paragraph (a)(2) of this section or, for batch process vents only, shall estimate emissions using the procedures in paragraph (e)(3) of this section. An owner or operator may choose to conduct a performance test for

a small control device and such a performance test shall follow the procedures specified in paragraph (c), (d), (e), or (f), as appropriate. Whenever a small control device becomes a large control device, the owner or operator shall conduct a performance test to verify continued compliance with this section. Notification that such a performance test is required, the site-specific test plan, and the results of the performance test shall be provided to the Administrator as specified in § 63.1419.

(2) *Design evaluation.* To demonstrate the organic HAP removal efficiency for a control device, a design evaluation must address the composition and organic HAP concentration of the vent stream(s) entering the control device. A design evaluation also must address other vent stream characteristics and control device operating parameters as specified in any one of paragraphs (a)(2)(i) through (a)(2)(vi) of this section, depending on the type of control device that is used. If the vent stream(s) is not the only inlet to the control device, the efficiency demonstration also must consider all other vapors, gases, and liquids, other than fuels, received by the control device.

(i) For a scrubber, the design evaluation shall consider the vent stream composition; constituent concentrations; liquid-to-vapor ratio; scrubbing liquid flow rate and concentration; temperature; and the reaction kinetics of the constituents with the scrubbing liquid. The design evaluation shall establish the design exhaust vent stream organic compound concentration level and will include the additional information in paragraphs (a)(2)(i)(A) and (a)(2)(i)(B) of this section for trays and a packed column scrubber:

(A) Type and total number of theoretical and actual trays; and

(B) Type and total surface area of packing for entire column, and for individual packed sections if column contains more than one packed section.

(ii) For a condenser, the design evaluation shall consider the vent stream flow rate, relative humidity, and temperature and shall establish the design outlet organic HAP 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. The temperature of the gas stream exiting the condenser must be measured and used to establish the outlet organic HAP concentration.

(iii) For a carbon adsorption system that regenerates the carbon bed directly onsite in the control device such as a fixed-bed adsorber, the design evaluation shall consider the vent stream flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration level, adsorption cycle time, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total regeneration stream mass or volumetric 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 carbon. For vacuum desorption, the pressure drop shall be included.

(iv) For a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device such as a carbon canister, the design evaluation shall consider the vent stream mass or volumetric flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(v) For an enclosed combustion device with a minimum residence time of 0.5 seconds and a minimum temperature of 760°C, the design evaluation must document that these conditions exist.

(vi) For a combustion control device that does not satisfy the criteria in paragraph (a)(2)(v) of this section, the design evaluation must address the following characteristics, depending on the type of control device:

(A) For a thermal vapor incinerator, the design evaluation must consider the autoignition temperature of the organic HAP, must consider the vent stream flow rate, and must establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design evaluation shall consider the vent stream flow rate and shall establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

(C) For a boiler or process heater, the design evaluation shall consider the vent stream 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) Performance testing shall be conducted in accordance with § 63.7(a)(1), (a)(3), (d), (e)(1), (e)(2), (e)(4), (g), and (h), with the exceptions specified in paragraphs (a)(3)(i) through (a)(3)(iv) of this section. Data shall be reduced in accordance with the EPA approved methods specified in the applicable subpart or, if other test methods are used, the data and methods shall be validated according to the protocol in Method 301 of appendix A of this part. Sections 63.1404 through 63.1414 also contain specific testing requirements.

(i) Performance tests shall be conducted according to the provisions of § 63.7(e)(1) and (e)(2), except that performance tests shall be conducted at maximum representative operating conditions achievable during one of the time periods described in paragraph (a)(3)(i)(A) or (a)(3)(i)(B) of this section, without necessitating that the owner or operator make product in excess of demand:

(A) The 6-month period that ends on the date that the Notification of Compliance Status is due, according to § 63.1419(e)(5); or

(B) The 6-month period that begins 3 months before the performance test and ends 3 months after the performance test.

(ii) When § 63.7(g) references the Notification of Compliance Status requirements in § 63.9(h), the requirements in § 63.1419(e)(5) shall apply for purposes of this subpart.

(iii) The owner or operator shall notify the Administrator of the intention to conduct a performance test at least 30 days before the performance test is scheduled to allow the Administrator the opportunity to have an observer present during the test.

(iv) Performance tests shall be performed no later than 150 days after the compliance dates specified in this subpart (i.e., in time for the results to be included in the Notification of Compliance Status), rather than according to the time periods in § 63.7(a)(2) of subpart A.

(v) A site-specific test plan shall be submitted to the Administrator for approval prior to testing in accordance with §§ 63.7(c) and 63.1419(e)(7)(ii). The test plan shall include a description of the planned test and rationale for why the planned performance test will provide adequate and representative results for demonstrating the performance of the control device. If required, the test plan shall include an emission profile and rationale for why the selected test period is representative.

(4) *Percent oxygen correction for combustion control devices.* If the control device is a combustion device, total organic HAP concentrations must be corrected to 3 percent oxygen. The integrated sampling and analysis procedures of Method 3B of 40 CFR part 60, appendix A, shall be used to determine the actual oxygen concentration ($\%0_{2d}$). The samples shall be taken during the same time that the total organic HAP samples are taken. The concentration corrected to 3 percent oxygen (C_c) shall be computed using Equation 3 of this subpart:

$$C_c = C_m\left(\frac{17.9}{20.9 - \%O_{2d}}\right) \qquad \text{[Eq. 3]}$$

Where:

C_c = concentration of total organic HAP corrected to 3 percent oxygen, dry basis, ppmv.

C_m = total concentration of TOC in vented gas stream, average of samples, dry basis, ppmv.

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

(5) *Exemptions from compliance demonstrations.* An owner or operator using any control device specified in paragraphs (a)(5)(i) through (a)(5)(iv) of this section is exempt from the initial compliance provisions in paragraphs (c), (d), (e), and (f) of this section.

(i) A boiler or process heater with a design heat input capacity of 44 megawatts or greater.

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

(iii) A boiler or process heater burning hazardous waste for which the owner or operator:

(A) Has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or

(B) Has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(iv) A hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O, or has certified compliance with the interim status requirements of 40 CFR part 265, subpart O.

(6) *Initial compliance with alternative standard.* Initial compliance with the alternative standards in §§ 63.1404(c), 63.1405(f), 63.1406(d), and 63.1407(d) is demonstrated when the outlet organic HAP concentration is 20 ppmv or less. To demonstrate initial compliance, the owner or operator shall be in compliance with the monitoring provisions in § 63.1418(i) on the initial compliance date.

(7) *Testing requirements for condensers.* For vent streams controlled using condensers, continuous direct measurement of condenser outlet gas temperature to be used in determining concentrations is allowed in lieu of concentration measurements.

(b) *Test methods.* When directed by any section of this subpart to conduct a performance test using the procedures specified in this paragraph (b), the owner or operator shall use the test methods specified in paragraphs (b)(1) through (b)(8) of this section. Otherwise, the owner or operator shall use the test methods specifically referred to by other sections of this subpart, or specifically referred to by sections of other subparts of this part referenced by sections of this subpart.

(1) Method 1 or 1A, 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling sites if the flow measuring device is a pitot tube. No traverse is necessary when Method 2A or 2D, 40 CFR part 60, appendix A, is used to determine gas stream volumetric flow rate.

(2) Determination of the average batch vent flow rate for a batch emission episode shall be made using the procedures specified in paragraphs (b)(2)(i) through (b)(2)(iii) of this section.

(i) The volumetric flow rate (FR_i) for a batch emission episode, in standard cubic meters per minute (scmm) at 20° C, shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR part 60, appendix A, as appropriate.

(ii) The volumetric flow rate of a representative batch emission episode shall be measured every 15 minutes.

(iii) The average batch vent flow rate for a batch emission episode shall be calculated using Equation 4 of this subpart:

$$AFR_{episode} = \frac{\sum_{i=1}^{n} FR_i}{n} \qquad \text{[Eq. 4]}$$

Where:

$AFR_{episode}$ = Average batch vent flow rate for the batch emission episode, scmm.

FR_i = Flow rate for individual measurement i, scmm.

n = Number of flow rate measurements taken during the batch emission episode.

(3) EPA Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, is used for velocity and volumetric flow rates.

(4) EPA Method 3 of 40 CFR part 60, appendix A, is used for gas analysis.

(5) EPA Method 4 of 40 CFR, part 60, appendix A, is used for stack gas moisture.

(6) The methods specified in paragraphs (b)(6)(i) through (b)(6)(iii) of this section shall be used to determine the HAP concentration.

(i) Method 316 or Method 320 of 40 CFR part 60, appendix A, shall be used to determine the concentration of formaldehyde.

(ii) Method 18 of 40 CFR part 60, appendix A, shall be used to determine the concentration of all organic HAP other than formaldehyde.

(iii) Method 308 of 40 CFR part 60, appendix A, may be used as an alternative to Method 18 of 40 CFR part 60, appendix A, to determine the concentration of methanol.

(7) If an integrated sample is taken over the entire batch emission episode to determine the average batch vent concentration of total organic HAP, emissions shall be calculated using Equation 5 of this subpart:

$$E_{episode} = K\left[\sum_{j=1}^{n}(C_j)(M_j)\right]AFR(T_h) \qquad \text{[Eq. 5]}$$

Where:

$E_{episode}$ = Emissions, kg/episode.

K = Constant, 2.494×10^{-6} $(ppmv)^{-1}$ (gm-mole/scm) (kg/gm) (min/hr), where standard temperature is 20 °C.

C_j = Average batch vent concentration of sample organic HAP component j of the gas stream, dry basis, ppmv.

M_j = Molecular weight of sample organic HAP component j of the gas stream, gm/gm-mole.

AFR = Average batch vent flow rate of gas stream, dry basis, scmm.

T_h = Hours/episode.

n = Number of organic HAP in stream.

(8) If grab samples are taken to determine the average batch vent

concentration of total organic HAP, emissions shall be calculated according to paragraphs (b)(8)(i) and (b)(8)(ii) of this section.

(i) For each measurement point, the emission rate shall be calculated using Equation 6 of this subpart:

$$E_{point} = K\left[\sum_{j=1}^{n} C_j M_j\right] FR \qquad [Eq. 6]$$

Where:

E_{point} = Emission rate for individual measurement point, kg/hr.

K = Constant, 2.494 x 10^{-6} (ppmv)-1 (gm-mole/scm) (kg/gm) (min/hr), where standard temperature is 20 °C.

C_j = Concentration of sample organic HAP component j of the gas stream, dry basis, ppmv.

M_j = Molecular weight of sample organic HAP component j of the gas stream, gm/gm-mole.

FR = Flow rate of gas stream for the measurement point, dry basis, scmm.

n = Number of organic HAP in stream.

(ii) The emissions per batch emission episode shall be calculated using Equation 7 of this subpart:

$$E_{episode} = (DUR)\left[\sum_{i=1}^{n} \frac{E_i}{n}\right] \qquad [Eq. 7]$$

Where:

$E_{episode}$ = Emissions, kg/episode.

DUR = Duration of the batch emission episode, hr/episode.

E_i = Emissions for measurement point i, kg/hr.

n = Number of measurements.

(c) *Initial compliance with storage tank provisions.* As specified in § 63.1404, initial compliance with the control requirements of § 63.1404 shall be demonstrated using the procedures specified in §§ 63.120 and 63.121, as appropriate. For owners or operators complying with § 63.1404(f), initial compliance with the alternative standard shall be demonstrated as specified in paragraph (a)(6) of this section.

(d) *Initial compliance with continuous process vent provisions.* As specified in § 63.1405, initial compliance with the control requirements of § 63.1405 shall be demonstrated using the procedures specified in § 63.116. For owners or operators complying with § 63.1405(f), initial compliance with the alternative standard shall be demonstrated as specified in paragraph (a)(6) of this section.

(e) *Initial compliance with batch process vent provisions.* An owner or operator of an affected source complying with the batch process vent standards in § 63.1406 or § 63.1407 shall demonstrate compliance using the procedures described in paragraphs (e)(1) through (e)(6) of this section.

(1) Except as provided in paragraph (a)(5) of this section, initial compliance with the batch process vent standards in § 63.1406 or § 63.1407 shall be demonstrated as specified in paragraphs (e)(1)(i) through (e)(1)(iii), as applicable.

(i) Initial compliance with the alternative standard specified in §§ 63.1406(d) and 63.1407(d) shall be demonstrated as specified in paragraph (a)(6) of this section.

(ii) Initial compliance with the kilogram of HAP per megagram of product emission limits in § 63.1406 shall be demonstrated using the procedures in paragraph (e)(2) of this section.

(iii) Initial compliance with the percent reduction requirements in § 63.1406 or § 63.1407 shall be demonstrated using the procedures in paragraph (e)(5) of this section.

(2) Each owner or operator shall determine continuous compliance with the kilogram of HAP per megagram of product emission limits specified in § 63.1406 by using the procedures in paragraphs (e)(2)(i) through (e)(2)(iii) of this section. For the first year, the owner or operator shall calculate a rolling average monthly emission rate each month based on the available data points (e.g., 5 data points after 5 months of operation). After the first year, a 12-month rolling average monthly emission rate shall be calculated each month based on the previous 12 monthly averages. Each month the average monthly emission rate shall be compared to the emission limit specified in § 63.1406. If the average monthly emission rate is greater than the specified emission limit, a violation of the emission limit has occurred, as described in § 63.1418(l).

(i) The monthly emission rate, kilograms of HAP per megagram of product, shall be determined at the end of each month using Equation 8 of this subpart:

$$ER = \frac{\sum_{i=1}^{n} E_i}{RP_M} \qquad [Eq. 8]$$

Where:

ER = Emission rate of organic HAP from reactor batch process vents, kg of HAP/Mg product.

E_i = Emission rate of organic HAP from reactor batch process vent i as determined using the procedures specified in paragraph (e)(2)(ii) of this section, kg/month.

RP_M = Amount of resin produced in one month as determined using the procedures specified in paragraph (e)(2)(iii) of this section, Mg/month.

n = Number of batch process vents.

(ii) The emission rate of organic HAP, in kilograms per batch cycle, from an individual batch process vent shall be determined based on either a performance test or design evaluation, as specified in paragraph (e)(2)(ii)(A) or (e)(2)(ii)(B) of this section. The monthly emission rate of organic HAP, in kilograms per month, from an individual batch process vent shall be determined 0using Equation 9 of this subpart and the procedures specified in paragraph (e)(2)(ii)(C) of this section:

$$E_i = \sum_{i=1}^{n} (N_i)\left(E_{cycle_i}\right) \qquad [Eq. 9]$$

Where:

E_i = Monthly emissions from a batch process vent, kg/month.

N_i = Number of type i batch cycles performed monthly, cycles/month.

$E_{cycle\ i}$ = Emissions from the batch process vent associated with a single type i batch cycle, as determined using the procedures specified in either paragraph (e)(2)(ii)(A) or (e)(2)(ii)(B) of this section, kg/batch cycle.

n = Number of different types of batch cycles that cause the emission of organic HAP from the batch process vent.

(A) For reactor batch process vents estimated through engineering assessment, as described in paragraph (e)(3)(vi) of this section, to emit less than 10 tons per year of uncontrolled emissions, the owner or operator may use either the procedures specified in paragraph (e)(3) of this section or engineering assessment to determine the emissions per batch cycle.

(B) For reactor batch process vents estimated through engineering assessment, as described in paragraph (e)(3)(vi) of this section, to emit 10 tons per year or greater of uncontrolled emissions, emissions shall be estimated using the procedures specified in paragraph (e)(3) of this section.

(C) Once emissions for a reactor batch process vent have been estimated as specified in either paragraph (e)(2)(ii)(A) or (e)(2)(ii)(B) of this section, the owner or operator may use the estimated emissions to determine E_i using Equation 9 of this subpart until the estimated emissions are no longer representative due to a process change or other reason known to the owner or operator.

(iii) The rate of resin produced, RP_M (Mg/month), shall be determined based on production records certified by the owner or operator to represent actual production for the month. A sample of the records selected by the owner or operator for this purpose shall be provided to the Administrator in the Precompliance Report, as specified in § 63.1419(e)(3).

(3) *Uncontrolled emissions.* Uncontrolled emissions for individual reactor batch process vents or individual non-reactor batch process vents shall be determined using the procedures specified in paragraphs (e)(3)(i) through (e)(3)(viii) of this section. To estimate emissions from a batch emissions episode, owners or operators may use either the emissions estimation equations in paragraphs (e)(3)(i) through (e)(3)(iv) of this section, or direct measurement as specified in paragraph (e)(3)(v) of this section. Engineering assessment may be used to estimate emissions from a batch emission episode only under the conditions described in paragraph (e)(3)(vi) of this section. In using the emissions estimation equations in paragraphs (e)(3)(i) through (e)(3)(iv) of this section, individual component vapor pressure and molecular weight may be obtained from standard references. Methods to determine individual HAP partial pressures in multicomponent systems are described in paragraph (e)(3)(ix) of this section. Other variables in the emissions estimation equations may be obtained through direct measurement, as defined in paragraph (e)(3)(v) of this section, through engineering assessment, as defined in paragraph (e)(3)(vi)(B) of this section, by process knowledge, or by any other appropriate means. Assumptions used in determining these variables must be documented. Once emissions for the batch emission episode have been determined using either the emissions estimation equations, direct measurement, or engineering assessment, emissions from a batch cycle shall be calculated in accordance with paragraph (e)(3)(vii) of this section, and annual emissions from the batch process vent shall be calculated in accordance with paragraph (e)(3)(viii) of this section.

(i) Organic HAP emissions from the purging of an empty vessel shall be calculated using Equation 10 of this subpart. Equation 10 of this subpart does not take into account evaporation of any residual liquid in the vessel:

$$E_{episode} = \frac{(V_{ves})(P)(MW_{wavg})}{RT}\left(1 - 0.37^{m}\right) \qquad [Eq.\ 10]$$

Where:

$E_{episode}$ = Emissions, kg/episode.

V_{ves} = Volume of vessel, m^3.

P = Total organic HAP partial pressure, kPa.

MW_{wavg} = Weighted average molecular weight of organic HAP in vapor, determined in accordance with paragraph (e)(3)(iv)(A)(*4*) of this section, kg/kmol.

R = Ideal gas constant, 8.314 $m^3 \bullet kPa/kmol \bullet K$.

T = Temperature of vessel vapor space, K.

m = Number of volumes of purge gas used.

(ii) Organic HAP emissions from the purging of a filled vessel shall be calculated using Equation 11 of this subpart:

$$E_{episode} = \frac{(y)(V_{dr})(P^2)(MW_{wavg})}{RT\left(P - \sum_{i=1}^{n} P_i x_i\right)}(T_m) \qquad [Eq.\ 11]$$

Where:

$E_{episode}$ = Emissions, kg/episode.

y = Saturated mole fraction of all organic HAP in vapor phase.

V_{dr} = Volumetric gas displacement rate, m^3/min.

P = Pressure in vessel vapor space, kPa.

MW_{wavg} = Weighted average molecular weight of organic HAP in vapor, determined in accordance with paragraph (e)(3)(iv)(A)(*4*) of this section, kg/kmol.

R = Ideal gas constant, 8.314 $m^3 \bullet kPa/kmol \bullet K$.

T = Temperature of vessel vapor space, K.

P_i = Vapor pressure of individual organic HAP i, kPa.

x_i = Mole fraction of organic HAP i in the liquid.

n = Number of organic HAP in stream.

T_m = Minutes/episode.

(iii) Emissions from vapor displacement due to transfer of material into or out of a vessel shall be calculated using Equation 12 of this subpart:

$$E_{episode} = \frac{(y)(V)(P)(MW_{wavg})}{RT} \qquad [Eq.\ 12]$$

Where:

$E_{episode}$ = Emissions, kg/episode.

y = Saturated mole fraction of all organic HAP in vapor phase.

V = Volume of gas displaced from the vessel, m^3.

P = Pressure in vessel vapor space, kPa.

MW_{wavg} = Weighted average molecular weight of organic HAP in vapor, determined in accordance with paragraph (e)(3)(iv)(A)(*4*) of this section, kg/kmol.

R = Ideal gas constant, 8.314 $m^3 \bullet kPa/kmol \bullet K$.

T = Temperature of vessel vapor space, K.

(iv) Emissions caused by the heating of a vessel shall be calculated using the procedures in either paragraph (e)(3)(iv)(A), (e)(3)(iv)(B), or (e)(3)(iv)(C) of this section, as appropriate.

(A) If the final temperature to which the vessel contents is heated is lower than 50 K below the boiling point of the HAP in the vessel, then emissions shall be calculated using the equations in paragraphs (e)(3)(iv)(A)(*1*) through (e)(3)(iv)(A)(*4*) of this section.

(*1*) Emissions caused by heating of a vessel shall be calculated using Equation 13 of this subpart. The assumptions made for this calculation are atmospheric pressure of 760 millimeters of mercury (mm Hg) and the displaced gas is always saturated with volatile organic compounds (VOC) vapor in equilibrium with the liquid mixture:

$$E_{episode} = \left[\frac{\sum_{i=1}^{n} (P_i)_{T1}}{101.325 - \sum_{i=1}^{n} (P_i)_{T1}} + \frac{\sum_{i=1}^{n} (P_i)_{T2}}{101.325 - \sum_{i=1}^{n} (P_i)_{T2}} \right] / 2 * (\Delta\eta) \, (MW_{wavg,T1} + MW_{wavg,T2}) / 2 \qquad \text{[Eq. 13]}$$

Where:

$E_{episode}$ = Emissions, kg/episode.

$(P_i)_{T1}$, $(P_i)_{T2}$ = Partial pressure (kPa) of each organic HAP i in the vessel headspace at initial (T1) and final (T2) temperature.

n = Number of organic HAP in stream.

$\Delta\eta$ = Number of kilogram-moles (kg-moles) of gas displaced, determined in accordance with paragraph (e)(3)(iv)(A)(*2*) of this section.

101.325 = Constant, kPa.

$(MW_{WAVG,T1})$, $(MW_{WAVG,T2})$ = Weighted average molecular weight of total organic HAP in the displaced gas stream, determined in accordance with paragraph (e)(3)(iv)(A)(*4*) of this section, kg/kmol.

(*2*) The moles of gas displaced, $\Delta\eta$, is calculated using Equation 14 of this subpart:

$$\Delta\eta = \frac{V_{fs}}{R} \left[\left(\frac{Pa_1}{T_1} \right) - \left(\frac{Pa_2}{T_2} \right) \right] \qquad \text{[Eq. 14]}$$

Where:

$\Delta\eta$ = Number of kg-moles of gas displaced.

V_{fs} = Volume of free space in the vessel, m^3.

R = Ideal gas constant, 8.314 $m^3 \bullet kPa/kmol \bullet K$.

Pa_1 = Initial noncondensible gas partial pressure in the vessel, kPa.

Pa_2 = Final noncondensible gas partial pressure, kPa.

T_1 = Initial temperature of vessel, K.

T_2 = Final temperature of vessel, K.

(*3*) The initial and final pressure of the noncondensible gas in the vessel shall be calculated using Equation 15 of this subpart:

$$Pa = 101.325 - \sum_{i=1}^{n} (p_i)_T \qquad \text{[Eq. 15]}$$

Where:

Pa = Initial or final partial pressure of noncondensible gas in the vessel headspace, kPa.

101.325 = Constant, kPa.

$(P_i)_T$ = Partial pressure of each organic HAP i in the vessel headspace, kPa, at the initial or final temperature (T1 or T2).

n = Number of organic HAP in stream.

(*4*) The weighted average molecular weight of organic HAP in the displaced gas, MW_{wavg}, shall be calculated using Equation 16 of this subpart:

$$MW_{wavg} = \frac{\sum_{i=1}^{n} (\text{mass of C})_i \; (\text{molecular weight of C})_i}{\sum_{i=1}^{n} (\text{mass of C})_i} \qquad \text{[Eq. 16]}$$

Where:

C = Organic HAP component.

n = Number of organic HAP components in stream.

(B) If the vessel contents are heated to a temperature greater than 50 K below the boiling point, then emissions from the heating of a vessel shall be calculated as the sum of the emissions calculated in accordance with paragraphs (e)(3)(iv)(B)(*1*) and (e)(3)(iv)(B)(*2*) of this section.

(*1*) For the interval from the initial temperature to the temperature 50 K below the boiling point, emissions shall be calculated using Equation 13 of this subpart, where T_2 is the temperature 50 K below the boiling point.

(*2*) For the interval from the temperature 50 K below the boiling point to the final temperature, emissions shall be calculated as the summation of emissions for each 5 K increment, where the emissions for each increment shall be calculated using Equation 13 of this subpart.

(*i*) If the final temperature of the heatup is at or lower than 5 K below the boiling point, the final temperature for the last increment shall be the final temperature for the heatup, even if the last increment is less than 5 K.

(*ii*) If the final temperature of the heatup is higher than 5 K below the boiling point, the final temperature for the last increment shall be the temperature 5 K below the boiling point, even if the last increment is less than 5 K.

(*iii*) If the vessel contents are heated to the boiling point and the vessel is not operating with a condenser, the final temperature for the final increment shall be the temperature 5 K below the

boiling point, even if the last increment is less than 5 K.

(C) If the vessel is operating with a condenser, and the vessel contents are heated to the boiling point, the process condenser, as defined in § 63.1402, is considered part of the process. Emissions shall be calculated as the sum of emissions calculated using Equation 13 of this subpart, which calculates emissions due to heating the vessel contents to the temperature of the gas existing the condenser, and emissions calculated using Equation 12 of this subpart, which calculates emissions due to the displacement of the remaining saturated noncondensible gas in the vessel. The final temperature in Equation 13 of this subpart shall be set equal to the exit gas temperature of the condenser. Equation 12 of this subpart shall be used as written below in Equation 17 of this subpart, using free space volume, and T is set equal to the condenser exit gas temperature:

$$E_{episode} = \frac{(y)(V_{fs})(P)(MW_{wavg})}{RT} \qquad [Eq.\ 17]$$

Where:

$E_{episode}$ = Emissions, kg/episode.

y = Saturated mole fraction of all organic HAP in vapor phase.

V_{fs} = Volume of the free space in the vessel, m^3.

P = Pressure in vessel vapor space, kPa.

MW_{wavg} = Weighted average molecular weight of organic HAP in vapor, determined in accordance with paragraph (e)(3)(iv)(A)(*4*) of this section, kg/kmol.

R = Ideal gas constant, 8.314 $m^3 \bullet kPa/kmol \bullet K$.

T = Temperature of condenser exit stream, K.

(v) The owner or operator may estimate annual emissions for a batch emission episode by direct measurement. The procedures specified in paragraph (b) of this section shall be used for direct measurement. If direct measurement is used, the owner or operator shall perform a test for the duration of a representative batch emission episode. Alternatively, the owner or operator may perform a test during only those periods of the batch emission episode for which the emission rate for the entire episode can be determined or for which the emissions are greater than the average emission rate of the batch emission episode. The owner or operator choosing either of these alternative options shall develop an emission profile for the entire batch emission episode, based on either process knowledge or test data collected, to demonstrate that test periods are representative. The emission profile shall be included in the site-specific test plan required by § 63.1419(e)(7)(ii), as specified by paragraph (a)(3)(v) of this section. Examples of information that could constitute process knowledge include calculations based on material balances and process stoichiometry. Previous test results may be used to develop the emission profile provided the results are still relevant to the current batch process vent conditions.

(vi) Engineering assessment may be used to estimate emissions from a batch emission episode, if the criteria in paragraph (e)(3)(vi)(A) of this section are met. Data or other information used to demonstrate that the criteria in paragraph (e)(3)(vi)(A) of this section have been met shall be reported as specified in paragraph (e)(3)(vi)(C) of this section. Paragraph (e)(3)(vi)(B) of this section defines engineering assessment, for the purposes of estimating emissions from a batch emissions episode. All data, assumptions, and procedures used in an engineering assessment shall be documented.

(A) If the criteria specified in paragraphs (e)(3)(vi)(A)(*1*), (e)(3)(vi)(A)(*2*), and (e)(3)(vi)(A)(*3*) of this section are met for a specific batch emission episode, the owner or operator may use engineering assessment, as described in paragraph (e)(3)(vi)(B) of this section, to estimate emissions from that batch emission episode, and the owner or operator is not required to use the emissions estimation equations described in paragraphs (e)(3)(i) through (e)(3)(iv) of this section to estimate emissions from that batch emission episode.

(*1*) Previous test data, where the measurement of organic HAP emissions was an outcome of the test, show a greater than 20 percent discrepancy between the test value and the value estimated using the applicable equations in paragraphs (e)(3)(i) through (e)(3)(iv) of this section. Paragraphs (e)(3)(vi)(A)(*1*)(*i*) and (e)(3)(vi)(A)(*1*)(*ii*) of this section describe test data that will be acceptable under this paragraph (e)(3)(vi)(A)(*1*).

(*i*) Test data for the batch emission episode obtained during production of the product for which the demonstration is being made.

(*ii*) Test data obtained for a batch emission episode from another process train, where the test data were obtained during production of the product for which the demonstration is being made. Test data from another process train may be used only if the owner or operator can demonstrate that the data are representative of the batch emission episode for which the demonstration is being made, taking into account the nature, size, operating conditions, production rate, and sequence of process steps (e.g., reaction, distillation, etc.) of the equipment in the other process train.

(*2*) Previous test data obtained during the production of the product for which the demonstration is being made, for the batch emission episode with the highest organic HAP emissions on a mass basis, show a greater than 20 percent discrepancy between the test value and the value estimated using the applicable equations in paragraphs (e)(3)(i) through (e)(3)(iv) of this section. If the criteria in this paragraph (e)(3)(vi)(A)(*2*) are met, then engineering assessment may be used for all batch emission episodes associated with that batch cycle for the batch unit operation.

(*3*) The owner or operator has requested and been granted approval to use engineering assessment to estimate emissions from a batch emissions episode. The request to use engineering assessment to estimate emissions from a batch emissions episode shall contain sufficient information and data to demonstrate to the Administrator that engineering assessment is an accurate means of estimating emissions for that particular batch emissions episode. The request to use engineering assessment to estimate emissions for a batch emissions episode shall be submitted in the Precompliance Report required under § 63.1419(e)(3).

(B) Engineering assessment includes, but is not limited to, the following:

(*1*) Previous test results, provided the tests are representative of current operating practices;

(*2*) Bench-scale or pilot-scale test data obtained under conditions representative of current process operating conditions;

(*3*) Flow rate or organic HAP emission rate specified or implied within a

permit limit applicable to the batch process vent; and

(*4*) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(*i*) Use of material balances;

(*ii*) Estimation of flow rate based on physical equipment design such as pump or blower capacities;

(*iii*) Estimation of organic HAP concentrations based on saturation conditions; and

(*iv*) Estimation of organic HAP concentrations based on grab samples of the liquid or vapor.

(C) Data or other information used to demonstrate that the criteria in paragraph (e)(3)(vi)(A) of this section have been met shall be reported as specified in paragraphs (e)(3)(vi)(C)(*1*) and (e)(3)(vi)(C)(*2*) of this section.

(*1*) Data or other information used to demonstrate that the criteria in paragraphs (e)(3)(vi)(A)(*1*) and (e)(3)(vi)(A)(*2*) of this section have been met shall be reported in the Notification of Compliance Status, as required in § 63.1419(e)(5).

(*2*) The request for approval to use engineering assessment to estimate emissions from a batch emissions episode as allowed under paragraph (e)(3)(vi)(A)(*3*) of this section, and sufficient data or other information for demonstrating to the Administrator that engineering assessment is an accurate means of estimating emissions for that particular batch emissions episode, shall be submitted with the Precompliance Report, as required in § 63.1419(e)(3).

(vii) For each batch process vent, the organic HAP emissions associated with a single batch cycle shall be calculated using Equation 18 of this subpart:

$$E_{cycle} = \sum_{i=1}^{n} E_{episode_i} \qquad [Eq.\ 18]$$

Where:

E_{cycle} = Emissions for an individual batch cycle, kg/batch cycle.

$E_{episode\ i}$ = Emissions from batch emission episode i, kg/episode.

n = Number of batch emission episodes for the batch cycle.

(viii) Annual organic HAP emissions from a batch process vent shall be calculated using Equation 19 of this subpart:

$$AE = \sum_{i=1}^{n} \left(N_i\right)\left(E_{cycle_i}\right) \qquad [Eq.\ 19]$$

Where:

AE = Annual emissions from a batch process vent, kg/yr.

N_i = Number of type i batch cycles performed annually, cycles/year.

$E_{cycle\ i}$ = Emissions from the batch process vent associated with a single type i batch cycle, as determined in paragraph (e)(3)(vii) of this section, kg/batch cycle.

n = Number of different types of batch cycles that cause the emission of organic HAP from the batch process vent.

(ix) Individual HAP partial pressures in multicomponent systems shall be determined using the appropriate method specified in paragraphs (e)(3)(ix)(A) through (e)(3)(ix)(C) of this section:

(A) If the components are miscible, use Raoult's law to calculate the partial pressures;

(B) If the solution is a dilute aqueous mixture, use Henry's law constants to calculate partial pressures;

(C) If Raoult's law or Henry's law are not appropriate or available, the owner or operator may use any of the options in paragraphs (e)(3)(ix)(C)(*1*), (e)(3)(ix)(C)(*2*), and (e)(3)(ix)(C)(*3*) of this section:

(*1*) Experimentally obtained activity coefficients, Henry's law constants, or solubility data;

(*2*) Models, such as group-contribution models, to predict activity coefficients; or

(*3*) Assume the components of the system behave independently and use the summation of all vapor pressures from the HAPs as the total HAP partial pressure.

(*4*) [Reserved]

(5) *Batch process vent testing and procedures for compliance with § 63.1406 or § 63.1407.* Owners or operators shall comply with the procedures specified in paragraph (e)(5)(i) or (e)(5)(ii) of this section in order to determine the control efficiency of the control device. Owners or operators using a small control device shall follow the procedures in paragraph (e)(5)(i) of this section. Owners or operators using a large control device shall follow the procedures in paragraph (e)(5)(ii) of this section. An owner or operator shall determine the percent reduction for the batch cycle for an individual reactor batch process vent when complying with § 63.1406, and shall determine the overall percent reduction for the collection of non-reactor batch process vents within the affected source when complying with § 63.1407, using the procedures specified in paragraph (e)(5)(iii) of this section. For purposes of this paragraph (e)(5), the term ''batch emission episode'' shall have the meaning ''period of the batch emission episode selected for control,'' which may be the entire batch emission episode or may only be a portion of the batch emission episode.

(i) *Small control devices.* The control efficiency for a small control device shall be determined through the design evaluation procedures described in paragraphs (e)(5)(i)(A) through (e)(5)(i)(C) of this section or by conducting a performance test in accordance with paragraph (e)(5)(ii) of this section.

(A) *Design evaluation.* The design evaluation shall include documentation demonstrating the control device efficiency to be used in paragraph (e)(5)(iii) of this section for determining the percent reduction for the batch cycle for an individual reactor batch process vent when complying with § 63.1406 or the overall percent reduction for the collection of non-reactor batch process vents within the affected source when complying with § 63.1407. This documentation shall comply with the provisions in paragraph (a)(2) of this section. The design evaluation shall also include the value(s) and basis for the parameter monitoring level(s) required by § 63.1418. The design evaluation shall comply with either paragraph (e)(5)(i)(B) or (e)(5)(i)(C) of this section. Owners or operators shall comply with paragraph (e)(5)(i)(B) of this section when the control device efficiency to be used in paragraph (e)(5)(iii) of this section varies between batch emission episodes or varies within a batch emission episode. Paragraph (e)(5)(i)(C) of this section shall be complied with when an owner or operator chooses to demonstrate that the control device achieves the same or better efficiency for all emissions selected for control.

(B) The design evaluation shall address the control device efficiency for each batch emission episode that the owner or operator selects to control.

(C) The design evaluation shall demonstrate that the control device achieves the same or higher efficiency for all emissions that the owner or operator selects to control.

(ii) *Large control devices.* The control efficiency for a large control device shall be determined by conducting a performance test. Performance tests shall be conducted as specified in paragraph (e)(5)(ii)(A) or (e)(5)(ii)(B) of this section. An owner or operator may test some batch emission episodes following the procedures in paragraph (e)(5)(ii)(A) of this section and may test others following paragraph (e)(5)(ii)(B) of this section; the procedures in

paragraphs (e)(5)(ii)(A) and (e)(5)(ii)(B) of this section are not exclusive of each other. Emissions per batch emission episode shall be determined as specified in paragraphs (e)(5)(ii)(C) and (e)(5)(ii)(D) of this section. The control efficiency of the control device shall be determined as specified in paragraphs (e)(5)(ii)(E) and (e)(5)(ii)(F) of this section.

(A) A performance test shall be performed for each batch emission episode, or portion thereof, in the batch cycle for an individual reactor batch process vent that the owner or operator selects to control as part of achieving the required percent reduction for the batch cycle specified in § 63.1406. A performance test shall be performed for each batch emission episode, or portion thereof, from each non-reactor batch process vent within the affected source that the owner or operator selects to control as part of achieving the overall percent reduction specified in § 63.1407. Performance tests shall be conducted using the procedures specified in paragraph (b) of this section and following the procedures in paragraphs (e)(5)(ii)(A)(*1*) through (e)(5)(ii)(A)(*4*) of this section.

(*1*) Only one test (i.e., only one run) is required for each batch emission episode selected by the owner or operator for control.

(*2*) Except as specified in paragraph (e)(5)(ii)(A)(*3*) of this section, the performance test shall be conducted over the entire period of emissions selected by the owner or operator for control.

(*3*) An owner or operator may choose to test only those periods of the batch emission episode during which the emission rate for the entire batch emission episode can be determined or during which the emissions are greater than the average emission rate of the batch emission episode. The owner or operator choosing either of these options shall develop an emission profile for the entire batch emission episode, based on either process knowledge or test data collected, to demonstrate that test periods are representative. The emission profile shall be included in the site-specific test plan required by § 63.1419(e)(7)(ii), as specified by paragraph (a)(3)(v) of this section. Examples of information that could constitute process knowledge include calculations based on material balances and process stoichiometry. Previous test results may be used to develop the emission profile provided the results are still relevant to the current batch process vent conditions.

(*4*) When choosing sampling sites using the methods specified in paragraph (b)(1) of this section, inlet sampling sites shall be located as specified in paragraphs (e)(5)(ii)(A)(*4*)(*i*) and (e)(5)(ii)(A)(*4*)(*ii*) of this section. Outlet sampling sites shall be located at the outlet of the control device prior to release to the atmosphere.

(*i*) The control device inlet sampling site shall be located at the exit from the batch unit operation, after any process condensers and before any control device.

(*ii*) If a batch process vent is introduced with the combustion air or as a secondary fuel into a boiler or process heater with a design capacity less than 44 megawatts, selection of the location of the inlet sampling sites shall ensure the measurement of total organic HAP concentrations in all batch process vents and primary and secondary fuels introduced into the boiler or process heater.

(B) An owner or operator is not required to conduct a performance test for each batch emission episode if the owner or operator can demonstrate that control device efficiency determined from a performance test on a single batch emission episode is equivalent to or less than the control device efficiency that will be achieved for other batch emission episodes. Performance tests shall be conducted using the procedures specified in paragraph (b) of this section and as specified in paragraphs (e)(5)(ii)(B)(*1*) and (e)(5)(ii)(B)(*2*) of this section. Owners or operators complying with this paragraph (e)(5)(ii)(B) shall comply with paragraphs (e)(5)(ii)(B)(*3*) through (e)(5)(ii)(B)(*5*) of this section. An owner or operator using the procedures specified in this paragraph (e)(5)(ii)(B) is restricted to the control device efficiency demonstrated during the performance test for the purposes of paragraph (e)(5)(iii) of this section.

(*1*) A performance test shall be conducted for the batch emission episode for which the owner or operator demonstrates that performance of the control device will be of equivalent or greater efficiency for all other batch emission episodes. For purposes of this paragraph (e)(5)(ii)(B)(*1*), the phrase ''all other batch emission episodes'' is restricted to those batch emission episodes for which the owner or operator shall use the control device efficiency determined from the performance test for compliance demonstration purposes.

(*2*) The procedures specified in paragraphs (e)(5)(ii)(A)(*1*) through (e)(5)(ii)(A)(*4*) shall be followed.

(*3*) The owner or operator shall develop an emission profile for the emissions venting to the control device in order to demonstrate the representativeness of the planned test. The emission profile shall include HAP loading rate, expressed as mass per unit time, versus time for all batch emission episodes that could vent to the control device. The emission profile shall cover a period of time that is sufficient to include all batch emission episodes venting to the control device and shall consider production scheduling. The HAP emissions for batch emission episodes shall be calculated using the procedures specified in paragraph (e)(3) of this section. The HAP loading rates for batch emission episodes shall be calculated by dividing HAP emissions by the duration of the emission events. The emission profile shall be included in the site-specific test plan required by § 63.1419(e)(7)(ii), as specified by paragraph (a)(3)(v) of this section. Previous test results may be used to develop the emission profile provided the results are still relevant to the current batch process vent conditions.

(*4*) The concept provided by paragraph (e)(5)(ii)(B) of this section may be used multiple times to address different sets of batch emission episodes within a batch process vent.

(*5*) The concept provided by paragraph (e)(5)(ii)(B) of this section may be used to address a subset of the total batch emission episodes within a batch process vent.

(C) If an integrated sample is taken over the entire test period to determine average batch vent concentration of total organic HAP, emissions per batch emission episode shall be calculated using Equations 20 and 21 of this subpart:

$$E_{episode,inlet} = K\left[\sum_{j=1}^{n}\left(C_{j,inlet}\right)\left(M_j\right)\right]\left(AFR_{inlet}\right)\left(T_h\right) \qquad [Eq.\ 20]$$

$$E_{episode,outlet} = K\left[\sum_{j=1}^{n}\left(C_{j,outlet}\right)\left(M_j\right)\right]\left(AFR_{outlet}\right)\left(T_h\right) \quad [Eq.\ 21]$$

Where:

$E_{episode}$ = Inlet or outlet emissions, kg/episode.

K = Constant, 2.494×10^{-6} $(ppmv)^{-1}$ (gm-mole/scm) (kg/gm) (min/hr), where standard temperature is 20°C.

C_j = Average inlet or outlet concentration of sample organic HAP component j of the gas stream for the batch emission episode, dry basis, ppmv.

M_j = Molecular weight of sample organic HAP component j of the gas stream, gm/gm-mole.

AFR = Average inlet or outlet flow rate of gas stream for the batch emission episode, dry basis, scmm.

T_h = Hours/episode.

n = Number of organic HAP in stream.

(D) If grab samples are taken to determine average batch vent concentration of total organic HAP, emissions shall be calculated according to paragraphs (e)(5)(ii)(D)(*1*) and (e)(5)(ii)(D)(*2*) of this section.

(*1*) For each measurement point, the emission rates shall be calculated using Equations 22 and 23 of this subpart:

$$E_{point,inlet} = K\left[\sum_{j=1}^{n} C_j M_j\right] FR_{inlet} \quad [Eq.\ 22]$$

$$E_{point,outlet} = K\left[\sum_{j=1}^{n} C_j M_j\right] FR_{outlet} \quad [Eq.\ 23]$$

Where:

E_{point} = Inlet or outlet emission rate for the measurement point, kg/hr.

K = Constant, 2.494 x 10^{-6} $(ppmv)^{-1}$ (gm-mole/scm) (kg/gm) (min/hr), where standard temperature is 20 °C.

C_j = Inlet or outlet concentration of sample organic HAP component j of the gas stream, dry basis, ppmv.

M_j = Molecular weight of sample organic HAP component j of the gas stream, gm/gm-mole.

FR = Inlet or outlet flow rate of gas stream for the measurement point, dry basis, scmm.

n = Number of organic HAP in stream.

(*2*) The emissions per batch emission episode shall be calculated using Equations 24 and 25 of this subpart:

$$E_{episode,inlet} = (DUR)\left[\sum_{i=1}^{n} \frac{E_{point,inlet,i}}{n}\right] \quad [Eq.\ 24]$$

$$E_{episode,outlet} = (DUR)\left[\sum_{i=1}^{n} \frac{E_{point,outlet,i}}{n}\right] \quad [Eq.\ 25]$$

Where:

$E_{episode}$ = Inlet or outlet emissions, kg/episode.

DUR = Duration of the batch emission episode, hr/episode.

$E_{point,\ i}$ = Inlet or outlet emissions for measurement point i, kg/hr.

n = Number of measurements.

(E) The control efficiency for the control device shall be calculated using Equation 26 of this subpart:

$$R = \frac{\sum_{i=1}^{n} E_{inlet,i} - \sum_{i=1}^{n} E_{outlet,i}}{\sum_{i=1}^{n} E_{inlet,i}}(100) \quad [Eq.\ 26]$$

Where:

R = Control efficiency of control device, percent.

E_{inlet} = Mass rate of total organic HAP for batch emission episode i at the inlet to the control device as calculated under paragraph (e)(5)(ii)(C) or (e)(5)(ii)(D) of this section, kg/hr.

E_{outlet} = Mass rate of total organic HAP for batch emission episode i at the outlet of the control device, as calculated under paragraph (e)(5)(ii)(C) or (e)(5)(ii)(D) of this section, kg/hr.

n = Number of batch emission episodes in the batch cycle selected to be controlled.

(F) If the batch process vent entering a boiler or process heater with a design capacity less than 44 megawatts is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total organic HAP across the device shall be determined by comparing the total organic HAP in all combusted batch process vents and primary and secondary fuels with the total organic HAP exiting the combustion device, respectively.

(iii) The percent reduction for the batch cycle for an individual reactor batch process vent and the overall percent reduction for the collection of non-reactor batch process vents within the affected source shall be determined using Equation 27 of this subpart and the control device efficiencies specified in paragraphs (e)(5)(iii)(A) through (e)(5)(iii)(C) of

this section. All information used to calculate the batch cycle percent reduction for an individual reactor batch process vent, including a definition of the batch cycle identifying all batch emission episodes, shall be recorded as specified in § 63.1408(b)(2). All information used to calculate the overall percent reduction for the collection of non-reactor batch process vents within the affected source, including a list of all batch emission episodes from the collection of non-reactor batch process vents within the affected source, shall be recorded as specified in § 63.1408(b)(2). This information shall include identification of those batch emission episodes, or portions thereof, selected for control. This information shall include estimates of uncontrolled emissions for those batch emission episodes, or portions thereof, that are not selected for control, determined as specified in paragraph (e)(5)(iii)(D) or (e)(5)(iii)(E) of this section:

$$PR = \frac{\sum_{i=1}^{n} E_{unc} + \sum_{i=1}^{n} E_{inlet,con} - (1-R)\sum_{i=1}^{n} E_{inlet,con}}{\sum_{i=1}^{n} E_{unc} + \sum_{i=1}^{n} E_{inlet,con}} \quad [Eq. 27]$$

Where:

PR = Percent reduction.

E_{unc} = Mass rate of total organic HAP for uncontrolled batch emission episode i, kg/hr.

$E_{inlet, con}$ = Mass rate of total organic HAP for controlled batch emission episode i at the inlet to the control device, kg/hr.

R = Control efficiency of control device as specified in paragraphs (e)(5)(iii)(A) through (e)(5)(iii)(C) of this section. The value of R may vary between batch emission episodes.

n = Number of uncontrolled batch emission episodes, controlled batch emission episodes, and control devices. The value of n is not necessarily the same for these three items.

(A) If a performance test is required by paragraph (e)(5)(ii) of this section, or if an owner or operator chooses to conduct a performance test using the procedures specified in paragraph (e)(5)(ii)(A) or (e)(5)(ii)(B) of this section, the control efficiency of the control device shall be as determined in paragraph (e)(5)(ii)(E) of this section.

(B) If a performance test is not required by paragraph (e)(5)(ii) of this section for a combustion control device, as specified in paragraph (a)(5) or (e)(6) of this section, the control efficiency shall be 98 percent. The control efficiency for a flare shall be 98 percent.

(C) If a performance test is not required by paragraph (e)(5) of this section, the control efficiency shall be based on the design evaluation specified in paragraph (e)(5)(i) of this section.

(D) For batch emission episodes estimated through engineering assessment, as described in paragraph (e)(3)(vi) of this section, to emit less than 10 tons per year of uncontrolled emissions, the owner or operator may use either the procedures specified in paragraph (e)(3) of this section or engineering assessment to determine the emissions per batch cycle.

(E) For batch emission episodes estimated through engineering assessment, as described in paragraph (e)(3)(vi) of this section, to emit 10 tons per year or greater of uncontrolled emissions, emissions shall be estimated using the procedures specified in paragraph (e)(3) of this section.

(6) An owner or operator is not required to conduct a performance test for the following:

(i) Any control device for which a performance test was conducted for determining compliance with a regulation promulgated by the EPA and the test was conducted using the same Methods specified in this section and either no deliberate process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes. The results of the previous performance test shall be used to demonstrate compliance.

(ii) A condenser system that is equipped with a temperature sensor and recorder, such that the condenser exit gas temperature can be measured at 15-minute intervals when the condenser is functioning in cooling a vent stream. The condenser exit gas temperature shall be used to calculate removal efficiency of the condenser in demonstrating compliance.

(f) *Initial compliance with wastewater provisions.* As specified in § 63.1414, initial compliance with the control requirements of § 63.1414 shall be demonstrated using the procedures specified in §§ 63.143 and 63.145, as appropriate.

(g) Notwithstanding any other provision of this subpart, if an owner or operator uses a flare to comply with any of the requirements of this subpart, the owner or operator shall comply with paragraphs (g)(1) through (g)(3) of this section. The owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet organic HAP concentration. If a compliance demonstration has been conducted previously for a flare, using the techniques specified in paragraphs (g)(1) through (g)(3) of this section, that compliance demonstration may be used to satisfy the requirements of this paragraph if either no deliberate process changes have been made since the compliance demonstration, or the results of the compliance demonstration reliably demonstrate compliance despite process changes:

(1) Conduct a visible emission test using the techniques specified in § 63.11(b)(4);

(2) Determine the net heating value of the gas being combusted, using the techniques specified in § 63.11(b)(6); and

(3) Determine the exit velocity using the techniques specified in either § 63.11(b)(7)(i) (and § 63.11(b)(7)(iii), where applicable) or § 63.11(b)(8), as appropriate.

§ 63.1418 Monitoring requirements.

(a) *General requirements.* Each owner or operator of an emission point located at an affected source that uses a control device to comply with the requirements of this subpart and has one or more parameter monitoring level requirements specified under this subpart, shall install the monitoring equipment specified in paragraph (b) of this section in order to demonstrate continued compliance with the provisions of this subpart. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written

procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(1) This monitoring equipment shall be in operation at all times when emissions that the owner or operator has selected to control, as allowed under §§ 63.1406 and 63.1407, are vented to the control device and shall be in operation at all times when emissions that are required to be controlled, as required under §§ 63.1404, 63.1405, and 63.1414, are vented to the control device.

(2) Except as otherwise provided in this subpart, the owner or operator shall operate control devices such that the daily average, batch cycle daily average, or block average of monitored parameters, established as specified in paragraph (c) of this section, remains above the minimum level or below the maximum level, as appropriate. The option of conducting parameter monitoring for batch process vents on a batch cycle daily average basis or a block average basis is described in § 63.1408(c).

(3) As specified in § 63.1419(e)(5), all established parameter monitoring levels, along with their supporting documentation and the definition of an operating day or block, shall be approved as part of and incorporated into the Notification of Compliance Status. The definition of operating day or block shall specify the times at which an operating day or block begins and ends.

(4) Parameter monitoring levels may be based upon a prior performance test conducted for determining compliance with a regulation promulgated by EPA, and the owner or operator is not required to conduct a performance test, provided that the prior performance test was conducted using the same Methods specified in this subpart and either no deliberate process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

(5) For batch process vents complying with § 63.1417(e)(5), parameter monitoring levels established as specified in this section shall reflect the control efficiency determined to be required during the initial compliance demonstration so that the specified percent reduction from § 63.1406 or § 63.1407, as appropriate, is met.

(6) For control devices controlling less than 1 ton per year of uncontrolled HAP emissions, monitoring shall consist of a daily verification that the control device is operating properly. If the control device is used to control batch process vents alone or in combination with other emission points, the verification may be on a per batch cycle basis. This verification shall include, but not be limited to, a daily or per batch demonstration that the unit is working as designed. The procedure for this demonstration shall be submitted for review and approval as part of the Precompliance Report required by § 63.1419(e)(3).

(7) Nothing in this section shall be construed to allow a monitoring parameter excursion caused by an activity that violates other applicable provisions of subpart A, F, or G of this part.

(b) *Monitoring equipment.* The monitoring equipment specified in paragraphs (b)(1) through (b)(8) of this section shall be installed as specified in paragraph (a) of this section. The parameters to be monitored are specified in Table 4 of this subpart.

(1) Where a scrubber is used, the following monitoring equipment is required.

(i) A pH monitoring device equipped with a continuous recorder to monitor the pH of the scrubber effluent.

(ii) A flow measurement device equipped with a continuous recorder shall be located at the scrubber influent for liquid flow. Gas stream flow shall be determined using one of the procedures specified in paragraphs (b)(1)(ii)(A) through (b)(1)(ii)(C) of this section.

(A) The owner or operator may determine gas stream flow using the design blower capacity, with appropriate adjustments for pressure drop.

(B) If the scrubber is subject to regulations in 40 CFR parts 264 through 266 that have required a determination of the liquid to gas (L/G) ratio prior to the applicable compliance date for this subpart, the owner or operator may determine gas stream flow by the method that had been utilized to comply with those regulations. A determination that was conducted prior to the compliance date for this subpart may be utilized to comply with this subpart if it is still representative.

(C) The owner or operator may prepare and implement a gas stream flow determination plan that documents an appropriate method which will be used to determine the gas stream flow. The plan shall require determination of gas stream flow by a method which will at least provide a value for either a representative or the highest gas stream flow anticipated in the scrubber during representative operating conditions other than start-ups, shutdowns, or malfunctions. The plan shall include a description of the methodology to be followed and an explanation of how the selected methodology will reliably determine the gas stream flow, and a description of the records that will be maintained to document the determination of gas stream flow. The owner or operator shall maintain the plan as specified in § 63.1419(a).

(2) Where an absorber is used, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device are required, each equipped with a continuous recorder.

(3) Where a condenser is used, a condenser exit temperature (product side) monitoring device equipped with a continuous recorder is required.

(4) Where a carbon adsorber is used, an integrating regeneration steam flow or nitrogen flow, or the vacuum level monitoring device having an accuracy of ±10 percent of the flow rate or level, or better, capable of recording the total regeneration steam flow or nitrogen flow, or the vacuum level for each regeneration cycle; and a carbon bed temperature monitoring device, capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle are required.

(5) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(i) Where an incinerator other than a catalytic incinerator is used, the temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(6) Where a flare is used, a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame is required.

(7) Where a boiler or process heater of less than 44 megawatts design heat input capacity is used, a temperature monitoring device in the firebox equipped with a continuous recorder is required. Any boiler or process heater in which all vent streams are introduced with the primary fuel or are used as the primary fuel is exempt from this requirement.

(8) As an alternate to paragraphs (b)(1) through (b)(7) of this section, the owner or operator may install an organic monitoring device equipped with a

continuous recorder. Said organic monitoring device shall meet the requirements of Performance Specification 8 or 9 of 40 CFR part 60, appendix B, and shall be installed, calibrated, and maintained according to § 63.6.

(c) *Establishment of parameter monitoring levels.* The owner or operator of a control device that has one or more parameter monitoring level requirements specified under this subpart, or specified under subparts referenced by this subpart, shall establish a maximum or minimum level, as denoted on Table 5 of this subpart, for each measured parameter using the procedures specified in paragraph (d) or (e) of this section and as specified in paragraph (c)(1) or (c)(2) of this section.

(1) *Small control devices.* Except as provided in paragraph (a)(6) of this section, for control devices controlling less than 10 tons per year of uncontrolled HAP emissions for which a performance test is not required, the parameter monitoring levels shall be set based on the design evaluation required in § 63.1417(a)(1). When setting the parameter monitoring level(s) based on the design evaluation, the owner or operator shall submit the information specified in § 63.1419(e)(3) for review and approval as part of the Precompliance Report.

(2) *Large control devices.* For control devices controlling 10 tons per year of uncontrolled HAP emissions or more, the parameter shall be established as specified in paragraph (d) or (e) of this section. When setting the parameter monitoring level(s) using the procedures specified in paragraph (e) of this section, the owner or operator shall submit the information specified in § 63.1419(e)(3) for review and approval as part of the Precompliance Report.

(d) *Establishment of parameter monitoring levels based on performance tests.* Level(s) established under this paragraph (d) shall be based on the parameter values measured during the performance test.

(1) [Reserved]

(2) *Emission points other than batch process vents.* During initial compliance testing, the appropriate parameter shall be continuously monitored during the required 1-hour test runs. The monitoring level(s) shall then be established as the average of the maximum (or minimum) point values from the three test runs. The average of the maximum values shall be used when establishing a maximum level, and the average of the minimum values shall be used when establishing a minimum level.

(3) *Batch process vents.* The monitoring level(s) shall be established using the procedures specified in paragraph (d)(3)(i) or (d)(3)(ii) of this section.

(i) If more than one batch emission episode or more than one portion of a batch emission episode has been selected to be controlled, a single level for the batch cycle shall be calculated as follows:

(A) During initial compliance testing, the appropriate parameter shall be monitored continuously and recorded once every 15 minutes at all times when batch emission episodes, or portions thereof, selected to be controlled are vented to the control device. A minimum of three recorded values must be obtained for each batch emission episode, or portion thereof, regardless of the length of time emissions are occurring.

(B) The average monitored parameter value shall be calculated for each batch emission episode, or portion thereof, in the batch cycle selected to be controlled. The average shall be based on all values measured during the required performance test.

(C) If the level to be established is a maximum operating parameter, the level shall be defined as the minimum of the average parameter values from each batch emission episode, or portion thereof, in the batch cycle selected to be controlled (i.e., identify the emission episode, or portion thereof, which requires the lowest parameter value in order to assure compliance; the average parameter value that is necessary to assure compliance for that emission episode, or portion thereof, shall be the level for all emission episodes, or portions thereof, in the batch cycle that are selected to be controlled).

(D) If the level to be established is a minimum operating parameter, the level shall be defined as the maximum of the average parameter values from each batch emission episode, or portion thereof, in the batch cycle selected to be controlled (i.e., identify the emission episode, or portion thereof, which requires the highest parameter value in order to assure compliance; the average parameter value that is necessary to assure compliance for that emission episode, or portion thereof, shall be the level for all emission episodes, or portions thereof, in the batch cycle that are selected to be controlled).

(E) Alternatively, an average monitored parameter value shall be calculated for the entire batch cycle based on all values recorded during each batch emission episode, or portion thereof, selected to be controlled.

(ii) Instead of establishing a single level for the batch cycle, as described in paragraph (d)(3)(i) of this section, an owner or operator may establish separate levels for each batch emission episode, or portion thereof, selected to be controlled. Each level shall be determined as specified in paragraphs (d)(3)(i)(A) and (d)(3)(i)(B) of this section.

(iii) The batch cycle shall be defined in the Notification of Compliance Status, as specified in § 63.1419(e)(5). Said definition shall include an identification of each batch emission episode. The definition of batch cycle shall also include the information required to determine parameter monitoring compliance for partial batch cycles (i.e., when part of a batch cycle is accomplished during two different operating days) for those parameters averaged on a batch cycle daily average basis.

(e) *Establishment of parameter monitoring levels based on performance tests, engineering assessments, and/or manufacturer's recommendations.* Parameter monitoring levels may be established based on the parameter values measured during the performance test supplemented by engineering assessments and/or manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of expected parameter values.

(f) [Reserved]

(g) *Alternative monitoring parameters.* An owner or operator may request approval to monitor parameters other than those required by paragraph (b) of this section. The request shall be submitted according to the procedures specified in § 63.1419(f). Approval shall be requested if the owner or operator:

(1) Uses a control device other than those included in paragraph (b) of this section; or

(2) Uses one of the control devices included in paragraph (b) of this section, but seeks to monitor a parameter other than those specified in Table 4 of this subpart and paragraph (b) of this section.

(h) *Monitoring of bypass lines.* Owners or operators using a vent system that contains bypass lines that could divert emissions away from a control device used to comply with the provisions of this subpart shall comply with either paragraph (h)(1) or (h)(2) of this section. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph (h):

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in § 63.1408(e)(3). The flow indicator shall be installed at the entrance to any bypass line that could divert emissions away from the control device and to the atmosphere; or

(2) Secure the bypass line damper or valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the damper or valve is maintained in the non-diverting position and emissions are not diverted through the bypass line. Records shall be generated as specified in § 63.1408(e)(4).

(i) *Monitoring for the alternative standards.* For control devices that are used to comply with the provisions of § 63.1404(c), § 63.1405(f), § 63.1406(d), or § 63.1407(d), the owner or operator shall monitor and record the outlet organic HAP concentration every 15 minutes during the period in which the device is functioning in achieving the HAP removal required by this subpart. Continuous monitoring of outlet organic HAP concentration shall be accomplished using an FTIR (Fourier Transform Infrared Spectroscopy) instrument following Method PS–15 of 40 CFR part 60, appendix B.

(j) *Exceedances of operating parameters.* An exceedance of an operating parameter is defined as one of the following:

(1) If the parameter, averaged over the operating day or block, is below a minimum value established during the initial compliance demonstration.

(2) If the parameter, averaged over the operating day or block, is above the maximum value established during the initial compliance demonstration.

(3) If all flames at the pilot light of a flare are absent or the monitor is not working.

(k) *Excursions.* Excursions are defined by either of the two cases listed in paragraph (k)(1) or (k)(2) of this section.

(1) When the period of control device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data, as defined in paragraph (k)(3) of this section, for at least 75 percent of the operating hours.

(2) When the period of control device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.

(3) Monitoring data are insufficient to constitute a valid hour of data, as used in paragraphs (k)(1) and (k)(2) of this section, if measured values are unavailable for any of the 15-minute periods within the hour. For data compression systems approved under § 63.1419(g)(3), monitoring data are insufficient to calculate a valid hour of data if there are less than four data measurements made during the hour.

(l) *Violations.* Exceedances of parameters monitored according to the provisions of paragraphs (b)(1), (b)(2), and (b)(4) through (b)(7) of this section or excursions as defined in paragraph (j) of this section constitute violations of the operating limit, except as specified in paragraph (l)(1) of this section. Exceedances of the condenser outlet gas temperature limit monitored according to the provisions of paragraph (b)(3) of this section or exceedances of the outlet concentrations monitored according to the provisions of paragraph (b)(8) of this section constitute violations of the emission limit, except as specified in paragraph (l)(1) of this section. Exceedances of the emission limit monitored according to the procedures specified in § 63.1417(e)(2) and paragraph (i) of this section constitute violations of the emission limit, except as specified in paragraph (l)(1) of this section. Exceedances of the outlet concentrations monitored according to the provisions of paragraph (i) of this section constitute violations of the emission limit, as specified in paragraphs (l)(1) and (l)(2) of this section.

(1) If the daily average value of a monitored parameter is above the maximum level or below the minimum level established, or if monitoring data cannot be collected during monitoring device calibration check or monitoring device malfunction, or if monitoring data are not collected during periods of start-up, shutdown, or malfunction, or if monitoring data are not collected during periods of nonoperation of the affected source or portion thereof (resulting in cessation of the emissions to which the monitoring applies), but the affected source is operated during the periods of start-up, shutdown, or malfunction in accordance with the affected source's Start-up, Shutdown, and Malfunction Plan, then the event shall not be considered a violation.

(2) Except as provided in paragraph (l)(1) of this section, exceedances of the 20 ppmv organic HAP outlet emission limit, averaged over the operating day, will result in no more than one violation per day per control device.

(m) *Monitoring for emission limits.* The owner or operator of any affected source complying with the kilogram of HAP per megagram of product emission limit specified in § 63.1406 shall demonstrate continuous compliance using the procedures specified in § 63.1417(e)(2). When the rolling average monthly emission rate or the 12-month rolling average monthly emission rate, as appropriate, exceeds the specified emission limit, a violation of the emission limit has occurred.

§ 63.1419 General recordkeeping and reporting requirements.

(a) *Data retention.* Unless otherwise specified in this subpart, each owner or operator of an affected source shall keep copies of all applicable records and reports required by this subpart for at least 5 years, as specified in paragraph (a)(1) of this section, with the exception listed in paragraph (a)(2) of this section.

(1) All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent 6 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. The remaining 4 and one-half years of records may be retained offsite. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, CD–ROM, optical disc, magnetic tape, or microfiche.

(2) If an owner or operator submits copies of reports to the appropriate EPA Regional Office, the owner or operator is not required to maintain copies of reports. If the EPA Regional Office has waived the requirement of § 63.10(a)(4)(ii) for submittal of copies of reports, the owner or operator is not required to maintain copies of those reports.

(b) *Requirements of subpart A of this part.* The owner or operator of an affected source shall comply with the applicable recordkeeping and reporting requirements in subpart A of this part as specified in Table 1 of this subpart. These requirements include, but are not limited to, the requirements specified in paragraphs (b)(1) and (b)(2) of this section.

(1) *Start-up, shutdown, and malfunction plan.* The owner or operator of an affected source shall develop and implement a written start-up, shutdown, and malfunction plan as specified in § 63.6(e)(3). This plan shall describe, in detail, procedures for operating and maintaining the affected source during periods of start-up, shutdown, and malfunction and a program for corrective action for malfunctioning process and air

pollution control equipment used to comply with this subpart. A provision for ceasing to collect, during a start-up, shutdown, or malfunction, monitoring data that would otherwise be required by the provisions of this subpart may be included in the start-up, shutdown, and malfunction plan only if the owner or operator can demonstrate that the monitoring system could be damaged or destroyed if it were not shut down during the start-up, shutdown, or malfunction. The affected source shall keep the start-up, shutdown, and malfunction plan on-site. Records associated with the plan shall be kept as specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(C) of this section. Reports related to the plan shall be submitted as specified in paragraph (b)(1)(ii) of this section.

(i) *Records of start-up, shutdown, and malfunction.* The owner or operator shall keep the records specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(C) of this section.

(A) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or control devices or recovery devices or continuous monitoring systems used to comply with this subpart during which excess emissions (as defined in § 63.1400(j)(4)) occur.

(B) For each start-up, shutdown, or malfunction during which excess emissions (as defined in § 63.1400(j)(4)) occur, records that the procedures specified in the affected source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing a control device to a backup control device (e.g., a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records shall be kept of whether the plan was followed. These records may take the form of a ''checklist,'' or other form of recordkeeping that confirms conformance with the start-up shutdown, and malfunction plan for the event.

(C) Records specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(B) of this section are not required if they pertain solely to Group 2 emission points.

(ii) *Reports of start-up, shutdown, and malfunction.* For the purposes of this subpart, the semiannual start-up, shutdown, and malfunction reports shall be submitted on the same schedule as the Periodic Reports required under paragraph (e)(6) of this section instead of being submitted on the schedule specified in § 63.10(d)(5)(i). Said reports shall include the information specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(B) of this section and shall contain the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy.

(2) *Application for approval of construction or reconstruction.* For new affected sources, each owner or operator shall comply with the provisions in § 63.5 regarding construction and reconstruction, excluding the provisions specified in § 63.5(d)(1)(ii)(H), (d)(1)(iii), (d)(2), and (d)(3)(ii).

(c) [Reserved]

(d) *Recordkeeping and documentation.* Owners or operators required to comply with § 63.1418 and, therefore, required to keep continuous records shall keep records as specified in paragraphs (d)(1) through (d)(7) of this section, unless an alternative recordkeeping system has been requested and approved as specified in paragraph (g) or (h) of this section. If a monitoring plan for storage vessels pursuant to § 63.1404(d)(9) requires continuous records, the monitoring plan shall specify which provisions, if any, of paragraphs (d)(1) through (d)(7) of this section apply. As described in § 63.1404(d)(9), certain storage vessels are not required to comply with § 63.1418 and, therefore, are not required to keep continuous records as specified in this paragraph (d). Owners and operators of such storage vessels shall keep records as specified in the monitoring plan required by § 63.1404(d)(9). Paragraphs (d)(8) and (d)(9) of this section specify documentation requirements.

(1) The monitoring system shall measure data values at least once every 15 minutes.

(2) The owner or operator shall record either each measured data value or average values for 1 hour or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) average instead of all measured values. Owners or operators of batch process vents shall record each measured data value; if values are measured more frequently than once per minute, a single value for each minute may be recorded instead of all measured values.

(3) Daily average, batch cycle daily average, or block average values of each continuously monitored parameter shall be calculated for each operating day as specified in paragraphs (d)(3)(i) through (d)(3)(ii) of this section, except as specified in paragraphs (d)(6) and (d)(7) of this section. The option of conducting parameter monitoring for batch process vents on a batch cycle daily average basis or a block average basis is described in § 63.1408(c).

(i) The daily average value, batch cycle daily average, or block average shall be calculated as the average of all parameter values recorded during the operating day, or batch cycle, as appropriate, except as specified in paragraph (d)(7) of this section. For batch process vents, only parameter values recorded during those batch emission episodes, or portions thereof, in the batch cycle that the owner or operator has chosen to control shall be used to calculate the average. The calculated average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous for daily average values or batch cycle daily average values. The calculated average shall cover the entire period of the batch cycle for block average values. As specified in § 63.1418(d)(3)(iii), the owner or operator shall provide the information needed to calculate batch cycle daily averages for operating days that include partial batch cycles.

(ii) The operating day shall be the period the owner or operator specifies in the operating permit or the Notification of Compliance Status for purposes of determining daily average values or batch cycle daily average values of monitored parameters. The block shall be the entire period of the batch cycle, as specified by the owner or operator in the operating permit or the Notification of Compliance Status for purposes of determining block average values of monitored parameters.

(4) [Reserved]

(5) [Reserved]

(6) *Records required when all recorded values are within the established limits.* If all recorded values for a monitored parameter during an operating day or block are above the minimum level or below the maximum level established in the Notification of Compliance Status or operating permit, the owner or operator may record that all values were above the minimum level or below the maximum level rather than calculating and recording a daily average, or block average, for that operating day. For these operating days or blocks, the records required in paragraph (d)(2) of this section shall also be retained for 5 years.

(7) Monitoring data recorded during periods identified in paragraphs (d)(7)(i) through (d)(7)(v) of this section shall not

be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device or recovery device operation when monitors are not operating:

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(ii) Start-ups;

(iii) Shutdowns;

(iv) Malfunctions; and

(v) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(8) For continuous monitoring systems used to comply with this subpart, records documenting the completion of calibration checks, and records documenting the maintenance of continuous monitoring systems that are specified in the manufacturer's instructions or that are specified in other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(9) The owner or operator of an affected source granted a waiver under § 63.10(f) shall maintain any information demonstrating whether an affected source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

(e) *Reporting and notification.* In addition to the reports and notifications required by subpart A of this part as specified in Table 1 of this subpart, the owner or operator of an affected source shall prepare and submit the reports listed in paragraphs (e)(3) through (e)(8) of this section, as applicable. All reports required by this subpart, and the schedule for their submittal, are listed in Table 6 of this subpart.

(1) Owners and operators shall not be in violation of the reporting requirements of this paragraph (e) for failing to submit information required to be included in a specified report if the owner or operator meets the requirements in paragraphs (e)(1)(i) through (e)(1)(iii) of this section. Examples of circumstances where this paragraph (e)(1) may apply include information related to newly-added equipment or emission points, changes in the process, changes in equipment required or utilized for compliance with the requirements of this subpart, or changes in methods or equipment for monitoring, recordkeeping, or reporting:

(i) The information was not known in time for inclusion in the report specified by this subpart;

(ii) The owner or operator has been diligent in obtaining the information; and

(iii) The owner or operator submits a report according to the provisions of paragraphs (e)(1)(iii)(A) through (e)(1)(iii)(C) of this section.

(A) If this subpart expressly provides for supplements to the report in which the information is required, the owner or operator shall submit the information as a supplement to that report. The information shall be submitted no later than 60 days after it is obtained, unless otherwise specified in this subpart.

(B) If this subpart does not expressly provide for supplements, but the owner or operator must submit a request for revision of an operating permit pursuant to part 70 or part 71, due to circumstances to which the information pertains, the owner or operator shall submit the information with the request for revision to the operating permit.

(C) In any case not addressed by paragraph (e)(1)(iii)(A) or (e)(1)(iii)(B) of this section, the owner or operator shall submit the information with the first Periodic Report, as required by this subpart, which has a submission deadline at least 60 days after the information is obtained.

(2) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in § 63.13. If acceptable to both the Administrator and the owner or operator of an affected source, reports may be submitted on electronic media.

(3) *Precompliance Report.* Owners or operators of affected sources requesting an extension for compliance; or requesting approval to use alternative monitoring parameters, alternative continuous monitoring and recordkeeping, or alternative controls; requesting approval to use engineering assessment to estimate emissions from a batch emissions episode, as described in § 63.1417(e)(3)(vi)(A)(*3*); or establishing parameter monitoring levels according to the procedures contained in § 63.1418(c)(1) or (e); or following the procedures in § 63.1417(e)(2) shall submit a Precompliance Report according to the schedule described in paragraph (e)(3)(i) of this section. The Precompliance Report shall contain the information specified in paragraphs (e)(3)(ii) through (e)(3)(viii) of this section, as appropriate. If required, supplements to the Precompliance Report shall be submitted as specified in paragraph (e)(3)(xi) of this section.

(i) *Submittal dates.* The Precompliance Report shall be submitted to the Administrator no later than 12 months prior to the compliance date. Unless the Administrator objects to a request submitted in the Precompliance Report within 45 days after its receipt, the request shall be deemed approved. For new affected sources, the Precompliance Report shall be submitted to the Administrator with the application for approval of construction or reconstruction required in paragraph (b)(2) of this section. Supplements to the Precompliance Report may be submitted as specified in paragraph (e)(3)(xi) of this section.

(ii) A request for an extension for compliance, as specified in § 63.1401(e), may be submitted in the Precompliance Report. The request for a compliance extension will include the data outlined in § 63.6(i)(6)(i)(A), (B), and (D), as required in § 63.1401(e)(1).

(iii) The alternative monitoring parameter information required in paragraph (f) of this section shall be submitted in the Precompliance Report if, for any emission point, the owner or operator of an affected source seeks to comply through the use of a control technique other than those for which monitoring parameters are specified in this subpart or in subpart G of this part or seeks to comply by monitoring a different parameter than those specified in this subpart or in subpart G of this part.

(iv) If the affected source seeks to comply using alternative continuous monitoring and recordkeeping as specified in paragraph (g) of this section, the information requested in paragraph (e)(3)(iv)(A) or (e)(3)(iv)(B) of this section shall be submitted in the Precompliance Report:

(A) The owner or operator shall submit notification of the intent to use the provisions specified in paragraph (g) of this section; or

(B) The owner or operator shall submit a request for approval to use alternative continuous monitoring and recordkeeping provisions as specified in paragraph (g) of this section.

(v) The owner or operator shall report the intent to use alternative controls to comply with the provisions of this subpart in the Precompliance Report. Alternative controls must be deemed by the Administrator to be equivalent to the controls required by the standard, under the procedures outlined in § 63.6(g).

(vi) If an owner or operator demonstrates that the emissions estimation equations contained in § 63.1417(e)(3) are inappropriate as specified in § 63.1417(e)(3)(vi)(A)(*3*), the information required by § 63.1417(e)(3)(vi)(C)(*2*) shall be submitted in the Precompliance Report.

(vii) If an owner or operator establishes parameter monitoring levels

according to the procedures contained in § 63.1418(c)(1) or (e), the following information shall be submitted in the Precompliance Report:

(A) Identification of which procedures (i.e., § 63.1418(c)(1) or (e)) are to be used; and

(B) A description of how the parameter monitoring level is to be established. If the procedures in § 63.1418(e) are to be used, a description of how performance test data will be used shall be included.

(viii) If an owner or operator is complying with the emission limit specified in § 63.1406 following the procedures specified in § 63.1417(e)(2), the information specified in § 63.1417(e)(2)(iii) shall be submitted in the Precompliance Report.

(ix) [Reserved]

(x) [Reserved]

(xi) Supplements to the Precompliance Report may be submitted as specified in paragraph (e)(3)(xi)(A) or (e)(3)(xi)(B) of this section. Unless the Administrator objects to a request submitted in a supplement to the Precompliance Report within 45 days after its receipt, the request shall be deemed approved.

(A) Supplements to the Precompliance Report may be submitted to clarify or modify information previously submitted.

(B) Supplements to the Precompliance Report may be submitted to request approval to use alternative monitoring parameters, as specified in paragraph (e)(3)(iii) of this section; alternative continuous monitoring and recordkeeping, as specified in paragraph (e)(3)(iv) of this section; alternative controls, as specified in paragraph (e)(3)(v) of this section; engineering assessment to estimate emissions from a batch emissions episode, as specified in paragraph (e)(3)(vi) of this section; or to establish parameter monitoring levels according to the procedures contained in § 63.1418(c)(1) or (e), as specified in paragraph (e)(3)(vii) of this section.

(4) [Reserved]

(5) *Notification of Compliance Status.* For existing and new affected sources, a Notification of Compliance Status shall be submitted within 150 days after the compliance dates specified in § 63.1401. For equipment leaks subject to § 63.1415, the owner or operator shall submit the information required in § 63.182(c) in the Notification of Compliance Status. For all other emission points, the Notification of Compliance Status shall contain the information listed in paragraphs (e)(5)(i) through (e)(5)(vi) of this section.

(i) The results of any emission point group determinations, performance tests, design evaluations, inspections, continuous monitoring system performance evaluations, any other information used to demonstrate compliance, and any other information, as appropriate, required to be included in the Notification of Compliance Status under § 63.1401(l); under § 63.122, as referred to in § 63.1404, and § 63.1404 for storage vessels; under § 63.117, as referred to in § 63.1405, for continuous process vents; under § 63.146, as referred to in § 63.1414, for process wastewater; and § 63.1409 for batch process vents. In addition, each owner or operator shall comply with paragraphs (e)(5)(i)(A) and (e)(5)(i)(B) of this section.

(A) For performance tests, group determinations, and estimates of emissions that are based on measurements, the Notification of Compliance Status shall include one complete test report, as described in paragraph (e)(5)(i)(B) of this section, for each test method used for a particular kind of emission point. For additional tests performed for the same kind of emission point using the same method, the results and any other required information shall be submitted, but a complete test report is not required.

(B) A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(ii) For each monitored parameter for which a maximum or minimum level is required to be established, the Notification of Compliance Status shall contain the information specified in paragraphs (e)(5)(ii)(A) through (e)(5)(ii)(D) of this section, unless this information has been established and provided in the operating permit. Further, as described in § 63.1404(d)(9), for those storage vessels for which the monitoring plan required by § 63.1404(d)(9) specifies compliance with the provisions of § 63.1418, the owner or operator shall provide the information specified in paragraphs (e)(5)(ii)(A) through (e)(5)(ii)(D) of this section for each monitored parameter, unless this information has been established and provided in the operating permit. For those storage vessels for which the monitoring plan required by § 63.1404(d)(9) does not require compliance with the provisions of § 63.1418, the owner or operator shall provide the information specified in § 63.120(d)(3) as part of the Notification of Compliance Status, unless this information has been established and provided in the operating permit.

(A) The required information shall include the specific maximum or minimum level of the monitored parameter(s) for each emission point.

(B) The required information shall include the rationale for the specific maximum or minimum level for each parameter for each emission point, including any data and calculations used to develop the level and a description of why the level indicates proper operation of the control device.

(C) The required information shall include a definition of the affected source's operating day, as specified in paragraph (d)(3)(ii) of this section, for purposes of determining daily average values or batch cycle daily average values of monitored parameters. The required information shall include a definition of the affected source's block(s), as specified in paragraph (d)(3)(ii) of this section, for purposes of determining block average values of monitored parameters.

(D) For batch process vents, the required information shall include a definition of each batch cycle that requires the control of one or more batch emission episodes during the cycle, as specified in § 63.1417(e)(5)(iii) and § 63.1418(d)(3)(iii).

(iii) The determination of applicability for flexible operation units as specified in § 63.1400(f)(6).

(iv) The parameter monitoring levels for flexible operation units, and the basis on which these levels were selected, or a demonstration that these levels are appropriate at all times, as specified in § 63.1400(f)(7).

(v) The results for each predominant use determination for storage vessels belonging to an affected source subject to this subpart that is made under § 63.1400(g)(6).

(vi) Notification that the owner or operator has elected to comply with paragraph (h) of this section.

(vii) Notification that an affected source is exempt from the equipment leak provisions of § 63.1415 according to the provisions of § 63.1403(c). Notification shall include the information specified in § 63.1403(c)(2)(i).

(viii) If any emission point is subject to this subpart and to other standards as specified in § 63.1401 and if the provisions of § 63.1401 of this subpart allow the owner or operator to choose which testing, monitoring, reporting,

and recordkeeping provisions will be followed, then the Notification of Compliance Status shall indicate which rule's requirements will be followed for testing, monitoring, reporting, and recordkeeping.

(ix) An owner or operator who transfers a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream for treatment pursuant to § 63.132(g) shall include in the Notification of Compliance Status the name and location of the transferee and a description of the Group 1 wastewater stream or residual sent to the treatment facility.

(6) *Periodic Reports.* For existing and new affected sources, each owner or operator shall submit Periodic Reports as specified in paragraph (e)(6)(i) of this section. In addition, for equipment leaks subject to § 63.1415, the owner or operator shall submit the information specified in § 63.182(d), and for heat exchange systems subject to § 63.1413, the owner or operator shall submit the information specified in § 63.104(f)(2). Section 63.1418 shall govern the use of monitoring data to determine compliance for emissions points required to apply controls by the provisions of this subpart, with the following exception: As discussed in § 63.1404(d)(9), for storage vessels to which the provisions of § 63.1418 do not apply as specified in the monitoring plan required by § 63.1404(d)(9), the owner or operator is required to comply with the requirements set out in the monitoring plan and monitoring records may be used to determine compliance.

(i) Except as specified in paragraph (e)(6)(xii) of this section, a report containing the information in paragraph (e)(6)(ii) of this section or containing the information in paragraphs (e)(6)(iii) through (e)(6)(xi) of this section, as appropriate, shall be submitted semiannually no later than 60 days after the end of each 180 day period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due. Subsequent reports shall cover each preceding 6-month period.

(ii) If none of the compliance exceptions specified in paragraphs (e)(6)(iii) through (e)(6)(xi) of this section occurred during the 6-month period, the Periodic Report required by paragraph (e)(6)(i) of this section shall be a statement that the affected source was in compliance for the preceding 6-month period and no activities specified in paragraphs (e)(6)(iii) through (e)(6)(xi) of this section occurred during the preceding 6-month period.

(iii) For an owner or operator of an affected source complying with the provisions of §§ 63.1404 through 63.1414 for any emission point, Periodic Reports shall include:

(A) All information specified in § 63.122 for storage vessels; §§ 63.117 and 63.118 for continuous process vents; § 63.1409 for batch process vents; § 63.104 for heat exchange systems; and § 63.146 for process wastewater;

(B) The daily average values, batch cycle daily average values, or block average values of monitored parameters for exceedances of operating parameters, as specified in § 63.1418(j), and for excursions, as specified in § 63.1418(k). For excursions, as specified in § 63.1418(k), the duration of periods when monitoring data were not collected shall be specified;

(C) The periods when monitoring data were not collected shall be specified;

(D) The information in paragraphs (e)(6)(iii)(D)(*1*) through (e)(6)(iii)(D)(*4*) of this section, as applicable:

(*1*) [Reserved]

(*2*) Notification if a process change is made such that the group status of any emission point changes from Group 2 to Group 1. The owner or operator is not required to submit a notification of a process change if that process change caused the group status of an emission point to change from Group 1 to Group 2. However, until the owner or operator notifies the Administrator that the group status of an emission point has changed from Group 1 to Group 2, the owner or operator is required to continue to comply with the Group 1 requirements for that emission point.

(*3*) Notification if one or more emission point(s) or one or more APPU is added to an affected source. The owner or operator shall submit the information contained in paragraphs (e)(6)(iii)(D)(*3*)(*i*) through (e)(6)(iii)(D)(*3*)(*ii*) of this section:

(*i*) A description of the addition to the affected source;

(*ii*) Notification of the group status of the additional emission point, if appropriate, or notification of all emission points in the added APPU.

(*4*) For process wastewater streams sent for treatment pursuant to § 63.132(g), reports of changes in the identity of the treatment facility or transferee.

(E) The information in paragraph (b)(1)(ii) of this section for reports of start-up, shutdown, and malfunction.

(iv) [Reserved]

(v) If any performance tests are reported in a Periodic Report, the following information shall be included:

(A) One complete test report shall be submitted for each test method used for a particular kind of emission point tested. A complete test report shall contain the information specified in paragraph (e)(5)(i)(B) of this section.

(B) For additional tests performed for the same kind of emission point using the same method, results and any other information required shall be submitted, but a complete test report is not required.

(vi) The Periodic Report shall include the results for each change made to a primary product determination for an amino/phenolic resin made under § 63.1400(f)(6).

(vii) The Periodic Report shall include the results for each change made to a predominant use determination for a storage vessel belonging to an affected source subject to this subpart that is made under § 63.1400(g)(6).

(viii) [Reserved]

(ix) The Periodic Report required by § 63.1415(p) may be submitted as part of the Periodic Report required by paragraph (e)(6) of this section.

(x) Notification that the owner or operator has elected to comply with paragraph (h) of this section.

(xi) Notification that the owner or operator has elected to not retain the daily average, batch cycle daily average, or block average values, as appropriate, as specified in paragraph (h)(2)(i) of this section.

(xii) The owner or operator of an affected source shall submit quarterly reports for particular emission points as specified in paragraphs (e)(6)(xii)(A) through (e)(6)(xii)(D) of this section.

(A) The owner or operator of an affected source shall submit quarterly reports for a period of 1 year for an emission point if the Administrator requests the owner or operator to submit quarterly reports for the emission point.

(B) The quarterly reports shall include all information specified in paragraphs (e)(6)(iii) through (e)(6)(xi) of this section applicable to the emission point for which quarterly reporting is required under paragraph (e)(6)(xii)(A) of this section. Information applicable to other emission points within the affected source shall be submitted in the semiannual reports required under paragraph (e)(6)(i) of this section.

(C) Quarterly reports shall be submitted no later than 60 days after the end of each quarter.

(D) After quarterly reports have been submitted for an emission point for 1 year, the owner or operator may return to semiannual reporting for the emission point unless the Administrator requests the owner or operator to continue to submit quarterly reports.

(7) *Other reports.* Other reports shall be submitted as specified in paragraphs (e)(7)(i) through (e)(7)(v) of this section.

(i) For storage vessels, the notifications of inspections required by § 63.1404 shall be submitted as specified in § 63.122(h)(1) and (h)(2).

(ii) The site-specific test plan required by § 63.1417(a)(3)(v) shall be submitted no later than 90 days before the planned date for the performance test. Unless the Administrator requests changes to the site-specific test plan within 45 days after its receipt, the site-specific test plan shall be deemed approved.

(iii) When the conditions of § 63.1400(f)(3)(i) or (f)(4)(i) are met, reports of changes to the primary product for an APPU or process unit as required by § 63.1400(f)(3)(ii) or (f)(4)(ii), respectively, shall be submitted.

(iv) Owners or operators of APPU or emission points (other than equipment leak components subject to § 63.1415) that are subject to § 63.1400(i)(1) or (i)(2) shall submit a report as specified in paragraphs (e)(7)(iv)(A) and (B) of this section.

(A) Reports shall include:

(*1*) A description of the process change or addition, as appropriate;

(*2*) The planned start-up date and the appropriate compliance date, according to § 63.1400(i)(1) or (2); and

(*3*) Identification of the emission points (except equipment leak components subject to § 63.1415), and group status if applicable, specified in paragraphs (e)(7)(iv)(A)(*3*)(*i*) through (e)(7)(iv)(A)(*3*)(*iii*) of this section, as applicable.

(*i*) All the emission points in the added APPU as described in § 63.1400(i)(1).

(*ii*) All the emission points in an affected source designated as a new affected source under § 63.1400(i)(2)(i).

(*iii*) All the added or created emission points as described in § 63.1400(i)(2)(ii).

(*4*) If the owner or operator wishes to request approval to use alternative monitoring parameters, alternative continuous monitoring or recordkeeping, alternative controls, engineering assessment to estimate emissions from a batch emissions episode, or wishes to establish parameter monitoring levels according to the procedures contained in § 63.1418(c)(1) or (e), a Precompliance Report shall be submitted in accordance with paragraph (e)(7)(iv)(B) of this section.

(B) Reports shall be submitted as specified in paragraphs (e)(7)(iv)(B)(*1*) through (e)(7)(iv)(B)(*3*) of this section, as appropriate.

(*1*) Owners or operators of an added APPU subject to § 63.1400(i)(1) shall submit a report no later than 180 days prior to the compliance date for the APPU.

(*2*) Owners or operators of an affected source designated as a new affected source under § 63.1400(i)(2)(i) shall submit a report no later than 180 days prior to the compliance date for the affected source.

(*3*) Owners or operators of any emission point (other than equipment leak components subject to § 63.1415) subject to § 63.1400(i)(2)(ii) shall submit a report no later than 180 days prior to the compliance date for those emission points.

(v) The information specified in § 63.1417(a)(1) shall be submitted when a small control device becomes a large control device, as specified in paragraphs (e)(7)(v)(A) through (e)(7)(v)(B) of this section.

(A) Notification that a small control device has become a large control device and the site-specific test plan shall be submitted within 60 days of the date the small control device becomes a large control device. The site-specific test plan shall include the information specified in § 63.1417(a)(3)(v). Approval of the site-specific test plan shall follow paragraph (e)(7)(ii) of this section.

(B) Results of the performance test required by § 63.1417(a)(1) shall be submitted within 150 days of the date the small control device becomes a large control device.

(8) *Operating permit application.* An owner or operator who submits an operating permit application instead of a Precompliance Report shall submit the information specified in paragraph (e)(3) of this section, Precompliance Report, as applicable.

(f) *Alternative monitoring parameters.* The owner or operator who has been directed by any section of this subpart or any section of another subpart referenced by this subpart, that expressly referenced this paragraph (f) to set unique monitoring parameters, or who requests approval to monitor a different parameter than those specified in § 63.1404 for storage vessels, § 63.1405 for continuous process vents, § 63.1418 for batch process vents, or § 63.1414 for wastewater shall submit the information specified in paragraphs (f)(1) through (f)(3) of this section in the Precompliance Report, as required by paragraph (e)(3) of this section. The owner or operator shall retain for a period of 5 years each record required by paragraphs (f)(1) through (f)(3) of this section.

(1) The required information shall include a description of the parameter(s) to be monitored to ensure the recovery device, control device, or pollution prevention measure is operated in conformance with its design and achieves the specified emission limit or percent reduction, and an explanation of the criteria used to select the parameter(s).

(2) The required information shall include a description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation, the schedule for this demonstration, and a statement that the owner or operator will establish a level for the monitored parameter as part of the Notification of Compliance Status report required in paragraph (e)(5) of this section, unless this information has already been included in the operating permit application.

(3) The required information shall include a description of the proposed monitoring, recordkeeping, and reporting system, to include the frequency and content of monitoring, recordkeeping, and reporting. Further, the rationale for the proposed monitoring, recordkeeping, and reporting system shall be included if either condition in paragraph (f)(3)(i) or (f)(3)(ii) of this section is met:

(i) If monitoring and recordkeeping is not continuous; or

(ii) If reports of daily average values will not be included in Periodic Reports when the monitored parameter value is above the maximum level or below the minimum level as established in the operating permit or the Notification of Compliance Status.

(g) *Alternative continuous monitoring and recordkeeping.* An owner or operator choosing not to implement the provisions specified in § 63.1405 for continuous process vents, § 63.1418 for batch process vents, or § 63.1414 for wastewater, may instead request approval to use alternative continuous monitoring and recordkeeping provisions according to the procedures specified in paragraphs (g)(1) through (g)(4) of this section. Requests shall be submitted in the Precompliance Report as specified in paragraph (e)(3)(iv) of this section, if not already included in the operating permit application, and shall contain the information specified in paragraphs (g)(2)(ii) and (g)(3)(ii) of this section, as applicable.

(1) The provisions in § 63.8(f)(5)(i) shall govern the review and approval of requests.

(2) An owner or operator of an affected source that does not have an automated monitoring and recording system capable of measuring parameter values at least once every 15 minutes and that does not generate continuous

records may request approval to use a nonautomated system with less frequent monitoring, in accordance with paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(i) The requested system shall include manual reading and recording of the value of the relevant operating parameter no less frequently than once per hour. Daily average (or batch cycle daily average) values shall be calculated from these hourly values and recorded.

(ii) The request shall contain:

(A) A description of the planned monitoring and recordkeeping system;

(B) Documentation that the affected source does not have an automated monitoring and recording system;

(C) Justification for requesting an alternative monitoring and recordkeeping system; and

(D) Demonstration to the Administrator's satisfaction that the proposed monitoring frequency is sufficient to represent control or recovery device operating conditions, considering typical variability of the specific process and control or recovery device operating parameter being monitored.

(3) An owner or operator may request approval to use an automated data compression recording system that does not record monitored operating parameter values at a set frequency (for example, once every 15 minutes) but records all values that meet set criteria for variation from previously recorded values, in accordance with paragraphs (g)(3)(i) and (g)(3)(ii) of this section.

(i) The requested system shall be designed to:

(A) Measure the operating parameter value at least once every 15 minutes;

(B) Except for the monitoring of batch process vents, calculate hourly average values each hour during periods of operation;

(C) Record the date and time when monitors are turned off or on;

(D) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident;

(E) Calculate daily average, batch cycle daily average, or block average values of the monitored operating parameter based on all measured data; and

(F) If the daily average is not an exceedance of the operating parameter, as defined in § 63.1418(j), the data for that operating day may be converted to hourly average values and the four or more individual records for each hour in the operating day may be discarded.

(ii) The request shall contain:

(A) A description of the monitoring system and data compression recording system, including the criteria used to determine which monitored values are recorded and retained;

(B) The method for calculating daily averages and batch cycle daily averages; and

(C) A demonstration that the system meets all criteria in paragraph (g)(3)(i) of this section.

(4) An owner or operator may request approval to use other alternative monitoring systems according to the procedures specified in § 63.8(f)(4).

(h) *Reduced recordkeeping program.* For any parameter with respect to any item of equipment, the owner or operator may implement the recordkeeping requirements specified in paragraph (h)(1) or (h)(2) of this section as alternatives to the provisions specified in this subpart for storage vessels, continuous process vents, batch process vents, or wastewater. The owner or operator shall retain for a period of 5 years each record required by paragraph (h)(1) or (h)(2) of this section.

(1) The owner or operator may retain only the daily average, batch cycle daily average or block average value, and is not required to retain more frequent monitored operating parameter values, for a monitored parameter with respect to an item of equipment, if the requirements of paragraphs (h)(1)(i) through (h)(1)(vi) of this section are met. An owner or operator electing to comply with the requirements of paragraph (h)(1) of this section shall notify the Administrator in the Notification of Compliance Status as specified in paragraph (e)(5)(vi) of this section or, if the Notification of Compliance Status has already been submitted, in the Periodic Report immediately preceding implementation of the requirements of paragraph (h)(1) of this section as specified in paragraph (e)(6)(x) of this section.

(i) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation other than start-ups, shutdowns, or malfunctions (e.g., a temperature reading of −200° C on a boiler), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day or block constitute a single occurrence.

(ii) The monitoring system generates, updated at least hourly throughout each operating day, a running average of the monitoring values that have been obtained during that operating day or block, and the capability to observe this running average is readily available to the Administrator on-site during the operating day. The owner or operator shall record the occurrence of any period meeting the criteria in paragraphs (h)(1)(ii)(A) through (h)(1)(ii)(C) of this section. All instances in an operating day or block constitute a single occurrence:

(A) The running average is above the maximum or below the minimum established limits;

(B) The running average is based on at least six 1-hour average values; and

(C) The running average reflects a period of operation other than a start-up, shutdown, or malfunction.

(iii) The monitoring system is capable of detecting unchanging data during periods of operation other than start-ups, shutdowns, or malfunctions, except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day or block constitute a single occurrence.

(iv) The monitoring system will alert the owner or operator by an alarm or other means, if the running average parameter value calculated under paragraph (h)(1)(ii) of this section reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.

(v) The owner or operator shall verify the proper functioning of the monitoring system, including its ability to comply with the requirements of paragraph (h)(1) of this section, at the times specified in paragraphs (h)(1)(v)(A) through (h)(1)(v)(C). The owner or operator shall document that the required verifications occurred.

(A) Upon initial installation.

(B) Annually after initial installation.

(C) After any change to the programming or equipment constituting the monitoring system, which might reasonably be expected to alter the monitoring system's ability to comply with the requirements of this section.

(vi) The owner or operator shall retain the records identified in paragraphs (h)(1)(vi)(A) through (h)(1)(vi)(D) of this section.

(A) Identification of each parameter, for each item of equipment, for which the owner or operator has elected to comply with the requirements of paragraph (h) of this section.

(B) A description of the applicable monitoring system(s), and of how compliance will be achieved with each requirement of paragraphs (h)(1)(i) through (h)(1)(v) of this section. The description shall identify the location and format (e.g., on-line storage, log

entries) for each required record. If the description changes, the owner or operator shall retain both the current and the most recent superseded description, as provided in paragraph (a) of this section, except as provided in paragraph (h)(1)(vi)(D) of this section.

(C) A description, and the date, of any change to the monitoring system that would reasonably be expected to impair its ability to comply with the requirements of paragraph (h)(1) of this section.

(D) Owners and operators subject to paragraph (h)(1)(vi)(B) of this section shall retain the current description of the monitoring system as long as the description is current. The current description shall, at all times, be retained on-site or be accessible from a central location by computer or other means that provides access within 2 hours after a request. The owner or operator shall retain all superseded descriptions for at least 5 years after the date of their creation. Superseded descriptions shall be retained on-site (or accessible from a central location by computer or other means that provides access within 2 hours after a request) for at least 6 months after their creation. Thereafter, superseded descriptions may be stored off-site.

(2) If an owner or operator has elected to implement the requirements of paragraph (h)(1) of this section for a monitored parameter with respect to an item of equipment and a period of 6 consecutive months has passed without an excursion as defined in paragraph (h)(2)(iv) of this section, the owner or operator is no longer required to record the daily average, batch cycle daily average, or block average value for any operating day when the daily average, batch cycle daily average, or block average value is less than the maximum or greater than the minimum established limit. With approval by the Administrator, monitoring data generated prior to the compliance date of this subpart shall be credited toward the period of 6 consecutive months, if the parameter limit and the monitoring accomplished during the period prior to the compliance date was required and/or approved by the Administrator.

(i) If the owner or operator elects not to retain the daily average, batch cycle daily average, or block average values, the owner or operator shall notify the Administrator in the next Periodic Report as specified in paragraph (e)(6)(xi) of this section. The notification shall identify the parameter and unit of equipment.

(ii) If, on any operating day or during any block after the owner or operator has ceased recording daily average, batch cycle daily average, or block average values as provided in paragraph (h)(2) of this section, there is an excursion as defined in paragraph (h)(2)(iv) of this section, the owner or operator shall immediately resume retaining the daily average, batch cycle daily average, or block average value for each operating day and shall notify the Administrator in the next Periodic Report. The owner or operator shall continue to retain each daily average, batch cycle daily average, or block average value until another period of 6 consecutive months has passed without an excursion as defined in paragraph (h)(2)(iv) of this section.

(iii) The owner or operator shall retain the records specified in paragraphs (h)(1)(i) through (h)(1)(iv) of this section, for the duration specified in paragraph (h) of this section. For any calendar week, if compliance with paragraphs (h)(1)(i) through (h)(1)(iv) of this section does not result in retention of a record of at least one occurrence or measured parameter value, the owner or operator shall record and retain at least one parameter value during a period of operation other than a start-up, shutdown, or malfunction.

(iv) For purposes of paragraph (h) of this section, an excursion means that the daily average, batch cycle daily average, or block average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except that the daily average, batch cycle daily average, or block average value during any start-up, shutdown, or malfunction shall not be considered an excursion for purposes of paragraph (h)(2) of this section, if the owner or operator follows the applicable provisions of the start-up, shutdown, and malfunction plan required by § 63.6(e)(3).

TABLE 1 TO SUBPART OOO OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART OOO AFFECTED SOURCES

Reference	Applies to subpart OOO	Comment
63.1(a)(1)	Yes	§ 63.1402 specifies definitions in addition to or that supersede definitions in § 63.2.
63.1(a)(2)	Yes.	
63.1(a)(3)	Yes	63.1401(g) through (l) and § 63.160(b) identify those standards which overlap with the requirements of subparts OOO and H of this part and specify how compliance shall be achieved.
63.1(a)(4)	Yes	This subpart OOO (this table) specifies the applicability of each paragraph in subpart A of this part to this subpart OOO.
63.1(a)(5)	No	[Reserved].
63.1(a)(6)–63.1(a)(8)	Yes.	
63.1(a)(9)	No	[Reserved].
63.1(a)(10)	Yes.	
63.1(a)(11)	Yes.	
63.1(a)(12)–63.1(a)(14)	Yes.	
63.1(b)(1)	No	§ 63.1400(a) contains specific applicability criteria.
63.1(b)(2)	Yes.	
63.1(b)(3)	No	§ 63.1400(b) provides documentation requirements for APPUs not considered affected sources.
63.1(c)(1)	Yes	This subpart OOO (this table) specifies the applicability of each paragraph in subpart A of this part to this subpart OOO.
63.1(c)(2)	No	Area sources are not subject to this subpart OOO.
63.1(c)(3)	No	[Reserved].
63.1(c)(4)	Yes.	

TABLE 1 TO SUBPART OOO OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART OOO AFFECTED SOURCES—Continued

Reference	Applies to subpart OOO	Comment
63.1(c)(5)	Yes	Except that affected sources are not required to submit notifications overridden by this table.
63.1(d)	No	[Reserved].
63.1(e)	Yes.	
63.2	Yes	§ 63.1402 specifies those subpart A definitions that apply to this subpart OOO.
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 the terms ''source'' and ''stationary source'' should be interpreted as having the same meaning as ''affected source.''
63.5(a)(2)	Yes.	
63.5(b)(1)	Yes	Except § 63.1400(i) defines when construction or reconstruction is subject to new source standards.
63.5(b)(2)	No	[Reserved].
63.5(b)(3)	Yes.	
63.5(b)(4)	Yes	Except that the Initial Notification and § 63.9(b) requirements do not apply.
63.5(b)(5)	Yes.	
63.5(b)(6)	Yes	Except that § 63.1400(i) defines when construction or reconstruction is subject to new source standards.
63.5(c)	No	Reserved.
63.5(d)(1)(i)	Yes	Except that the references to the Initial Notification and § 63.9(b)(5) do not apply.
63.5(d)(1)(ii)	Yes	Except that § 63.5(d)(1)(ii)(H) does not apply.
63.5(d)(1)(iii)	No	§§ 63.1419(e)(5) and 63.1415(a)(4) specify Notification of Compliance Status requirements.
63.5(d)(2)	No	
63.5(d)(3)	Yes	Except § 63.5(d)(3)(ii) does not apply, and equipment leaks subject to § 63.1415 are exempt.
63.5(d)(4)	Yes.	
63.5(e)	Yes.	
63.5(f)(1)	Yes.	
63.5(f)(2)	Yes	Except that where § 63.9(b)(2) is referred to, the owner or operator need not comply.
63.6(a)	Yes.	
63.6(b)(1)	Yes.	
63.6(b)(2)	Yes.	
63.6(b)(3)	Yes.	
63.6(b)(4)	Yes.	
63.6(b)(5)	Yes.	
63.6(b)(6)	No	Reserved.
63.6(b)(7)	No.	
63.6(c)(1)	Yes	Except that § 63.1401 specifies the compliance date.
63.6(c)(2)	No.	
63.6(c)(3)	No	Reserved.
63.6(c)(4)	No	Reserved.
63.6(c)(5)	Yes.	
63.6(d)	No	Reserved.
63.6(e)	Yes	Except as otherwise specified in this table, § 63.6(e) does not apply to Group 2 emission points.[a]
63.6(e)(1)(i)	No	This is addressed by § 63.1400(j)(4).
63.6(e)(1)(ii)	Yes.	
63.6(e)(1)(iii)	Yes.	
63.6(e)(2)	Yes.	
63.6(e)(3)(i)	Yes	For equipment leaks (subject to § 63.1415), the start-up, shutdown, and malfunction plan requirement of § 63.6(e)(3)(i) is limited to control devices and is optional for other equipment. The start-up, shutdown, malfunction plan may include written procedures that identify conditions that justify a delay of repair.
63.6(e)(3)(i)(A)	No	This is addressed by § 63.1400(j)(4).
63.6(e)(3)(i)(B)	Yes.	
63.6(e)(3)(i)(C)	Yes.	
63.6(e)(3)(ii)	Yes.	

TABLE 1 TO SUBPART OOO OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART OOO AFFECTED SOURCES—Continued

Reference	Applies to subpart OOO	Comment
63.6(e)(3)(iii)	No	Recordkeeping and reporting are specified in § 63.1419(b)(1).
63.6(e)(3)(iv)	No	Recordkeeping and reporting are specified in § 63.1419(b)(1).
63.6(e)(3)(v)	Yes.	
63.6(e)(3)(vi)	Yes.	
63.6(e)(3)(vii)	Yes.	
63.6(e)(3)(vii) (A)	Yes.	
63.6(e)(3)(vii) (B)	Yes	Except the plan shall provide for operation in compliance with § 63.1400(j)(4).
63.6(e)(3)(vii) (C)	Yes.	
63.6(e)(3)(viii)	Yes.	
63.6(f)(1)	Yes.	
63.6(f)(2)	Yes	Except § 63.7(c), as referred to in § 63.6(f)(2)(iii)(D), does not apply, and except that § 63.6(f)(2)(ii) does not apply to equipment leaks subject to § 63.1415.
63.6(f)(3)	Yes.	
63.6(g)	Yes.	
63.6(h)	No	This subpart OOO does not require opacity and visible emission standards.
63.6(i)(1)	Yes.	
63.6(i)(2)	Yes.	
63.6(i)(3)	Yes.	
63.6(i)(4)(i)(A)	Yes.	
63.6(i)(4)(i)(B)	No	Dates are specified in §§ 63.1401(e) and 63.1419(e)(3)(i) for all emission points except equipment leaks, which are covered under § 63.182(a)(6)(i).
63.6(i)(4)(ii)	No.	
63.6(i)(5)—(14)	Yes.	
63.6(i)(15)	No	Reserved.
63.6(i)(16)	Yes.	
63.6(j)	Yes.	
63.7(a)(1)	Yes.	
63.7(a)(2)	No	§ 63.1419(e)(5) specifies the submittal dates of performance test results for all emission points except equipment leaks; for equipment leaks, compliance demonstration results are reported in the Periodic Reports.
63.7(a)(3)	Yes.	
63.7(b)	No	§ 63.1417 specifies notification requirements.
63.7(c)	No.	
63.7(d)	Yes.	
63.7(e)(1)	Yes	Except that all performance tests shall be conducted at maximum representative operating conditions.
63.7(e)(2)	Yes.	
63.7(e)(3)	No	This subpart OOO specifies requirements.
63.7(e)(4)	Yes.	
63.7(f)	Yes	Except that § 63.144(b)(5)(iiii)(A) and (B) shall apply for process wastewater. Also, if a site specific test plan is not required, the notification deadline in § 63.7(f)(2)(i) shall be 60 days prior to the performance test, and in § 63.7(f)(3), approval or disapproval of the alternative test method shall not be tied to the site specific test plan.
63.7(g)	Yes	Except that references to the Notification of Compliance Status report in § 63.9(h) are replaced with the requirements in § 63.1419(e)(5). In addition, equipment leaks subject to § 63.1415 are not required to conduct performance tests.
63.7(h)	Yes	Except § 63.7(h)(4)(ii) may not be applicable, if the site-specific test plan in § 63.7(c)(2) is not required.
63.8(a)(1)	Yes.	
63.8(a)(2)	No.	
63.8(a)(3)	No	Reserved.
63.8(a)(4)	Yes.	
63.8(b)(1)	Yes.	
63.8(b)(2)	No	This subpart OOO specifies locations to conduct monitoring.
63.8(b)(3)	Yes.	
63.8(c)(1)	Yes.	
63.8(c)(1)(i)	Yes.	

TABLE 1 TO SUBPART OOO OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART OOO AFFECTED SOURCES—Continued

Reference	Applies to subpart OOO	Comment
63.8(c)(1)(ii)	No	For all emission points except equipment leaks, comply with § 63.1419(b)(1)(i)(B); for equipment leaks, comply with § 63.181(g)(2)(iii).
63.8(c)(1)(iii)	Yes.	
63.8(c)(2)	Yes.	
63.8(c)(3)	Yes.	
63.8(c)(4)	No	§ 63.1418 specifies monitoring frequency; not applicable to equipment leaks because § 63.1415 does not require continuous monitoring systems.
63.8(c)(5)–63.8(c)(8)	No.	
63.8(d)	No.	
63.8(e)	No.	
63.8(f)(1)-63.8(f)(3)	Yes.	
63.8(f)(4)(i)	No	Timeframe for submitting request is specified in § 63.1419(f) or (g); not applicable to equipment leaks because § 63.1415 (through reference to subpart H of this part) specifies acceptable alternative methods.
63.8(f)(4)(ii)	No	Contents of request are specified in § 63.1419(f) or (g).
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)	No	This subpart OOO does not require continuous emission monitors.
63.8(g)	No	Data reduction procedures specified in § 63.1419(d) and (h); not applicable to equipment leaks.
63.9(a)	Yes.	
63.9(b)	No	This subpart OOO does not require an initial notification.
63.9(c)	Yes.	
63.9(d)	Yes.	
63.9(e)	No	§ 63.1417 specifies notification deadline.
63.9(f)	No	This subpart OOO does not require opacity and visible emission standards.
63.9(g)	No.	
63.9(h)	No	§ 63.1419(e)(5) specifies Notification of Compliance Status requirements.
63.9(i)	Yes.	
63.9(j)	No.	
63.10(a)	Yes.	
63.10(b)(1)	No	§ 63.1419(a) specifies record retention requirements.
63.10(b)(2)	No	This subpart OOO specifies recordkeeping requirements.
63.10(b)(3)	No	§ 63.1400(b) requires documentation of sources that are not affected sources.
63.10(c)	No	§ 63.1419 specifies recordkeeping requirements.
63.10(d)(1)	Yes.	
63.10(d)(2)	No	§ 63.1419(e) specifies performance test reporting requirements; not applicable to equipment leaks.
63.10(d)(3)	No	This subpart OOO does not require opacity and visible emission standards.
63.10(d)(4)	Yes.	
63.10(d)(5)	Yes	Except that reports required by § 63.10(d)(5)(i) may be submitted at the same time as Periodic Reports specified in § 63.1419(e)(6). The start-up, shutdown, and malfunction plan, and any records or reports of start-up, shutdown, and malfunction do not apply to Group 2 emission points.
63.10(e)	No	§ 63.1419 specifies reporting requirements.
63.10(f)	Yes.	
63.11	Yes.	
63.12	Yes.	
63.13–63.15	Yes.	

[a] The plan, and any records or reports of start-up, shutdown, and malfunction do not apply to Group 2 emission points.

TABLE 2 TO SUBPART OOO OF PART 63—GROUP 1 STORAGE VESSELS AT EXISTING AND NEW AFFECTED SOURCES

Stored material	Vessel capacity (m^3)	Vapor pressure [a] (kPa)
Aqueous formaldehyde	capacity ≥ 37.85	≥ 3.24.
Materials other than aqueous formaldehyde	capacity ≥ 38.46	≥ 16.89.

TABLE 2 TO SUBPART OOO OF PART 63—GROUP 1 STORAGE VESSELS AT EXISTING AND NEW AFFECTED SOURCES—Continued

Stored material	Vessel capacity (m^3)	Vapor pressure [a] (kPa)
	capacity ≥ 340.69	≥ 3.10.

[a] Maximum true vapor pressure of total organic HAP at storage temperature.

TABLE 3 TO SUBPART OOO OF PART 63—KNOWN ORGANIC HAZARDOUS AIR POLLUTANTS (HAP) FROM THE MANUFACTURE OF AMINO/PHENOLIC RESINS ORGANIC HAPCAS NUMBER

Organic HAP	CAS number	Table 4, subpart F HAP (Y/N)	Table 9, subpart G HAP (Y/N)	Table 8, subpart G HAP (Y/N)
Acrylamide	79–06–1	No	No	No.
Aniline	62–53–3	Yes	No	No.
Biphenyl	92–52–4	Yes	Yes	No.
Cresol and cresylic acid (mixed)	1319–77–3	Yes	No	No.
Cresol and cresylic acid (m-)	108–39–4	Yes	No	No.
Cresol and cresylic acid (o-)	95–48–7	Yes	No	No.
Cresol and cresylic acid (p-)	106–44–5	Yes	No	No.
Diethanolamine	111–42–2	No	No	No.
Dimethylformamide	68–12–2	No	No	No.
Ethylbenzene	100–41–4	Yes	Yes	Yes.
Ethylene glycol	107–21–1	No	No	No.
Formaldehyde	50–00–0	Yes	No	No.
Glycol ethers	0	No	No	No.
Methanol	67–56–1	Yes	Yes	No.
Methyl ethyl ketone	78–93–3	Yes	Yes	No.
Methyl isobutyl ketone	108–10–1	Yes	Yes	No.
Naphthalene	91–20–3	Yes	Yes	No.
Phenol	108–95–2	Yes	No	No.
Styrene	100–42–5	Yes	Yes	No.
Toluene	108–88–3	No	Yes	Yes.
Xylenes (NOS)	1330–20–7	Yes	No	No.
Xylene (m-)	108–38–3	Yes	Yes	Yes.
Xylene (o-)	95–47–6	Yes	Yes	No.
Xylene (p-)	106–42–3	Yes	Yes	Yes.

CAS No. = Chemical Abstract Registry Number.

TABLE 4 TO SUBPART OOO OF PART 63—BATCH PROCESS VENT MONITORING REQUIREMENTS

Control device	Parameters to be monitored	Frequency/recordkeeping requirements
Scrubber [a]	pH of scrubber effluent, and	Continuous records as specified in §63.1408(e)(1).[b]
	Scrubber liquid and gas flow rates	Continuous records as specified in §63.1408(e)(1).[b]
Absorber [a]	Exit temperature of the absorbing liquid, and	Continuous records as specified in §63.1408(e)(1).[b]
	Exit specific gravity for the absorbing liquid	Continuous records as specified in §63.1408(e)(1).[b]
Condenser [a]	Exit (product side) temperature	Continuous records as specified in §63.1408(e)(1).[b]
Carbon Adsorber [a]	Total regeneration stream mass flow during carbon bed regeneration cycle(s), and.	Record the total regeneration stream mass flow for each carbon bed regeneration cycle.
	Temperature of the carbon bed after regeneration and within 15 minutes of completing any cooling cycle(s).	Record the temperature of the carbon bed after each regeneration and within 15 minutes of completing any cooling cycle(s).
Thermal Incinerator	Firebox temperature [c]	Continuous records as specified in §63.1408(e)(1).[b]
Catalytic Incinerator	Temperature upstream and downstream of the catalyst bed.	Continuous records as specified in §63.1408(e)(1).[b]
Boiler or Process Heater with a design heat input capacity less than 44 megawatts and where the batch process vents or aggregate batch vent streams are *not* introduced with or used as the primary fuel.	Firebox temperature [c]	Continuous records as specified in §63.1408(e)(1).[b]

TABLE 4 TO SUBPART OOO OF PART 63—BATCH PROCESS VENT MONITORING REQUIREMENTS—Continued

Control device	Parameters to be monitored	Frequency/recordkeeping requirements
Flare	Presence of a flame at the pilot light	Hourly records of whether the monitor was continuously operating during batch emission episodes, or portions thereof, selected for control and whether the pilot flame was continuously present during said periods.
All Control Devices	Presence of flow diverted to the atmosphere from the control device *or*.	Hourly records of whether the flow indicator was operating during batch emission episodes, or portions thereof, selected for control and whether flow was detected at any time during said periods as specified in § 63.1408(e)(3).
	Monthly inspections of sealed valves	Records that monthly inspections were performed as specified in § 63.1408(e)(4)(i).
Scrubber, Absorber, Condenser, and Carbon Adsorber (as an alternative to the requirements previously presented in this table).	Concentration level or reading indicated by an organic monitoring device at the outlet of the control device.	Continuous records as specified in § 63.1411(e)(1).[b]

[a] Alternatively, these devices may comply with the organic monitoring device provisions listed at the end of this table.
[b] ''Continuous records'' is defined in § 63.111.
[c] Monitor may be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.

TABLE 5 TO SUBPART OOO OF PART 63—OPERATING PARAMETER LEVELS

Device	Parameters to be monitored	Established operating parameter(s)
Scrubber	pH of scrubber effluent; and scrubber liquid and gas flow rates.	Minimum pH; and minimum liquid/gas ratio
Absorber	Exit temperature of the absorbing liquid; and exit specific gravity of the absorbing liquid.	Minimum temperature; and minimum specific gravity
Condenser	Exit temperature	Maximum temperature
Carbon absorber	Total regeneration stream mass flow during carbon bed regeneration cycle; and temperature of the carbon bed after regeneration (and within 15 minutes of completing any cooling cycle(s)).	Maximum mass flow; and maximum temperature
Thermal incinerator	Firebox temperature	Minimum temperature
Catalytic incinerator	Temperature upstream and downstream of the catalyst bed.	Minimum upstream temperature; and minimum temperature difference across the catalyst bed
Boiler or process heater	Firebox temperature	Minimum temperature
Other devices (or as an alternate to the requirements previously presented in this table) [a].	HAP concentration level or reading at outlet of device.	Maximum HAP concentration or reading

[a] Concentration is measured instead of an operating parameter.

TABLE 6 TO SUBPART OOO OF PART 63—REPORTS REQUIRED BY THIS SUBPART

Reference	Description of report	Due date
§ 63.1419(b) and Subpart A of this part	Refer to Table 1 and Subpart A of this part	Refer to Subpart A of this part
63.1419(e)(3)	Precompliance Report	Existing affected sources—12 months prior to the compliance date. New affected sources—with application for approval of construction or reconstruction.
63.1419(e)(5)	Notification of Compliance Status	Within 150 days after the compliance date.
63.1419(e)(6)	Periodic Reports	Semiannually, no later than 60 days after the end of each 6-month period. See § 63.1419(e)(6)(i) for the due date for the first report.
63.1419(e)(6)(xii)	Quarterly reports upon request of the Administrator.	No later than 60 days after the end of each quarter.
63.1419(e)(7)(i)	Storage Vessels Notification of Inspection	At least 30 days prior to the refilling of each storage vessel or the inspection of each storage vessel.
63.1419(e)(7)(iii)	Notification of Change in the Primary Product	For Notification under § 63.1400(f)(3)(ii)—notification submittal date at the descretion of the owner or operator.[a]

TABLE 6 TO SUBPART OOO OF PART 63—REPORTS REQUIRED BY THIS SUBPART—Continued

Reference	Description of report	Due date
		For Notification under § 63.1400(f)(4)(ii)—within 6 months of making the determination.

[a] Note that the APPU remains subject to this subpart until the notification under § 63.1400(f)(3)(i) is made.

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