ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60, 61, 63, and 65

[AD–FRL–6173–4]

RIN 2060–AG28

Consolidated Federal Air Rule (CAR): Synthetic Organic Chemical Manufacturing Industry

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule and notice of public hearing.

SUMMARY: This action proposes a consolidated Federal air rule for the Synthetic Organic Chemical Manufacturing Industry (SOCMI). This proposed rule consolidates major portions of the following new source performance standards (NSPS) and national emission standards for hazardous air pollutants (NESHAP) applicable to storage vessels, process vents, transfer operations, and equipment leaks within the SOCMI: 40 CFR part 60, subparts A, Ka, Kb, VV, DDD, III, NNN, and RRR; 40 CFR part 61, subparts A, V, Y, and BB; and 40 CFR part 63, subparts A, F, G, and H. The proposed rule is intended to pull together applicable Federal SOCMI rules into one integrated set of rules in order to simplify, clarify, and improve implementation of the existing rules with which source owners or operators must comply. The consolidated rule is an optional compliance alternative for SOCMI sources; sources may simply continue to comply with existing applicable rules or choose to comply with the proposed consolidated rule. The effect of this consolidation will be to improve understandability, reduce burden, clarify requirements, and improve implementation and compliance.

DATES: *Comments.* Comments must be received on or before January 11, 1999.

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 SOCMI CAR. If anyone contacts EPA requesting to speak at a public hearing by November 27, 1998, a public hearing will be held on December 14, 1998, beginning at 9:30 a.m. Persons interested in attending the hearing should notify Yvonne Chandler, (919) 541–5627, to verify that a hearing will occur. If a hearing is held, the docket will remain open for 30 days after the hearing for the submission of rebuttal or supplementary information as provided by section 307(d)(5) of the Clean Air Act (Act).

Request to Speak at a Hearing. Persons wishing to present oral testimony must contact Yvonne Chandler, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, N.C., 27711, telephone number (919) 541–5627 by November 27, 1998.

ADDRESSES: *Comments.* Comments should be submitted (in duplicate, if possible) to: Air and Radiation Docket and Information Center (MC–6102), Attention, Docket No. A–96–01, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC, 20460. The EPA requests that a separate copy also be sent to the contact person listed below in the **FOR FURTHER INFORMATION CONTACT** section.

Comments on the proposal may also be submitted electronically by sending electronic mail (e-mail) to: 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 disks in WordPerfect 5.1 file format or ASCII file format. All comments and data in electronic form must be identified by the docket number (A–96–01). No Confidential Business Information (CBI) should be submitted through electronic mail. Electronic comments on this proposed rule may be filed online at many Federal Depository Libraries.

Docket. A docket, No. A–96–01, containing information considered by EPA in development of the proposed standards for the CAR, 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 [phone: (202) 260–7548]. The docket is located at the above address in Room M–1500, Waterside Mall (ground floor). A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Rick Colyer, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, N.C., 27711, telephone number (919) 541–5262, fax number (919) 541–0942, or e-mail: colyer.rick@epamail.epa.gov.

Technology Transfer Network. The Technology Transfer Network (TTN) is a network of EPA's electronic bulletin boards. The TTN provides information and technology exchange in various areas of air pollution control. The service is free except for the cost of a phone call. Dial (919) 541–5472 for modems up to 14,400 bits per second (bps). The TTN is also accessible through the Internet at ''http://ttnwww.rtpnc.epa.gov.'' If more information on the TTN is needed, call the HELP line at (919) 541–5384.

SUPPLEMENTARY INFORMATION: The following outline is provided to aid in reading the preamble to the proposed SOCMI CAR.

I. Regulated Entities and Background Information

A. Regulated Entities

The regulated category and entities potentially affected by this action include:

Category	Examples of regulated entities
Industry ..	Synthetic organic chemical manufacturing industry units. For example, producers of benzene, toluene, or any other chemical listed in table 1 of 40 CFR part 63, subpart F, and any other chemical manufacturing process unit identified in an applicable subpart that references the use of this part. Producers of polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate). Producers of vinyl chloride and polyvinyl chloride. Volatile organic compound storage vessels. Benzene storage vessels. Benzene transfer operations. Equipment (valves, pumps, connectors, etc.) in benzene service.

This table is not intended to be exhaustive, but rather, to provide a guide for entities likely to qualify to implement this action. This table lists the types of entities that EPA is now aware could potentially qualify to implement this action. To determine whether your facility will qualify to implement this action, you should carefully examine the applicability criteria in 40 CFR part 60 subparts Ka, Kb, VV, DDD, III, NNN, and RRR; 40 CFR part 61, subparts V, Y, and BB; and 40 CFR part 63, subparts F, G, and H. 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.

B. Background Information

Over the past 25 years, EPA has issued a series of Federal air regulations, many of which affect the same plant site. As a result, many facilities are now subject to multiple Federal rules applying to different emission points. Each rule has its own emission control requirements as well as monitoring, recordkeeping, and reporting requirements. Although these rules were developed for different purposes, under different statutory authorities, and apply to different pollutants, they may impose many duplicative or near duplicative requirements on a plant site, thus complicating implementation of and compliance with these rules.

On March 16, 1995 President Clinton and Vice President Gore announced several initiatives aimed at reinventing environmental regulation. One of those initiatives was to consolidate Federal air rules, so that all Federal air rules for any single industry would be incorporated into a single rule. This rule would consist of ''* * * one set of emission limitations, monitoring, and recordkeeping and reporting requirements.''

The EPA selected the Federal air rules applying to the SOCMI for a pilot project to study the feasibility and practical implications of consolidating and streamlining existing rules, and to establish a workable process for consolidation that can then be applied to other consolidation efforts in the future. The SOCMI was selected as the pilot because of the large number of similar Federal air regulations that can apply at a single location. The SOCMI is subject to NSPS and NESHAP under the Act, as well as to Resource Conservation and Recovery Act (RCRA) air standards. The rules for a given type of emission point require application of controls with similar control efficiencies and include similar design, equipment, or operating standards. However, the standards differ in their applicability and in some of their control, monitoring, recordkeeping, and reporting requirements. Additionally, both the SOCMI and State air pollution control agencies have expressed great interest in consolidation of applicable Federal air requirements to the extent possible for easier incorporation into title V operating permits.

For these reasons, EPA believes that consolidation of the requirements of the various rules into one rule would greatly benefit both the industry and government enforcement agencies. It is believed that such consolidation would improve compliance and enforceability and reduce resource needs.

II. Considerations in Rule Development

A. Goals and Objectives

The following goals and objectives were established for developing this proposed consolidation:

(1) Reduce regulatory burden by consolidating and simplifying requirements and eliminating duplicative requirements.

(2) Facilitate implementation and compliance by making the requirements easier to understand and incorporating streamlined compliance approaches from the most recent rules.

(3) Consolidate the present system of Federal air rules that apply to SOCMI facilities into a single rule without compromising environmental protection and enforceability by maintaining the same applicability and the same or greater emission control levels as the underlying rules.

It is not EPA's intent to alter the applicability of the underlying rules. Thus, only sources already subject to an underlying rule would be affected by the CAR. Likewise, no source subject to an underlying rule would become exempt under the CAR. In addition, regardless of which eligible sources choose to comply with the CAR, implementation of the CAR will not result in greater emissions. Rather, greater emission reductions would be likely since all sources choosing to comply with the CAR would be raised to the same level of control. It is anticipated that, due to the burden reduction afforded by the CAR, sources will choose to comply with the CAR despite potential increases in stringency over some provisions in the underlying rules.

As a basis for the consolidation effort, EPA recognized that strategies and approaches to regulating specific types of emission points, such as storage tanks or equipment leaks, have evolved and improved over the 25 years of SOCMI rule development. For the most part, the referencing subparts have not been substantially revised since promulgation, other than administrative changes. In developing the CAR, EPA has focused on provisions that reflect the most current and effective approaches to emission control as well as the clearest and most concise language. Burden reduction was also a major theme in the consolidation process, and each provision was examined closely for potential burden reduction. Particular scrutiny was given to provisions dealing with monitoring, recordkeeping, and reporting. Moreover,

reducing the number of applicable rules, in and of itself, is a source of additional burden reduction. The EPA believes that creation of a consolidated air rule around these goals and objectives will lead to improved compliance and implementation for the SOCMI industry.

B. Participation

The EPA's strategy for consolidation included significant participation by affected parties outside the Agency. The EPA approached the Chemical Manufacturers Association (CMA), which represents the SOCMI, to discuss the concept of a consolidated SOCMI rule and to contribute ideas for establishing such a rule. The CMA readily supported the concept of consolidation and volunteered resources to assist in the project. Air pollution agencies in States where the majority of SOCMI facilities are located and national environmental groups were also invited. Some States and environmental groups declined direct involvement due to resource constraints and also due to the fact that the applicability of the underlying rules would not change, and the overall stringency of the underlying rules would not be diminished.

In addition, an extended group of other interested parties consisting of representatives from industries with similar emissions and emission points as the SOCMI, environmental groups, and State agencies was kept informed through correspondence and meetings. This extended group was briefed and asked to provide input periodically during development of the proposed CAR. Industries and organizations represented in this group would not necessarily be affected by the CAR but are interested in the outcome to determine whether a similar consolidation effort would be beneficial for their interests. This group includes the following interested parties:

- State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials (STAPPA/ALAPCO) and other State air pollution agencies.
- Synthetic Organic Chemical Manufacturers Association.
- Natural Resources Defense Council.
- American Petroleum Institute.
- Independent Liquid Terminals Association.
- National Petroleum Refiners Association.
- Society of Plastics Institute.

No groups have been purposely excluded from the process, and comment on this proposal is welcome from any interested party.

The EPA convened meetings with affected parties on an as-needed basis—roughly once every one to two months. At the earlier meetings, goals, objectives, and basic principles of consolidation were formulated. Subsequent meetings addressed technical issues, comparisons of similar provisions, enforcement issues, and identification of burden reduction opportunities. Ultimately, the work group provided well balanced and informed input for EPA to develop a technically feasible and enforceable consolidated rule.

III. Summary of the CAR

This section of the preamble provides a general overview of the CAR. More detailed discussions and rationale for the CAR's provisions are included in sections IV, V, and VI of this preamble.

A. Scope

One of the first decisions required for the consolidation effort addressed which regulations would be consolidated. Many options were considered, but EPA eventually decided to limit the scope of the pilot SOCMI CAR to the Federal regulations listed in table 1. These are the Federal Clean Air Act rules that affect the SOCMI and that are consolidated in the CAR. The EPA determined that this scope was broad enough to provide significant benefits, but well defined enough to ensure a reasonable chance of success as a pilot project.

TABLE 1.—SCOPE: RULES CONSOLIDATED IN THE SOCMI CAR

40 CFR part 60, subparts:
A: General Provisions
Ka: Petroleum Liquids Storage [a]
Kb: Volatile Organic Liquid Storage [a]
VV: SOCMI Equipment Leaks [a]
DDD: Certain Polymers and Resins Process vents [a]
III: SOCMI Air Oxidation Process Vents [a]
NNN: SOCMI Distillation Process Vents [a]
RRR: SOCMI Reactor Process Vents [a]
40 CFR part 61, subparts:
A: General Provisions
V: Equipment Leaks (for benzene and vinyl chloride) [a]
Y: Benzene Storage [a]
BB: Benzene Transfer [a]
40 CFR part 63, subparts:
A: General Provisions
F: SOCMI Applicability
G: SOCMI Storage, Transfer, and Process Vents [a]
H: SOCMI Equipment Leaks [a]

[a] These subparts contain proposed language that refers readers to the SOCMI CAR as an optional means of compliance. Thus, these subparts are referred to as "referencing subparts."

Synthetic Organic Chemical Manufacturing Industry rules under other authorities (for example, RCRA), proposed rules, and rules potentially subject to significant changes (for example, wastewater hazardous organic NESHAP) were not included in this pilot effort. The EPA's intent was to keep the rule development process manageable in order to develop a practical CAR in a reasonable amount of time. If the SOCMI CAR is widely perceived as useful to industry and to enforcement agencies, EPA will consider these other SOCMI rules for consolidation at a later date.

The EPA also considered the following rules for similar inclusion: 40 CFR part 60, subparts GGG for petroleum refinery equipment leaks and KKK for onshore natural gas processing equipment leaks, and 40 CFR part 63, subpart I for certain processes subject to the negotiated regulation for equipment leaks. Although these rules do refer subject sources to the CAR's referencing subparts, they do not cover SOCMI sources. Therefore, EPA decided not to allow sources subject to these rules to comply with the CAR. This decision reflects EPA's decision to limit the coverage of the CAR to better assess the effects, enforcement, and implementation of the consolidation.

The vast majority of facilities affected by the rules in table 1 are SOCMI facilities; but some rules also affect non-SOCMI sources. For example, 40 CFR part 60, subparts Ka and Kb apply to storage vessels within SOCMI process units as well as those in non-SOCMI applications such as refineries and bulk storage facilities. Subpart DDD of 40 CFR part 60 (for certain polymers and resins production process vents) was included in the consolidation because these production units are often located at the same facilities as SOCMI units. The process vents for these production units are often shared, and the control methods and requirements are virtually identical. The consolidated part 61 subparts for equipment leaks and for benzene storage and transfer also apply to both SOCMI and non-SOCMI facilities. The consolidated part 63 rules apply solely to SOCMI facilities. The CAR is designed primarily for SOCMI processes, although co-located non-SOCMI sources might also take advantage of the CAR under certain circumstances. Section III of this preamble includes further discussion of which sources may choose to comply with the CAR.

The EPA is also proposing consolidated general provisions for the CAR by combining applicable requirements from the 40 CFR parts 60,

61, and 63 general provisions. These consolidated general provisions would become applicable once a source becomes subject to the CAR. General provisions are included in the consolidation so that the CAR will contain all relevant provisions, with certain noted exceptions, for sources complying with the CAR.

B. Overview of the CAR

The CAR is being proposed as a new part, 40 CFR part 65, since the rules being consolidated are located across three different parts of 40 CFR (parts 60, 61, and 63). The proposed CAR comprises subparts A through G of part 65. Part 65 will contain any future consolidated Federal air rules, as well.

The CAR is proposed as an optional compliance method for sources that are subject to one of the referencing subparts. The term ''referencing subpart(s)'' is used throughout 40 CFR part 65 and refers to the SOCMI regulations subject to the footnote in table 1. The CAR is designed to include all or most of the applicable provisions for a source that chooses to use the CAR as a compliance method. Sources that are not eligible or that choose not to comply with the CAR will continue to comply with the applicable referencing subparts with no change in compliance requirements.

Compliance with the CAR is allowed on a SOCMI CAR unit (SCU) basis. An SCU is analogous to the types of process units defined in the referencing subparts, and was developed specifically to describe the collection of equipment and emission points that are eligible to choose the CAR as a compliance method. The term ''SOCMI CAR unit'' is defined in the proposed part 65 general provisions (Subpart A) and is further described in section IV. A of this preamble. Under certain conditions, emission points that are not part of an SCU, but are subject to one of the referencing subparts, may also choose to comply with the CAR. These conditions are further described in section IV.A.

Applicability

The CAR does not alter applicability for any source. Sources may choose to comply with the CAR only when they are sources subject to a referencing subpart and specifically referred to the CAR by that subpart. Conversely, emission points or equipment that are not subject to any referencing subparts can not become subject through any provision in the CAR.

Along with the proposed CAR, today's notice proposes changes to the referencing subparts. These proposed changes add ''pointers'' to the CAR in each referencing subpart. The pointers are additions to the applicability sections that specify which sources may take advantage of the CAR and which subparts of part 65 would apply to each type of emission point.

New sources that become subject to a referencing subpart will consult the applicability provisions of that referencing subpart to determine eligibility to comply with the CAR. If a new source is part of an SCU that is implementing the CAR, the new source must also implement the CAR, or the entire SCU (existing and new components) must opt not to implement the CAR and comply with the applicable referencing subpart(s) instead. Further discussion of SCUs and options for choosing to comply with the CAR is presented in section IV.A of this preamble.

Subparts of the CAR

Figure 1 illustrates the structure of the CAR subparts. Subpart A contains the CAR's general provisions, which apply to all sources complying with the CAR. The general provisions cover applicability and definitions; the general requirements for compliance, performance tests, monitoring, recordkeeping, and reporting; administrative subjects. Note that some general requirements pertaining to Continuous Parameter Monitoring Systems (CPMS) are located in subpart G of the CAR.

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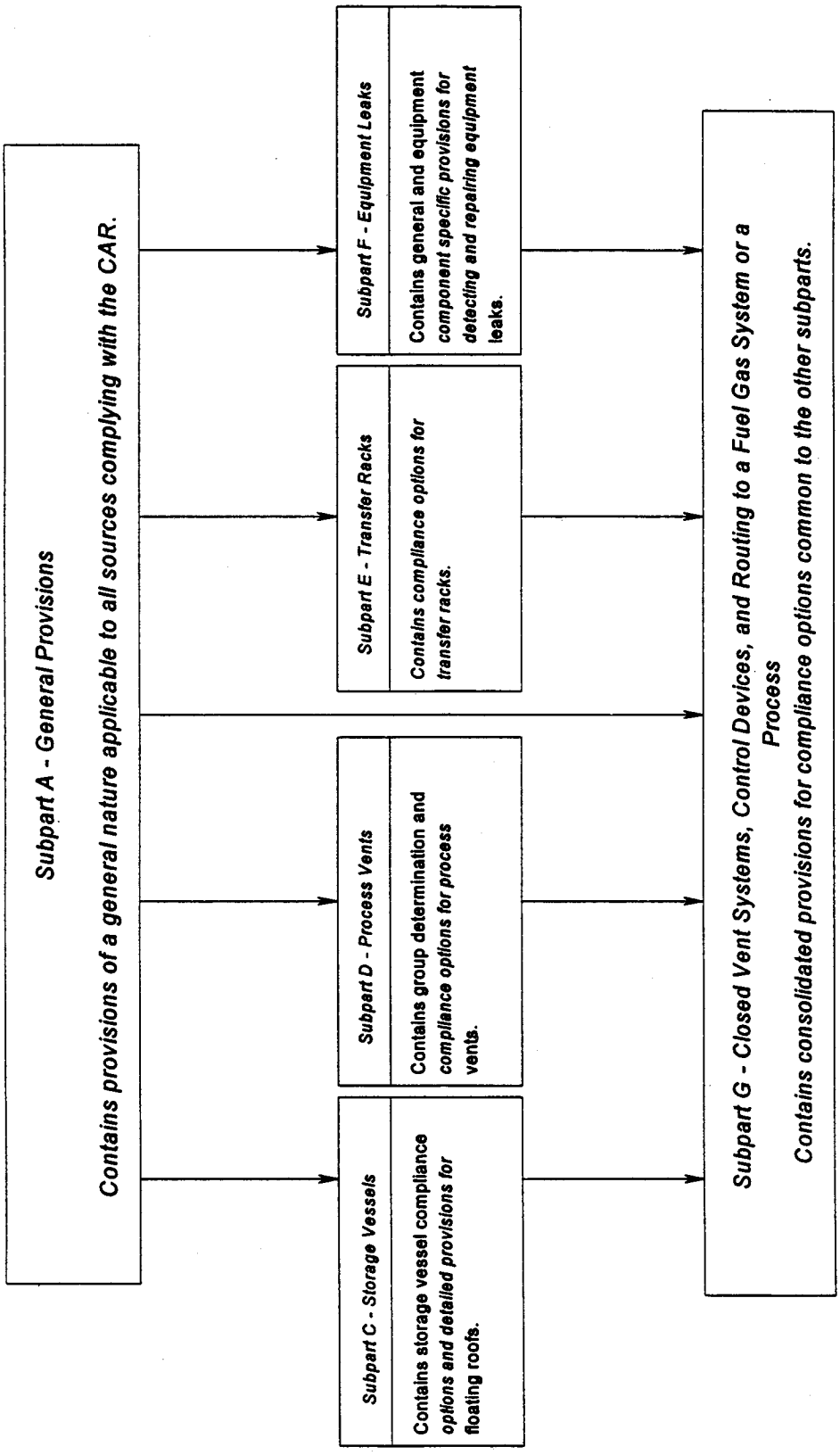

Figure 1. Structure of the CAR.

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Each of subparts C through F outlines the compliance options for a particular type of emission point. (Subpart B is reserved.)

- Subpart C—storage vessels,
- Subpart D—process vents,
- Subpart E—transfer racks, and
- Subpart F—equipment leaks.

Subparts C through F also contain the emission control requirements for some of these compliance options, and the associated compliance, monitoring, recordkeeping, and reporting requirements specific to those control options. However, if an owner or operator chooses to comply by either (1) a closed-vent system and add-on control device, or (2) routing to a fuel gas system or to a process as a compliance option, the source is further referred to subpart G. Subpart G contains the emission control requirements for closed-vent systems, control devices, and routing to a fuel gas system or process, including the associated testing, monitoring, data handling, reporting and recordkeeping requirements, and general requirements related to CPMS.

IV. How the CAR Works and Its Structure

The CAR is an optional compliance method for sources subject to the referencing subparts listed in table 1 of this preamble. The CAR is designed so that, once an owner or operator has chosen to comply with the CAR for a particular source, most of the relevant provisions for that source are contained in part 65. Compliance with the CAR is allowed for the collection of equipment that meets the definition of an SCU. In addition, sources that are not part of an SCU may also choose to comply with the CAR if they are (1) subject to one of the referencing subparts, and (2) located at the same plant site with an SCU that is complying with the CAR. Therefore, an owner or operator of a SOCMI facility may choose to comply with the CAR for all or some of the regulated sources subject to the referencing subparts at the facility.

This section of the preamble describes who can use the CAR, what part of a facility can comply with the CAR, and how the parts of the facility that can comply with the CAR are delineated. The rationale for these decisions is also explained.

A. How the CAR Works

Figures 2a and 2b present a thought process that might typically be used by an owner or operator when determining whether the CAR is right for their facility. This section of the preamble steps through these figures and each of their decision points. In doing so, how the CAR works and the rationale behind the CAR and it's facets are described.

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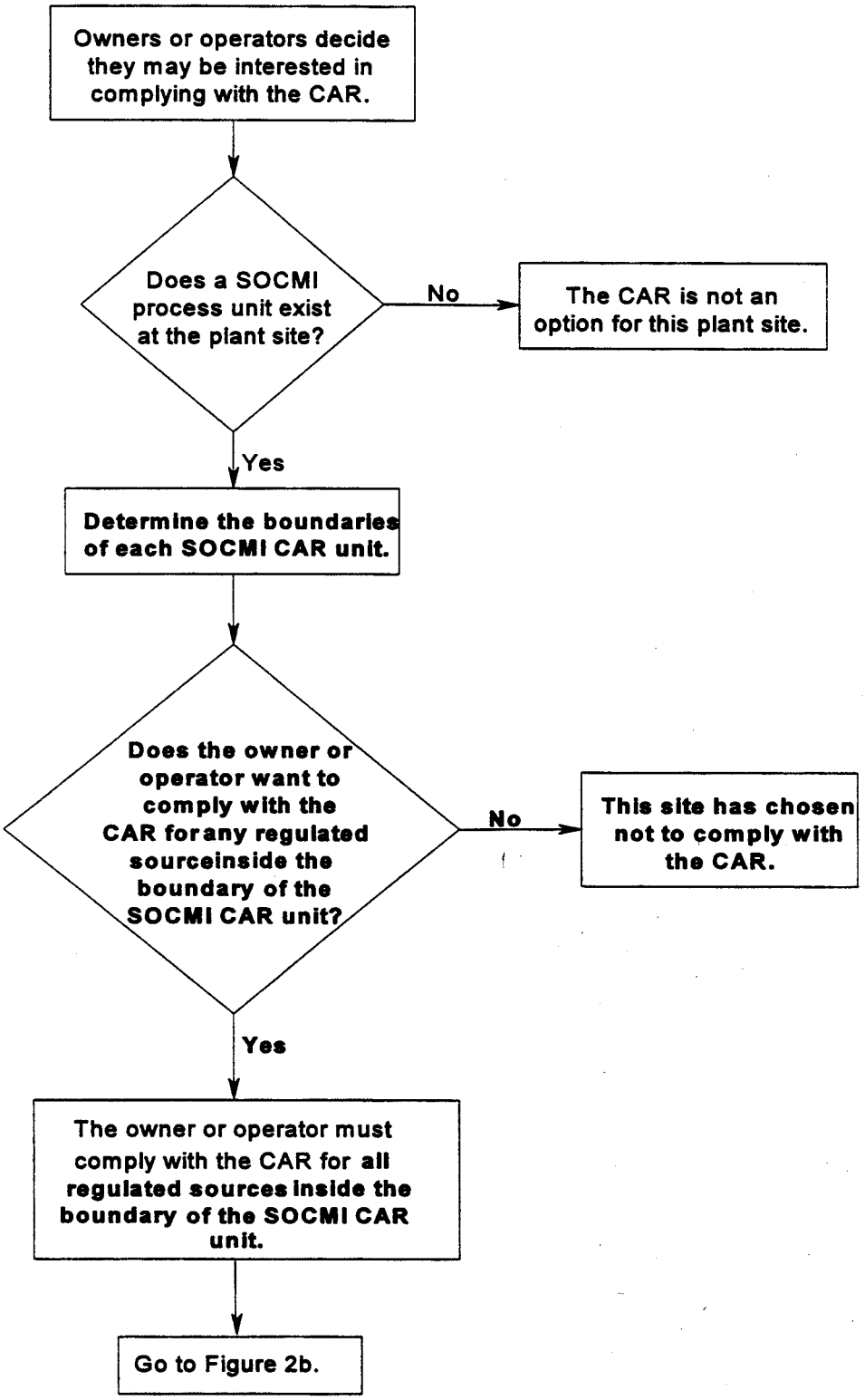

Figure 2a. How the CAR works, Part 1.

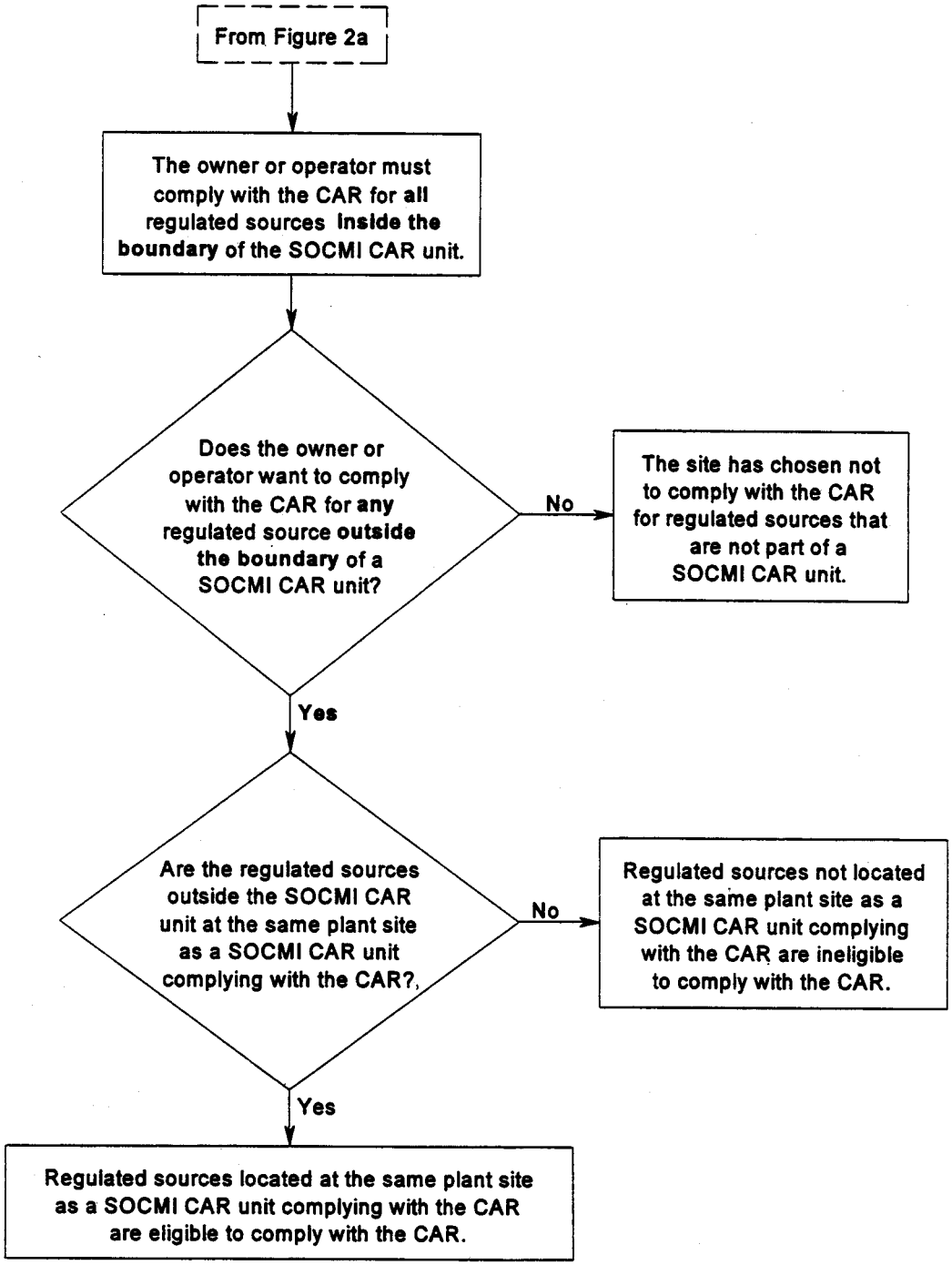

Figure 2b. How the CAR works, Part 2.

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What Is SOCMI?

As shown in figures 2a and 2b, once an owner or operator decides that the CAR may be of interest (i.e., they are subject to some referencing subparts and are wondering what the next step is), the first consideration would be whether or not the facility is a SOCMI facility. As discussed previously, the CAR only applies to SOCMI facilities. In the CAR, a SOCMI facility is considered any facility that is subject to 40 CFR part 60, subpart III, NNN, or RRR or the HON; or a facility that would have been subject to subpart III, NNN, or RRR had construction of the regulated source commenced after the applicability date of one of these rules.

In determining what should constitute a SOCMI facility in the CAR, EPA decided that a SOCMI facility should be any facility that considers itself part of that industry. The EPA reasoned that a facility would consider itself a SOCMI facility if it was subject to any of the SOCMI rules. The SOCMI rules are: 40 CFR part 60, subparts III, NNN, RRR, and VV (the NSPS), and 40 CFR part 63, subparts G and H [the Hazardous Organic NESHAP (HON)]. Defining a SOCMI facility as any facility that is subject to one of these rules is a simple matter. However, EPA also reasoned that some facilities may not have triggered a SOCMI NSPS or the HON but would consider themselves SOCMI because of the chemicals they produce. For example, crotonic acid is a chemical that is regulated as part of the SOCMI under 40 CFR part 60, subparts VV, III, and NNN, but not regulated as part of the SOCMI under the HON. Thus, a facility producing crotonic acid may not trigger the NSPS rules, but still would consider itself part of the SOCMI because it produces a SOCMI chemical. Therefore, EPA also considered facilities to be SOCMI facilities if they could trigger a SOCMI NSPS with a modification or reconstruction. The EPA considered this a reasonable decision since many non-SOCMI facilities could easily make a change that would trigger a SOCMI NSPS. The EPA decided that this concept would best be represented in the SOCMI definition based upon the construction date of the facility. This concept is handled in the definition with the following phrase: ''* * * if construction of the regulated source had commenced after the applicability date of the SOCMI NSPS.''

What Is a SOCMI CAR Unit?

The basic unit for determining CAR applicability is the SCU. This new term is needed in order to clearly designate and describe the particular combination of emission points that are eligible to comply with the CAR. The definition of SCU is modeled after the definition of ''chemical manufacturing process unit (CMPU)'' in the HON. The proposed CAR defines an SCU as the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product. The definition goes on to explain that the basic component of an SCU is:

- A process vent subject to 40 CFR part 60, subpart III, NNN, or RRR (the referencing subparts that are NSPS for SOCMI process vents); or
- Equipment subject to 40 CFR part 60, subpart VV (the referencing subpart that is the NSPS for SOCMI equipment leaks);
- A CMPU that is subject to the SOCMI HON.

Without at least one of these basic components, there is no SCU. The SCU also includes storage vessels, transfer operations, and equipment leak emission points that are associated with an SCU and are also subject to a referencing subpart. The EPA reasoned that in making the CAR optional and thereby providing more flexibility to industry, they might increase the complexity of implementing the CAR for regulatory authorities. This is because inspectors would have to know all of the referencing subparts and the CAR, and also understand which rule the facility had chosen to comply with for each emission point. To offset this potential increase in complexity, EPA decided that facilities would have the option to comply with the CAR, but must do so at least on a process unit basis so as to include a significant portion of the facility.

A process unit is a small enough collection of emission points and equipment to provide operational flexibility to the facility, but is a large enough collection to avoid confusion and undue burden for regulatory authorities. Furthermore, SOCMI facilities are typically managed on a process unit basis. Therefore, identifying process units and complying with the same monitoring, recordkeeping, and reporting requirements by process unit would be consistent with existing management activities. However, since the term ''process unit'' has many different meanings and connotations across the referencing subparts, EPA decided it would be better to define a new term for the CAR—SCU was chosen.

Assigning Equipment to a SOCMI CAR Unit

All storage vessels, process vents, or transfer racks connected to or operating with an SCU are not necessarily part of that SCU. Whether or not particular emission points or equipment are part of an SCU is determined by the assignment procedures prescribed in the proposed CAR general provisions. Assignment procedures are prescribed for emission points that are commonly shared between SCUs; these include storage vessels, transfer racks, and distillation columns which have process vents. In general, these assignment procedures follow common sense decisions as to the primary purpose of the equipment. For example, if a storage tank is dedicated to an SCU, then it is clearly part of that SCU. Similarly, if the storage vessel is shared among SCUs and other process units, its predominant use determines its assignment. The assignment procedures are used to draw the SCU boundary lines at the plant site. They are modeled after the assignment procedures in the HON.

An additional HON provision included in the CAR provides flexibility for equipment leak sources. If items of equipment (for example, pumps, valves, connectors) that are assigned to a particular SCU are managed by different administrative organizations from the rest of the SCU, those items of equipment may be reassigned to a similarly administered SCU.

Many existing NESHAP also contain assignment procedures for determining applicability on a process unit basis. Under the CAR, therefore, for SCUs that are also one of the following types of process units, the boundary or defined limit of the SCU defaults to that established for the following types of process units:

- CMPU as defined in the HON,
- Elastomer product process unit (EPPU) as defined in 40 CFR part 63, subpart U;
- Thermoplastic product process unit (TPPU) as defined in 40 CFR part 63, subpart JJJ;
- Petroleum refinery product process unit (PRPU) as defined in 40 CFR part 63, subpart CC.

Transfer operations will still need to be assigned to EPPUs, TPPUs, and PRPUs using the CAR's assignment procedures, since the rules in which these process units are defined do not include procedures for assigning transfer operations to process units.

A CMPU that is subject to the HON is, by definition, an SCU. The other types of process units noted above (EPPU, TPPU, and PRPU) would be an SCU only if they include a process vent or equipment that is subject to one of the SOCMI NSPS referencing subparts (*i.e.*, 40 CFR part 60, subpart III, NNN,

RRR, or VV), or that would have been subject to one of these referencing subparts had construction begun after the SOCMI NSPS subparts' respective applicability dates.

Opting To Comply With the CAR

As shown on figures 2a and 2b, once the facility determines the SCU boundaries, the next consideration is whether or not compliance with the CAR is desirable for any part of the SCU. In making this decision, the facility must keep in mind that compliance with the CAR is allowed an SCU basis only. Therefore, if the facility operator decides that complying with the CAR would be beneficial for any part of the SCU (for example, the storage vessels), either all regulated sources of the SCU must comply with the CAR, or all must regulated sources continue to comply with their respective applicable referencing subpart. Within an SCU, owners or operators may not choose to comply with the CAR for some emission points while continuing to comply with the referencing subparts for other emission points. Furthermore, if a facility operator has chosen to comply with the CAR for a particular SCU, then all existing and new regulated sources that are subject to referencing subparts must comply with the CAR. This includes any future additions to the SCU or any changes that trigger new source requirements.

In some circumstances, the CAR can apply to non-SOCMI emission points or equipment. The proposed CAR allows non-SOCMI emission points that are (1) subject to one of the referencing subparts, and (2) located at a plant site with an SCU that is complying with the CAR to also comply with the CAR. For example, a petrochemical plant containing one or more SCUs would also include a number of non-SOCMI emission points, such as petroleum or petroleum products storage vessels, or non-SOCMI benzene transfer racks. These non-SOCMI emission points would be subject to the same rules being consolidated for the SOCMI industry, such as 40 CFR part 60, subparts Ka, Kb, or Y, and 40 CFR part 61, subparts BB and V. Therefore, the source operator would be allowed to apply the CAR to any or all such affected non-SOCMI emission points, thus consolidating and simplifying an otherwise complex monitoring, recordkeeping, and reporting management system.

The EPA wants to ensure that, if a facility chooses to implement the CAR, a significant portion of the facility is included. The EPA intends to encourage the use of the CAR but without causing confusion concerning applicability. By requiring, at a minimum, an entire SCU to implement the CAR before non-SOCMI points can opt in, a reasonable balance is established to allow non-SOCMI points into the CAR. The EPA decided that, if a facility has made the decision to use the CAR, it should have the additional benefit of using the CAR for other emission points or equipment at the facility that are subject to a referencing subpart. This is a logical decision since control equipment and closed-vent systems often are shared among emission points or across SCU boundaries. In addition, EPA reasoned that this decision would facilitate implementation, because if more emission points are complying with the CAR at a facility, then fewer regulations will apply to the site, and fewer differences will exist in compliance, and recordkeeping and reporting methods used at the site.

Furthermore, since this rule has been developed solely for the SOCMI, to allow compliance for individual emission points with no SOCMI sources at the same site would both complicate enforcement and make the success of the consolidation effort more difficult to assess.

The general provisions of the CAR also allow a facility to cease to implement the CAR. In such cases, the regulated source becomes subject to the applicable referencing subparts. These procedures will be further discussed in section VI.B.

B. Structure of the CAR

Because the CAR would consolidate existing regulations from 40 CFR parts 60, 61, and 63, a new part 65 was created to contain the consolidated rule. Part 65 will contain the SOCMI CAR, as well as any future rule that consolidates Federal air rules for other industries.

The CAR has been developed as a set of subparts containing all the required elements relevant to a source owner or operator who chooses to comply with the CAR. Each subpart applies to a specific type of emission point or aspect of regulation. The general provisions (subpart A) address the administrative aspects of the regulation (for example, where to send reports, timing of periodic reports, definitions, how to request an alternative means of emission limitation), and those provisions which are widely applicable to all sources (for example, prohibitions and operation and maintenance requirements). Subpart C (storage tanks), subpart D (process vents), subpart E (transfer operations), and subpart F (equipment leaks) contain the compliance options and all the specific requirements for each of those types of emission points.

Subpart G contains all the provisions on closed-vent systems and control devices, including testing, monitoring, data handling, reporting and recordkeeping, and CPMS provisions. This was created as a stand alone subpart because provisions in each of the referencing subparts for closed-vent systems and control devices are very similar. By consolidating all of these provisions, much overlap, duplication, and minor changes in monitoring, recordkeeping, and reporting will be eliminated, and the requirements will be standardized.

Much consideration was given to the structure of the CAR. The EPA assessed the pros and cons of numerous options, but concluded the most workable approach is a modular CAR. This modular approach is designed such that once a source operator decides to comply with the CAR, all or most applicable provisions would be contained in the CAR. The source operator would not need to refer to the referencing subpart after applicability is established, unless specifically directed to do so in the CAR. For example, a process vent subject to 40 CFR part 60, subpart NNN (distillation NSPS) would be referred to subpart D of the CAR for applicable process vent requirements. If controls are required, the source would subsequently be referred to the CAR subpart G for closed-vent systems and control devices, and would not need to refer further to subpart D. Subpart G, for closed-vent systems and control devices, contains all the provisions needed to comply if a vent is routed to a control device. As noted in section VI.B of this preamble, sources complying with the CAR are subject to the CAR's general provisions (subpart A) and also to a few clearly noted provisions in the general provisions to the referencing subparts.

The CAR is also structured within each of the subparts to facilitate function and ease of use. The proposed CAR has been written with a more ''user-friendly'' approach, and the subparts more clearly delineate the requirements that would apply to each plant function. For example, the proposed storage vessel provisions contain distinct requirements for design, operation, inspection, and repair for each kind of storage vessel. This is intended to simplify tasks for the design group or the inspection group at the plant, and to avoid each group having to search the entire regulation for relevant requirements. The CAR's structure facilitates the consolidation of all recordkeeping and reporting activities into one system. Chemical plants subject to numerous NSPS and

NESHAP could combine multiple environmental management systems tracking multiple regulations into a single, simplified compliance effort.

V. Amendments to the Referencing Subparts

Along with the proposed CAR, today's notice also proposes changes to the referencing subparts. The proposed changes add ''pointers'' in the applicability sections of each referencing subpart. (The referencing subparts are indicated in table 1.) The pointers specify which regulated sources may take advantage of the CAR and which subparts of 40 CFR part 65 apply to each type of emission point. This section of the preamble outlines the amendments to the referencing subparts and how EPA implemented the decisions regarding the CAR in the referencing subparts.

A. General Concepts

The CAR uses the term ''regulated source'' to refer to whatever collection of equipment at a stationary source is regulated by a referencing subpart. For example, for 40 CFR part 60, subpart III, the regulated source is a process vent from an air oxidation unit; and for 40 CFR part 60, subpart VV, the regulated source is defined as equipment components at a process unit. The term ''regulated source'' is defined in the proposed CAR and is used throughout the CAR to refer to all of the equipment and emission points that are regulated by the applicable referencing subparts at a plant site. The term is used throughout this preamble in the same way.

The CAR does not alter applicability for any regulated source. In order not to alter the applicability of the referencing subparts, the pointer paragraphs are placed after the applicability paragraphs of the referencing subpart. Language such as ''storage vessels subject to this subpart'' is used in the pointer paragraphs to emphasize that only the emission points that are subject to the referencing subparts are eligible to comply with the CAR.

It is important to note that this is also true for equipment subject to the equipment leak rules. The HON rule covers more equipment types (for example, agitators) than 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V. It is EPA's intention that facilities choosing to comply with the CAR in place of 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, but which are not subject to the HON, would comply with the CAR only for the equipment types subject to the applicable parts 60 and 61 rules. For example, the CAR's provisions for additional equipment types covered by the HON (for example, agitators) would not apply to sources referenced to the CAR from 40 CFR part 60, subpart VV only. This concept prevents equipment that was not subject to requirements under a referencing subpart from becoming subject to those requirements solely due to CAR implementation.

Except for process vents, EPA decided to provide the CAR as a means of compliance only for emission points where emission reduction is required by the referencing subparts. The requirements for emission points where emission reduction is not required vary widely and are usually associated with establishing the applicability of the referencing subpart; examples of these requirements include records of vapor pressure for stored liquids, or records of the type of liquid transferred. These records are kept to show that any changes made have not caused an emission point to become subject to emission reduction. Therefore, with the exception of process vents as discussed below, only emission points subject to emission reduction under a referencing subpart are eligible to comply with the CAR. In addition, all efforts were made to not cross reference back and forth from the CAR to the referencing subparts; cross referencing would have been necessary to consolidate the requirements for emission points not subject to emission reduction.

An exception was made for process vents, however; all process vents subject to a referencing subpart can use the CAR to comply. This decision was made because in the process vent rules, the applicability cutoffs that determine whether emission reduction is required are very similar. The CAR incorporates the total resource effectiveness (TRE) index value calculation and other parameters used to determine whether a process vent must be controlled, monitored, or neither.

B. Description of Amendments

The main pointer paragraph in each referencing subpart specifies that an owner or operator may choose to comply with the CAR for all of the emission points that are part of an SCU and that require control under that subpart. Each main pointer paragraph specifies which requirements of the referencing subpart are satisfied by the CAR. The pointer refers to the applicability criteria so that only emission points subject to emission reduction are eligible to comply with the CAR, except for the process vent referencing subparts, as discussed above. The pointer paragraph also specifies the applicable subpart of the CAR. For example, a referencing subpart applicable to storage vessels would specify that 40 CFR part 65, subpart C can be used to comply.

In 40 CFR part 61, subpart BB, the language clearly states that railcars and tank truck loading racks are eligible to use the CAR for compliance, but marine vessel loading racks are not eligible. The EPA decided not to include marine vessel loading in the CAR, because, at the time the scope of the CAR was determined, standards for marine vessels were not finalized. (Since the CAR scope was set, National Emission Standards for Marine Tank Vessel Loading Operations, 40 CFR part 63, subpart Y, were finalized.) Also, the rules for marine vessel loading racks are different enough from railcar and tank truck loading that it was not possible to consolidate these requirements with the railcar and tank truck requirements.

Also proposed in most of the referencing subparts is a new paragraph labeled ''Alternative means of compliance—affected source basis.'' This provision specifies that an owner or operator may choose to comply with the CAR for emission points subject to emission reduction under the given referencing subparts that are not part of an SCU but are located at the same plant site as an SCU that is complying with the CAR; these are non-SOCMI emission points covered by a referencing subpart. This paragraph is not necessary for the referencing subparts that apply solely to the SOCMI (40 CFR part 63, subparts G and H, 40 CFR part 60, subparts III, NNN, RRR, and VV) because sources subject to one of these rules are, by definition, always a part of an SCU.

It should be noted that the proposed amendments to 40 CFR part 61, subpart V specify that if an owner or operator chooses to have equipment at a process unit comply with the CAR for a process unit that is not in a SCU but that is located at the same plant site as an SCU complying with the CAR, then all of the equipment within that unit must comply with the CAR. The EPA decided that all the equipment at a process unit must comply because it would be too confusing for implementation if individual equipment was allowed to comply with the CAR.

The proposed additions to the referencing subparts also specify that the CAR's general provisions, 40 CFR part 65, subpart A, supersede most of the provisions in the referencing subparts' general provisions (i.e., 40 CFR part 60, subpart A, 40 CFR part 61, subpart A, and 40 CFR part 63, subpart A). The provisions of the referencing subparts' general provisions that are not superseded are listed. These provisions

pertain to applicability, reconstruction, modification, and pre-startup activities. It is clarified that provisions which were required to be met prior to implementing the CAR remain in force. For instance, if a facility was required under the referencing subparts' general provisions to conduct a performance test, but the performance test had not been conducted, the facility would still be required to conduct the performance test even if it chooses to comply with the CAR. The facility would also be subject to any enforcement action that would apply for not meeting the requirements of the rule—the CAR does not rescind any past obligations.

The proposed amendments also specify that opting to use the CAR is an ''all or nothing'' decision for the regulated sources contained in an SCU. They state that the owner or operator must also comply with the CAR for all emission points that are part of the SCU and that are subject to any of the referencing subparts. For example, if an owner or operator of an SCU has storage vessels in that SCU that are subject to the requirements of 40 CFR part 60, subpart Kb (the NSPS for Volatile Organic Liquid Storage Vessels), and that owner or operator decides to comply with the CAR for those storage vessels instead of subpart Kb, then all of the equipment, process vents, transfer operations, or storage vessels that are part of that SCU must comply with the requirements in the CAR.

Additional amendatory language is added to subpart V of 40 CFR part 61 because certain sources are referred to subpart V from 40 CFR part 61, subparts F and J. Subparts F and J apply to equipment in vinyl chloride or benzene service, respectively. Therefore, the proposed amendments to 40 CFR part 61, subpart V specify that owners or operators of equipment subject to 40 CFR part 61, subparts F or J also may choose to comply with the CAR. All of the proposed amendments in 40 CFR part 61, subpart V allowing the choice to comply with the CAR would also apply to 40 CFR part 61, subparts F and J sources. These provisions include choosing to comply with the CAR on an SCU basis for all equipment and emission points at an SCU, and choosing to comply with the CAR on a regulated source basis for equipment or emission points at the same plant site as an SCU complying with the CAR.

The EPA is allowing the CAR compliance option for sources subject to 40 CFR part 61, subparts F and J primarily because these subparts refer subject sources to part 61, subpart V, and these sources are often part of SCUs. Non-SOCMI sources subject to subparts F and J can implement the CAR, but only if there is an SCU on site implementing the CAR.

In addition to the proposed CAR-related amendments to 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V, several other amendments to these rules are being proposed with today's action. These additional proposed amendments are not necessary for implementation of the CAR; rather, they would update the rules to reflect current safety and clarity improvements for equipment leak rules. Section XI of this preamble provides details on these proposed amendments.

VI. Summary of the Proposed Rule and Significant Decisions in Rule Consolidation

A. Basis for the CAR (Optional Implementation)

The CAR is being proposed as an optional compliance alternative. Several different approaches for the CAR were considered, including mandatory compliance for SOCMI sources subject to the consolidated subparts, with varying phase-in schedules. Different options were also explored that allowed optional compliance for some sources and mandatory for others. However, the optional compliance approach reflected in the proposed CAR optimizes the benefits for affected sources while assuring that stringency will not be compromised. The CAR provides significant benefits to sources, as described in this section and section X of this preamble, primarily through burden reduction, simplification, and clarification. Implementing agencies will realize complementary benefits in that, for sources complying with the CAR, compliance requirements will be simplified and clarified, records and reports will be considerably consolidated, and compliance determination will be more straightforward. Because both the industry and enforcement personnel would be dealing with a single rule with consistent requirements, conflicting interpretations and misunderstandings should be reduced.

On the other hand, despite the potential benefits of the CAR, if EPA were to make the CAR mandatory, a significant burden in the short term might be created as sources made the transition to the CAR. The EPA recognizes that some SOCMI plant sites subject to only one or two of the referencing subparts would derive limited or no benefit from the consolidated rule. Chemical plants with a small number of regulated emission points (for example, a few storage tanks) and a well-established compliance plan could incur an added burden if required to become familiar with and implement the CAR. Some plants have data handling, monitoring, recordkeeping, and reporting systems in place for the requirements and format of the existing rules; the added initial cost to comply with the CAR could be significant compared to the benefit. The relative costs and benefits realized by plants would depend on several factors, including the size of the plant, the number of regulations that currently apply, the company's perception of benefits, and long-term burden reductions that would accrue from compliance with the CAR.

In addition, if EPA were to make compliance with the CAR mandatory, it would create a conflict between maintaining current stringency levels and striving for simplicity and consolidation. To avoid increasing the stringency of applicable requirements for any affected source, the CAR would either have to consolidate at the lowest common denominator (i.e., least stringent provisions), or consist of a collection of provisions of different stringencies. The former solution is environmentally unacceptable, and the latter solution results in an overly complex rule that forfeits many of the benefits of consolidation.

In order for the CAR provisions to be at least as stringent as the underlying rules and to also achieve complete consolidation, it was necessary to select the most stringent of the referencing subparts as the basis for the CAR. In this case, the HON was deemed to include the most stringent control options. Although several other referencing subparts contain the same control requirements (for example, for process vents), the HON provides additional compliance flexibility in many cases. This flexibility has been adopted in the CAR.

The Agency concluded that the presumption of a mandatory CAR was inconsistent with a simplification. Sources can choose to implement the CAR or continue to implement the underlying subparts, depending on their situation and what they see as more advantageous.

Enforcement representatives supported the simplicity of the CAR over the numerous existing rules. The benefit to enforcement personnel is not as great for an optional CAR as it would be for a mandatory CAR, since the implementing agency would still need to support implementation and enforcement of the underlying rules as well as the CAR. However, the implementation burden will be eased at

those sources that choose the CAR. In addition, sources implementing the CAR may increase their emission reductions since the CAR will be more stringent for some emission points.

The EPA weighed the advantages and disadvantages of the various approaches and concluded that an optional CAR with one set of requirements would be the most workable and acceptable.

As the development of the CAR proceeded, the provisions in each of the referencing subparts were carefully assessed for relative stringency as well as for the relative merits of the language and presentation of the requirements. The EPA concluded that the HON provided the best starting point for developing consolidated provisions for the CAR as an optional compliance mechanism. The HON was promulgated in 1994 (with several subsequent amendments) and reflects an improved understanding of control approaches for the SOCMI. Furthermore, the control provisions of the HON, in general, represent the most stringent and comprehensive pollution control requirements of the referencing subparts consolidated in the CAR. Therefore, they provide the most appropriate level of control for the CAR, given EPA's objective of not compromising stringency in consolidation. In addition, where the HON and another subpart apply to the same emission point, the HON requirements generally override those of the other subpart, with some exceptions.

Over the years during which the referencing subparts were promulgated, EPA and the SOCMI have continuously enhanced their understanding of emission control technology for SOCMI sources. Development of the HON benefitted from this enhanced understanding and from significant industry input regarding the operation of SOCMI facilities. Because the HON was developed to reflect a refined approach to regulating the SOCMI, it reflects substantial burden reduction, clarity of language, and flexibility in compliance options.

The EPA strives to continually reduce the compliance burden associated with regulations promulgated under the Act. As both EPA and State agencies have gained experience with and understanding of compliance and enforcement issues, EPA's regulatory approaches have evolved to incorporate more streamlined and flexible compliance approaches. The HON provisions include many elements of flexibility that substantially reduce the compliance burden. The HON language also makes explicit many requirements that are implied in the other referencing subparts. Such clarifications promote consistent compliance and enforcement and, in some cases, constitute a burden reduction by eliminating guesswork and uncertainty.

While the HON reflects an updated approach to SOCMI regulation, many of the basic elements of the referencing subparts are still very similar to the HON. For storage vessels, the provisions in 40 CFR part 60, subpart Kb and 40 CFR part 61, subpart Y are very similar to the corresponding HON provisions (40 CFR part 63, subpart G). The most significant differences among storage vessel provisions occur between the HON and 40 CFR part 60, subpart Ka. However, there are markedly fewer sources subject to subpart Ka than to the other storage vessel subparts consolidated.

Likewise, the HON's provisions for process vents are very similar to those in all of the consolidated process vent rules. In fact, the performance standards are virtually the same across all consolidated process vent regulations. The CAR's provisions for transfer operations consolidate 40 CFR part 61, subpart BB and the HON transfer operation provisions (40 CFR part 63, subpart G). The HON provisions provide increased compliance flexibility over subpart BB without compromising stringency.

Equipment leak provisions in the CAR are also based on the HON language but include some significant improvements. These improvements do not change stringency but enhance the simplicity, clarity, and ''user-friendliness'' of the provisions. Subpart G of the CAR, the closed-vent system and control device provisions, represents a different approach to the order and presentation of regulatory requirements. While the CAR subpart G is based on the HON's language, its organization and structure are different in that the closed-vent system and control device requirements for all emission points (i.e., storage, transfer, process vents, and equipment leaks) with associated closed-vent system and control devices are all presented in one consolidated subpart.

While the HON has provided a good starting point for the CAR, the consolidation effort included substantial modification to some of the HON language as well as important additions and deletions. Many of the modifications are clarifications of HON language or changes that incorporate CAR terminology. All provisions in each of the referencing subparts were assessed and compared for consolidation. In some cases, language from a referencing subpart other than the HON was deemed more appropriate for the CAR. The following sections of this preamble (VI.B through VI.H) provide a detailed description of each subpart of the CAR and the significant decisions regarding (1) changes to HON language, and (2) the ramifications of using the HON language for sources referenced from 40 CFR parts 60 and 61. Also noted are instances where language from referencing subparts other than the HON is used.

B. General Provisions

The part 65 general provisions consolidate the general provisions applicable to SOCMI sources from subparts A of 40 CFR parts 60, 61, and 63. In addition, provisions in the HON, 40 CFR part 63 subparts, F and G, that are general in nature are also consolidated in the part 65 general provisions. These particular provisions are designated in the HON as overriding the corresponding requirements in the part 63 general provisions. These overriding provisions apply to SOCMI sources and therefore were consolidated in the proposed CAR general provisions. (The HON overrides are listed in table 3 of 40 CFR part 63, subpart F).

The consolidated general provisions focus on administrative aspects and broad requirements that are generally applicable to all sources complying with the CAR, such as definitions, operation and maintenance requirements, general recordkeeping and reporting procedures, and compliance determination. Also included are administrative provisions concerning availability of information, state authority, delegation, circumvention, addresses for report submittal, and incorporation by reference. Although the general provisions to the referencing subparts contain provisions regarding add-on control equipment, testing, and monitoring, these types of requirements are consolidated in the CAR's subpart G as described in section III.B of this preamble.

Consolidated general provisions for the CAR eliminate much of the complexity of the general provisions to the HON. In the CAR general provisions, an ''override'' table for general provisions, such as that in the HON, is not necessary, since all applicable provisions have been brought into, or are referenced in, the CAR. All of the applicable provisions that are general in nature are contained in one CAR subpart, eliminating the complexity inherent in the HON where general requirements are contained in three different subparts (40 CFR part 63 subparts A, F, and G). Non-applicable requirements have been eliminated. For example, no continuous emissions

monitoring system (CEMS), opacity, or particulate matter provisions are included in the CAR since they are not applicable, thus reducing the amount of text that must be read and understood.

Although every effort has been made to make the CAR a stand-alone rule, as noted in section IV above, there are certain requirements in the general provisions to the referencing subparts that are not addressed in part 65 and that still remain applicable to sources complying with the CAR. Requirements dealing with pre-startup activities, applicability, modification, and reconstruction are still governed by the underlying general provisions in 40 CFR parts 60, 61, and 63. The part 65 general provisions include a table (table 1 of 40 CFR part 65, subpart A) specifying the paragraphs and sections in each part's general provisions that still apply to sources complying with the CAR. Since the CAR does not alter the applicability of any of the underlying subparts, these general provisions regarding applicability must also remain applicable.

In addition, owners and operators who choose to comply with the CAR are still obligated to fulfill requirements that applied while they were complying with a referencing subpart. For example, if a facility is required by a referencing subpart to complete a performance test, opting to comply with the CAR does not remove the requirement to conduct a performance test or protect the source from enforcement actions for not completing the test.

Discussion in the following paragraphs highlights the primary differences between the general provisions for the proposed CAR and those for the referencing subparts.

Applicability

Regulated sources may comply with the CAR only if they are subject to one of the referencing subparts and are specifically referenced to part 65. Further discussion of eligibility to comply with the CAR and how the eligibility is presented in the referencing subparts is contained in sections IV.A and V of this preamble, respectively.

The applicability provisions also include requirements for implementation of the CAR. An implementation schedule is required and must be established either through a title V permit application or permit modification for title V sources, or in the Initial Notification of Part 65 Applicability for non-title V sources. In either case, the implementation schedule can not extend for more than 3 years, and the provisions prohibit any gaps in compliance between complying with the referencing subpart and implementing the CAR. A maximum of a 3-year implementation period is allowed because there will be some facilities that will need time to install equipment or otherwise prepare for compliance with the CAR for some individual emission points. In these cases, the facility can begin taking advantage of many of the burden reductions by complying with the CAR for most emission points while preparing for compliance for a few emission points. These few emission points would continue to comply with the appropriate referencing subpart. Many facilities will be able to comply with the CAR with few adjustments or additions at their facility, and a 3-year implementation schedule will not be necessary.

As described above in section IV.A, new sources that become subject to a referencing subpart must consult the applicability provisions in that referencing subpart to determine eligibility to comply with the CAR. New regulated sources (for example, storage vessels or distillation vents) that are part of an SCU that is complying with the CAR would also have to comply with the CAR, or the entire SCU (including the new regulated source) would have to opt not to comply with the CAR. For new sources choosing upon startup to comply with the CAR instead of the applicable referencing subpart, the implementation date is at initial startup.

The proposed CAR also provides for owners or operators deciding to no longer comply with the CAR and to comply, instead, with the applicable referencing subpart(s). Title V sources must propose a transition date in a title V permit amendment; non-Title V sources may propose a transition date in a periodic report or in a separate notice. The provisions requiring compliance on an SCU basis would still apply, and owners or operators must make the transition to the referencing subparts for an entire SCU, not for individual emission points. The transition must ensure that no gaps in compliance occur; the SCU must be in full compliance at all times with either the CAR or the applicable referencing subparts.

Definitions: General

The CAR consolidates the definitions from the 12 referencing subparts, 40 CFR part 63, subpart F and the general provisions of 40 CFR parts 60, 61, and 63 into one definition section. In developing the definitions for the CAR, EPA assessed all of the definitions in the referencing subparts and all of the definitions in the applicable general provisions. Many terms defined in the CAR have been defined in one or more of these subparts. In some cases, slight variations exist in definitions for which no substantive difference was intended. The EPA recognized that multiple definitions for the same term or phrase has led to confusion in the past. Therefore, a single set of definitions was developed for implementing the CAR and is included in the proposed general provisions.

Since the HON language provides the basis for the CAR, the HON definitions are used in the CAR for most terms. However, definitions have been added or modified in the CAR for several reasons. New terms have been defined either to reduce wordiness and redundant language, or to designate a single term to replace many similar terms from all the referencing subparts. In some cases, definitions from the HON have been modified to improve clarity or to make requirements more explicit. A few terms in the CAR are taken from referencing subparts other than the HON.

The goal of consolidating definitions in the CAR general provisions was to provide clear definitions and to avoid using different words to mean the same thing. The more recent SOCMI rules elaborate on definitions to avoid misinterpretation or implementation problems that arose in earlier rules. The newer definitions expand and elucidate, but they do not change the original intent of the rule. The more significant definition changes and additions are noted as follows.

Definitions: New

Several terms not defined in any of the referencing subparts or their general provisions are introduced in the CAR. Some of these terms incorporate important concepts that need to be defined for the CAR; these include the following.

A new definition for ''empty or emptying'' for storage vessels was added for clarification. This definition helps to clarify when a storage vessel is considered empty. In particular, lowering the stored liquid level so that a floating roof rests on its legs, as necessitated by normal operations, is not considered emptying. Further discussion of issues associated with the emptying of storage vessels is presented in the Storage Vessel section of this preamble (section VI.C).

A new definition for ''low throughput transfer racks'' was added to clarify requirements for these racks that are subject to the closed-vent systems and control device requirements. Low throughput transfer racks require a

design evaluation, while high throughput transfer racks require a performance test.

The term ''closed-vent system shutdown'' was added to the CAR to distinguish a shutdown affecting a closed-vent system from a shutdown affecting a process unit. Different requirements apply for process unit shutdowns and for closed-vent system shutdowns, and the two terms therefore need to be distinguished.

Several new terms were added to the CAR to provide a single general term to replace several different terms used in the referencing subparts. These include the following.

Definitions for ''regulated material,'' ''in regulated material service,'' and ''regulated source'' were created for the CAR to generalize the pollutant [volatile organic compounds (VOC), total organic compounds (TOC), hazardous air pollutants (HAP), etc.] and the source (affected facility, affected source, etc.) being regulated. The referencing subparts specify the regulated pollutant(s) and define the source, either in the title of the standard or in the applicability provisions prior to referring sources to the CAR. Therefore, while the term used in the CAR is new, pollutants and sources regulated in the referencing subparts do not change in the CAR.

''Process unit'' and ''process vent'' are defined in the CAR to encompass the definitions from all of the referencing subparts. The definition of ''process unit'' includes the equipment specified by the definition of ''chemical manufacturing process unit'' in the CAR. The CAR also provides a definition for the ''process unit'' which is to be used when there is no definition for the term in the referencing subpart.

''SOCMI CAR Unit'' was added to the CAR definitions to describe the boundary of the entity subject to the CAR. A detailed discussion concerning SCUs is included in section IV.B of this preamble.

Other new terms were defined in the CAR to reduce wordiness or redundancy. A new definition for ''control system'' was added to simplify language referring to control devices and their associated closed-vent system. A control system is simply the combination of a closed-vent system and a control device. Using a single term to include both closed-vent systems and control devices simplifies the language.

Three new definitions were added to describe internal and external floating roof failures: ''failure, EFR'', ''failure, IFR type A'', and ''failure, IFR type B.'' Two new definitions were added to describe which process vents require monitoring and which ones do not: ''Group 2A process vents'' and ''Group 2B process vents.'' Adding these definitions avoids having to repeat lengthy text describing the specific floating roof failures or the two types of Group 2 process vents each time they are referred to in the regulation.

Definitions: Modified HON Definitions

Many of the definitions incorporated from the HON have been modified, primarily for clarity of language or to specify the particular types of emission points (for example, equipment leaks) to which a term applies. The modifications to the HON definitions are described as follows.

To comply with the HON process vent requirements, an owner or operator has several compliance options, one of which is to collect and route process vent emissions to a control device. There are two broad categories of control devices, combustion devices (such as a boiler or incinerator) and recapture devices (such as a condenser or absorber). Absorbers, condensers, and carbon adsorbers are often used as recovery devices designed to return recovered material to the process; if the recovered material from these devices is disposed of, then the device qualifies as a recapture device and can be used as a control device.

The HON contains similar definitions for ''control device'' in both subparts F and G. The CAR definition is based on the HON definitions, which include language stating that for process vents in general, a product recovery device can not be used as the control device if the owner or operator is complying by routing emissions to a control device. Recovery devices are equipment normally used for the purpose of recovering chemicals for fuel value, use, reuse, or for sale; control devices, on the other hand, are equipment that reduce emissions of regulated material to the atmosphere through combustion or some other means.

The CAR includes additional language in the control device definition clarifying that some particular recovery devices can be considered control devices. This requirement is the same in the HON, however, the HON does not clarify it in the control device definition. In summary, a recovery device is allowed to be considered a control device for process vents if (1) it was installed prior to 1993, (2) it is the last recovery device before venting to the atmosphere, (3) it is capable of meeting the 98 percent reduction standard, but it is not capable of achieving the 20 parts per million (ppm) standard, and (4) the recovery device must comply with control device requirements if the recovered material is disposed. The use of recovery devices with process vents is further discussed in section VI.E of this preamble.

In the definition of ''equipment,'' the CAR includes new language clarifying that the definition applies only to equipment leak provisions. The word ''equipment'' is used in a more general sense in other subparts.

The CAR definition of malfunction differs from the HON in that it includes monitoring equipment as equipment to which the malfunction provisions apply. The HON definition of malfunction incudes air pollution control equipment, process equipment, or a process, but does not include monitoring requirement.

In the definition of ''open-ended valve or line,'' the reference in the HON definition to ''pressure relief valves'' was changed to simply ''relief valves'' since it is intended to also include relief valves that do not necessarily relieve pressure.

The definition of ''organic monitoring device'' is taken from the HON but has been modified to clarify that an organic monitoring device can be used at locations other than at an exiting recovery device.

Process heaters and boilers both are types of enclosed combustion devices. General requirements for enclosed combustion devices, as well as specific requirements for process heaters versus boilers, are contained in the CAR. When comparing the process heater definitions in the referencing subparts confusion exists as to which enclosed combustion devices are process heaters and which are boilers. The ''process heater'' definition in the CAR is based on the HON definition, but the phrase ''enclosed combustion'' is added for clarity. In addition, the CAR adds language specifically including heating water as a secondary function of a process heater. The HON definition could have been interpreted to exclude heating water as a function of process heaters.

In the CAR, the HON definition of ''recapture device'' was modified to clarify that, for purposes of monitoring, recordkeeping, and reporting, recapture devices are subject to the same provisions as recovery devices. The same sentence was added to the definition of ''recovery device'' to reinforce this clarification.

The definitions of ''repair'' and ''first attempt at repair'' are very similar to the HON definitions but were modified in the CAR to clarify that the definitions apply to equipment leak requirements

and not to other emission points such as storage vessels.

Similarly, the definition of ''set pressure'' is from the HON subpart H but is clarified in the CAR to specify that it applies only to equipment leak provisions.

''Routed to a process or route to a process'' is defined as it is in the HON subpart H, except that in the CAR the phrase ''by hard-piping or a closed-vent system'' is deleted. Emissions vented to a process are not considered to be vented through a closed-vent system and therefore are not subject to the closed-vent system requirements. This change is made for clarification and consistency with the CAR's use of the closed-vent system terminology, and it does not affect the intent or the regulatory requirements. Striking ''by hard-piping'' allows flexibility in the types of equipment (i.e., ductwork) that can be used to route to a process.

The CAR's definition of ''closed-vent system'' is taken from the definition in subpart G of the HON, but changes were also made to this definition to help clarify which equipment is included in a closed-vent system and, therefore, subject to the closed-vent system requirements. The CAR definition of closed-vent system excludes systems that transport gas or vapors back to a process. Under the CAR, a closed-vent system is a system routing vapors to a control device; piping that routes vapors back to a process is not considered a closed-vent system. The CAR definition of ''closed-vent system'' also has additional language added to exclude vapor collection systems that are part of a tank truck or rail car, and to clearly describe where the system begins on transfer racks. It should be noted that the phrase ''open to the atmosphere'' does not include air or inert gas intakes for systems where gas make-up is needed to prevent pulling a vacuum.

The CAR definition of ''run'' for a performance test combines the definitions from the general provisions of 40 CFR parts 60, 61, and 63. As such, it adds language to the HON definition clarifying that a run may be either intermittent or continuous, within the limits of good engineering judgement.

The definition ''temperature monitoring device'' is changed in the CAR to require an accuracy of ±1.2 degrees Celsius, as opposed to ±0.5 degrees Celsius in the HON. The EPA believes, based on investigations undertaken in this effort, that temperature monitoring devices with the ±1.2 degrees Celsius accuracy are more widely available, are in place at more plant sites, and are adequate for demonstrating compliance.

The definition of ''total resource effectiveness index value or TRE index value'' as defined in the HON was modified in the CAR to better describe the purpose of the index. This modified definition is considered more useful for compliance purposes.

The definition of ''total organic compounds'' is similar to the definitions in the referencing subparts. One aspect of the definition, however, could not be consolidated. Total organic compounds, or TOC, is a term in the TRE index value equations. As discussed in more detail under the process vent section (see section VI.D), the TRE index value determination cannot be consolidated because of the different approaches presented in the HON and the non-HON process vent referencing subparts. To maintain the necessary distinction for TRE index value determinations, the TOC definition in the CAR states that, for the non-HON referencing subparts, TOC does not include compounds ''that the Administrator has determined do not contribute appreciably to the formation of ozone.''

A few definitions in the CAR are taken from referencing subparts other than the HON because the terms are not defined in the HON. These include, for example, ''distance piece'' from 40 CFR part 60, subpart VV and ''stuffing box pressure'' from 40 CFR part 61, subpart V. These are useful terms in the CAR and definitions for them are considered helpful for understanding equipment leak provisions.

As HON definitions were incorporated into the CAR, some editing was required to remove references to specific provisions in the HON. Generally, the references to HON provisions were edited to refer to the corresponding provision in the CAR, or in some cases, the definitions were edited to incorporate the meaning or context of the referenced provision. For example, a definition for ''initial startup'' has been developed for the CAR to specify the point of initial startup for various cases and situations. This definition encompasses all of the different situations described in the referencing subparts that entail an ''initial startup.'' These include new or reconstructed sources as well as certain specified additions or changes not defined by the referencing subparts as a new source. The CAR definition of ''initial startup'' incorporates the description of additions and changes from § 63.100(l) and (m) of the HON that would trigger an ''initial startup.''

Definitions: Changes to Definitions of 40 CFR Parts 60 and 61

The use of HON definitions as the basis for the CAR implies changed definitions for sources referred from the other referencing subparts. In general, these differences do not constitute substantive changes to the rule, but provide improvements in clarity and simplification of requirements. For example, some of the CAR terms, while not defined in the part 60 and 61 referencing subparts or their general provisions, are used in their regulatory language (for example, initial startup). Other terms defined in the CAR introduce new concepts that were not needed in the part 60 and 61 referencing subparts. For example, the CAR provides new means of compliance such as fuel gas systems and vapor balancing systems; therefore, these terms are defined in the CAR. However, most of the differences in definitions between the CAR and the non-HON referencing subparts result from the CAR incorporating a HON definition that is different from the corresponding non-HON definition. The more significant definition changes relative to the non-HON referencing subparts are as follows.

The CAR incorporates the HON definition of ''alternative test method'' which requires that alternative test methods be validated using Method 301 of appendix A of 40 CFR part 63. Method 301 validation, a more recently developed approach unavailable to older rules, is not required by the non-HON referencing subparts. The EPA now uses Method 301 to validate proposed alternative test methods. Therefore, requiring its use by the regulated source simply ensures consistency in evaluating alternative methods, and will codify what is already being done.

In 40 CFR part 60, subpart DDD and 40 CFR subpart 61, subpart BB, the definition of ''car seal'' includes the regulatory requirement to replace a broken car-seal with a new seal. In general, definitions are not appropriate locations for enforceable requirements. Therefore, the CAR adopted the definition from the HON and 40 CFR part 60, subpart RRR. The requirement for replacing broken car-seals is included in the closed-vent system provisions of subpart G of the CAR.

The CAR's definition of ''closed-vent system'' is taken from the definition in subpart G of the HON but has additional language added to exclude vapor collection systems that are part of a tank truck or rail car, and to clearly describe the system boundaries for transfer racks.

The CAR definition differs from those found in 40 CFR part 60, subparts III, NNN, and RRR with respect to this clarification for vapor systems.

The CAR includes the definition of ''continuous parameter monitoring system'' from part 63. This term replaces the ''monitoring device'' definition in part 60 and is used for consistency; it does not constitute a change in monitoring requirements.

The CAR's definition of ''connector'' is taken from the HON and explicitly excludes certain types of connectors that are included under the definitions of ''connector'' in 40 CFR part 60, subpart VV and 40 CFR part 61 subpart V. The CAR excludes joined fittings that are welded completely around the circumference and, for purposes of recordkeeping and reporting, inaccessible fittings and ceramic or ceramic lined fittings.

''Halogenated vent stream or halogenated stream'' is defined in 40 CFR part 60, subparts III, NNN, and RRR based on parts per million by volume (ppmv) of halogenated compounds in the stream (20 ppmv or greater). The CAR incorporates the HON definition, which defines a halogenated stream on the basis of mass emission rate of halogen atoms (0.45 kilograms per hour). Further discussion of issues associated with determination of halogenated vent streams is included in section VI.D of this preamble.

The CAR definition of ''liquids dripping'' is taken from the HON subpart H. It is more explicit than the definitions in 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V in that it includes examples of what constitutes indications of liquids dripping.

''Process unit shutdown'' is defined in all of the referencing subparts for equipment leaks. The CAR uses the definition from the HON subpart H, which differs from the other referencing subparts in clarifying when a process unit shutdown has occurred. The CAR definition explicitly states that a process unit shutdown has occurred only when (1) the shutdown is planned, (2) it occurs under appropriate safety constraints, and (3) repairs can be effected. Furthermore, a ''process unit shutdown'' has not occurred if the shutdown is (1) unplanned, and (2) lasts for too short a time for process material to be cleared from the process unit, and results in greater emissions than would occur with delay of repair.

The CAR definitions of certain control devices include several changes relative to the referencing subparts. The basic definition of ''boiler'' is similar across all the process vent referencing subparts. However, the definition in 40 CFR part 60, subpart RRR and the HON contain additional language stating that ''boiler'' does not include incinerators. The HON definition also states that ''boiler'' does include industrial furnaces. The CAR definition includes both these additions (incinerators are not boilers, industrial furnaces are boilers) as well as a third addition stating that process heaters are not boilers.

The CAR's definition of ''incinerator'' is unmodified from the HON. The definition in 40 CFR part 60, subparts III and NNN, and 40 CFR part 61, subpart BB specifically state that an incinerator ''does not extract energy in the form of stream or process heat.'' However, the CAR definition clarifies that there can be a recovery section to an incinerator as long as it is a separate section that is not manufactured or assembled as a single unit with the combustion section. The CAR definition also clarifies, relative to subparts DDD and III that an incinerator can use auxiliary fuel to heat waste gas.

The CAR definition of ''process heater'' provides a similar clarification that, although heating water can not be the primary function of a process heater, heating water or generating steam can be a secondary function.

The definitions of ''repair'' and ''first attempt at repair'' are consistent with those in 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V, but they include additional language from the HON stating that monitoring to verify repair is required as part of the repair.

The definition of ''start up'' is taken from the HON. It clarifies what is included in ''start-up'' definitions in parts 60 and 61 by specifying some examples of equipment and activities included in start up.

Compliance With Standards and Operation and Maintenance Requirements

In § 65.3, the CAR general provisions consolidate provisions regarding compliance with operation and maintenance requirements. These provisions are consistent with the provisions in 40 CFR part 63. The main source of burden reduction and clarity improvements for these provisions lies in the fact that provisions contained in 40 CFR part 63 subparts A, F, G, and H have been consolidated in one location. Small wording changes were made for clarity and to modify text to fit the CAR structure. For example, the HON states that use of acceptable operation and maintenance procedures can be determined based on (among other things) a startup, shutdown, and malfunction plan. The CAR provisions clarify that the startup, shutdown, and malfunction plan is optional for equipment leaks, unless the equipment is equipped with a control device, in which case a startup, shutdown and malfunction plan is required. The startup, shutdown and malfunction plan would be used to determine acceptable operation and maintenance procedures only in cases where such a plan is required. Other clarifying language consists of more descriptive paragraph titles and introductory sentences clearly indicating which standards are addressed in each subsection.

The CAR's provisions on compliance are also organized differently from the HON. The CAR contains all compliance requirements together at the beginning of this section (§ 65.3), and moves the detailed requirements for performance tests and the startup, shutdown, and malfunction plan (which are included within the HON compliance section) to their own separate subsections. With this arrangement, provisions in the CAR are easy to locate by section and subsection headings.

In reviewing the operation and maintenance provisions for consolidation, EPA noted that the HON does not specify that monitoring must be conducted during startup, shutdown, and malfunction. Of course, if the monitor itself is malfunctioning, monitoring would not be required, assuming that any minimum data availability requirements are met. While the HON makes reference to monitoring data for periods of startup, shutdown, and malfunction in the provisions regarding excursions that occur during such periods, there are no explicit requirements that such monitoring take place. Therefore, in the CAR, EPA explicitly requires that monitors must be in operation except when they are malfunctioning or except to avoid damage caused by contemporaneous startup, shutdown, or malfunction with other equipment. The EPA's discussions with industry representatives indicate that there have been differing interpretations regarding monitoring during startup, shutdown, and malfunction, but that requirements to monitor during these periods would not substantially increase the monitoring burden. Without data from periods of startup, shutdown, and malfunction EPA can not determine the extent of an exceedance where normal operation has been misidentified as a startup, shutdown, or malfunction. Nor would EPA have the data to compare the effectiveness of techniques to minimize emissions during such episodes. As a result, monitoring data for periods of

startup, shutdown, and malfunction are considered essential and are explicitly required in the CAR.

The EPA has also clarified what provisions do not apply during startup, shutdown, and malfunction. The HON broadly states that the provisions of 40 CFR part 63, subparts F, G, and H do not apply during startup, shutdown, and malfunction. This has been clarified in the CAR to specify that it is the emission standards and established parameter ranges that do not apply during startup, shutdown, and malfunction. The EPA reasoned that this more specific reference more accurately reflects the intent of the rule.

Recordkeeping

The recordkeeping section of the CAR general provisions sets forth basic requirements related to duration of records retention, and availability and accessibility of records. Again, a primary benefit of these provisions is that they merge all the general recordkeeping and reporting provisions for all regulated sources into one place. While the requirements are substantially the same as those in the HON, burden reductions are achieved through simplification, clarification, and elimination of redundancy.

The CAR requirements for records retention are clearer than those in the referencing subparts in that they explicitly state record retention times for title V sources (5 years) and non-title V sources (2 years, unless a referencing subpart specifies otherwise.) While the 5-year retention time for title V sources applies for all records required under the Act, retention time for title V sources is not stated explicitly in the 40 CFR part 60 and 61 general provisions.

The provisions for where the retained records must be kept is one of very few instances in the CAR where the requirements are not consolidated. In this case, two different provisions are given: one that applies to sources that are subject to the HON and a second provision that applies to sources subject to the 40 CFR parts 60 and 61 referencing subparts. The provision that applies to HON sources is from the HON. It states that records must be retained on site for 6 months and must be accessible within 2 hours. For the remaining 4 and ½ years, the records may be retained offsite. The provision that applies to the 40 CFR parts 60 and 61 sources states that records must be retained on site for 2 years, but may be retained off site for the remaining 3 years. The HON provision resulted from the settlement agreement for the HON litigation. The EPA considers it important to retain this provision as revised under the litigation for HON sources. For this provision, EPA considers that it is not appropriate to expand the applicability beyond the HON. The EPA is concerned that allowing records to be stored offsite after 6 months will make it difficult for an inspector to determine compliance. Under the HON, EPA has allowed records to be taken off site after 6 months to determine how well this approach works and to assess whether any inspection issues arise. At this time, EPA does not have sufficient information to warrant expanding the scope of this provision. Therefore, a different provision is provided for non-HON referencing subparts.

Reporting

The reporting requirements in the CAR general provisions pertain to reports that are required for all or most complying sources. Notifications and reports that are specific to particular emission points are addressed in the subparts for each particular type of emission point. The general provision reporting requirements include a Notification of Initial Startup, an Initial Notification of Part 65 Applicability for non-title V sources, and an Initial Compliance Status Report.

Notification of Initial Startup is required within 15 days after initial startup for any regulated source that has implemented the CAR at initial startup. The notification under the CAR is similar to the initial notification in the referencing subparts.

Initial Notification of Part 65 Applicability is the only new separate report required in the CAR. It is required for non-title V sources and must include identification of each subject emission point and its applicable part 65 subpart, and a proposed implementation schedule. As an alternative to ''identifying each emission point,'' the process unit containing the emission points can be identified along with the kind of emission point in the process unit that will comply. Title V sources are not required to submit this notification since this information would be included in their title V permit application or modification request.

The Initial Compliance Status Report is required for all new regulated sources complying with the CAR and is due within 240 days after the applicable compliance date set in the referencing subpart, or 60 days after the initial performance test, whichever is earlier. The contents of the Initial Compliance Status Report pertain primarily to performance tests and are different for each type of emission point. The reporting requirements are therefore specified in the applicable subpart. Since sources may be required to conduct more than one performance test, the CAR allows the information on each performance test to be submitted separately, 60 days after each test is completed. The CAR allows more time to submit the performance test than the referencing subparts because the CAR will affect more emission points at a facility. The EPA deemed it appropriate to allow more time to complete all of the performance tests and reports.

The general provisions reporting requirements also specify the timing and frequency of periodic reports. Only semiannual periodic reports are required. The CAR has clarified and simplified when the periodic reports are due and what the reporting period is. The CAR allows more time (60 days after the end of each 6-month period) for periodic reports than the NSPS general provisions (30 days), because the combined report required by the CAR will be larger and will take more time to prepare. The CAR's periodic reports, like those in the HON, cover multiple emission points; the 60 day reporting date is taken from HON.

The CAR has greatly simplified the language regarding report submittal. The CAR's provisions on where to send reports are based on the HON, but reduce six paragraphs of text to one short paragraph. The HON requires that all reports be sent to EPA Regional Offices, and also to State agencies once authority has been delegated to the State. Since reports generally must now be sent to both offices under title V, the CAR simply requires that all reports be submitted to the relevant Regional Office and State agency. The CAR also includes a new provision allowing Regional Offices to waive reporting to EPA.

Another new provision in the CAR allows an owner or operator to submit semiannual reports on the same schedule as the title V periodic reports. Furthermore, if a semiannual report requires the same information as that submitted with a title V report, the semiannual report need only reference the title V report for the information. In addition, a source owner or operator can arrange with the Administrator a common schedule for reporting, and may, upon approval, adjust the postmark or time period deadline to coincide with state reporting schedules. This added flexibility for reporting schedules can reduce the number and frequency of report submittal for sources complying with the CAR.

Startup, Shutdown, and Malfunction

In general, owners and operators choosing to comply with the CAR, including non-HON sources, are required to develop and implement a written plan for operating and maintaining the source during periods of startup, shutdown, and malfunction. These provisions are based on the startup, shutdown, and malfunction requirements from the 40 CFR part 63 general provisions and the HON (§§ 63.151 and 63.152 of 40 CFR part 63, subpart G). Changes have been made to fit the CAR format, but the intent and purpose of the startup, shutdown, malfunction plan have been maintained as in part 63. As with the HON, this plan is optional for equipment complying with subpart F of the CAR (the equipment leak provisions), except that it is mandatory for equipment equipped with a control device. However, any control devices used for compliance with the equipment leaks provisions are subject to subpart G of the CAR, rather than subpart F, and therefore require a written plan for startup, shutdown and malfunction.

The general provisions for parts 60 and 61 do not require a startup, shutdown, and malfunction plan. However, the ultimate effect of the CAR plan is to reduce the reporting burden associated with startup, shutdown and malfunction. As long as a startup, shutdown, or malfunction is handled according to the plan, sources need only report that the event occurred. The report can be submitted as a semiannual notice, or it can be submitted as part of the periodic report. This procedure replaces the part 60 and 61 requirements to submit detailed reports for each startup, shutdown, and malfunction. Therefore, even though the plan must be maintained, the CAR potentially reduces the total number and complexity of the reports.

The CAR does not adopt the 40 CFR part 63 general provision requirement that the startup, shutdown, and malfunction plan be incorporated into the source's title V permit. In keeping with the memorandum ''Incorporation of Startup, Shutdown, Malfunction Plans into Sources' Title V Permits'' from the Director of OAQPS to Regional Air Directors (January 18, 1996), regarding incorporation of the startup, shutdown, and malfunction plan into title V permits, the CAR clarifies that the plan must be maintained on-site but not necessarily incorporated by reference into a title V permit. The permit must, however, include the enforceable requirement to have a plan and to maintain the plan on-site. Since the plan is required to be periodically updated, incorporation by reference would make a title V permit modification necessary for each revision to the plan and would, therefore, be counter-productive.

The CAR also contains revised provisions regarding reasons for finding a startup, shutdown, malfunction plan to be inadequate and requiring that it be revised. Plans are considered inadequate under the HON if they fail to provide for the operation of the regulated source during startup, shutdown, and malfunction to minimize emissions to at least the levels required by all relevant standards. However, EPA decided that emissions during startup, shutdown, and malfunction, while needing to be minimized in accordance with good air pollution control practice, can not always be minimized to the levels required by the standards. It is impractical, as well as contradictory with other provisions, to expect sources to continually meet applicable emission standards while experiencing a startup, shutdown, or malfunction. Plans under the CAR must only provide that emissions be minimized to the extent practical in a manner consistent with good air pollution control practices.

Although the provisions of 40 CFR 63.6(e)(1)(i) of subpart A are not included in the CAR, these provisions are likely to be required in future rulemakings. These provisions state:

> At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

The HON, as it was revised by 62 FR 2721, January 17, 1997 specifically overrides this provision of the part 63 general provisions. The CAR incorporates the HON provisions because it is the simplest approach that upholds the language negotiated in the HON litigation settlement, and EPA has applied it to part 60 and part 61 sources for simplicity and consistency. It should be noted that the HON, through the general provisions [40 CFR 63.6(e)(3)(vii)(B)], requires that the startup, shutdown, and malfunction plan include provisions specifying how an owner or operator will ''provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices * * *'' The CAR incorporates this provision. The HON also requires that during a startup, shutdown, and malfunction ''* * * the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the extent practical.'' This provision acts to replace the provisions of 40 CFR 63.6(e)(1)(i) of subpart A in the HON and the CAR. However, EPA believes that explicitly requiring operation consistent with good air pollution control practices at all times is not unreasonable and is likely to continue to be required in future rulemakings.

Certain provisions in the part 63 general provisions regarding immediate reporting of periods of startup, shutdown, and malfunction have not been included in the CAR. These provisions require an immediate report of any actions taken during a startup, shutdown, or malfunction that are not consistent with the startup, shutdown, or malfunction plan. The EPA determined that such reports appear to be inconsistent with provisions from subpart G of the HON requiring that such actions be reported in the periodic report rather than an immediate report. The CAR incorporates the provisions from the HON subpart G, since they require reports that are sufficient to ensure continuous compliance and are potentially less burdensome. The CAR also allows startup, shutdown, and malfunction reports, title V periodic reports, and CAR periodic reports to be submitted together.

A semi-annual summary report of the occurrences and durations of each startup, shutdown, and malfunction during which excess emissions occur is required by the CAR general provisions. The report is the companion to the records specified in §§ 65.162(a) and 65.163(c) of the CAR, which not only require records of occurrences and durations, but also provide for other records associated with startup, shutdown, and malfunction (such as a record that the procedures in the startup, shutdown, and malfunction plan were followed). The summary report is required if, during a semi-annual reporting period, (1) the total duration of periods of inoperation or malfunction of a CPMS is equal to or greater than 5 percent of the total operating time for the reporting period, or (2) the total duration of periods of startup, shutdown, and malfunction during which excess emissions occur for a regulated source are equal to or greater than 1 percent of that regulated source's operating time for the reporting period. This summary report is included in the startup, shutdown, and malfunction report, which can be included in the periodic report. The HON does not

specify that this information be submitted with the startup, shutdown, and malfunction report. The EPA considers this an important addition to the start-up, shutdown, and malfunction provisions, because it would highlight when a startup, shutdown, and malfunction condition exists for a significant amount of time, and would also indicate a condition that happens frequently during a semi-annual period. Nevertheless, this is a substantial burden reduction from the referencing NSPS, which require detailed reports on the causes of excess emissions and summary reports when the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period, and when CPMS downtime is less than 5 percent of the total operating time for the reporting period.

Waivers and Alternatives

The CAR consolidates the mechanism for requesting alternatives and waivers for monitoring, recordkeeping, and reporting. These provisions describe what is required of the applicant, and the procedures for approval or denial of the alternative or waiver. The CAR specifically allows alternatives for recordkeeping as well as monitoring, while the referencing subparts general provisions specify alternative monitoring methods only.

The CAR also includes procedures for requesting approval of an alternative means of emission limitation for design, equipment, work practice, or operational standards, as do specific subparts in part 60, the part 61 general provisions, and the HON. The CAR's language is based on language from the HON, subpart F, but the CAR clarifies that alternative means of emission limitation are not applicable to performance standards. Performance standards do not specify a means to limit emissions, so any means is already acceptable.

The CAR general provisions include consolidated administrative requirement sections on ''Availability of Information and Confidentiality,'' ''State Authority,'' ''Prohibited Activities and Circumvention,'' and ''Incorporation by Reference.'' The CAR includes minor wording changes and clarifications to the part 63 language; for example, in the prohibitions provisions, the prohibition on failing to report is eliminated and replaced throughout the CAR with the specific requirements to report.

C. Storage Vessel Provisions

The storage vessel provisions consolidate the requirements of 40 CFR part 60, subparts Ka (petroleum liquids storage) and Kb (volatile organic liquids storage), 40 CFR part 61, subpart Y (benzene storage), and 40 CFR part 63, subpart G (HON storage). The referencing subparts will direct storage vessels to subpart C of the CAR, which specifies the compliance options for storage vessels. Subpart C contains the control requirements for floating roofs only. Subpart C references subpart G for the control requirements for control devices (including flares) and routing to a process or fuel gas system. This split in requirements facilitates consolidation and reduces text. For example, the flare provisions do not have to be listed in multiple places in the CAR. This structure clarifies and simplifies the referencing subparts which may present the flare requirements on different bases, in different formats, and in multiple locations (including the individual general provisions).

There are several compliance options for storage vessels, but not all storage vessels qualify for all options. Owners and operators of storage vessels containing liquid with a low (less than 76.6 kilo-Pascal) maximum true vapor pressure have the option to comply by using an internal floating roof (IFR), external floating roof (EFR), or an EFR converted into an IFR. Storage vessels under the CAR equipped with floating roofs are only required to comply with the provisions in subpart C of the CAR. However, there are other control options available to all storage vessels, including: (1) routing emissions through a closed-vent system to a flare or control device, and (2) routing emissions to a process or fuel gas system. Those vessels equipped with a closed-vent system or that have emissions routed to a process or fuel gas system must also comply with subpart G of the CAR. For those vessels, subpart C specifies a 95 percent reduction control efficiency for control devices and it provides for 240 hours per year downtime for planned routine maintenance of flares or control devices. In addition, subpart C clarifies that the performance requirements for flares and control devices do not apply during planned routine maintenance or control system malfunctions.

An allowance for downtime for planned routine maintenance of control devices is contained in both 40 CFR part 61, subpart Y and the HON. The downtime allowance is included in the CAR in subpart C, while an associated record is required with the other control device records in subpart G. The 40 CFR part 60, subparts Ka and Kb do not include this allowance.

Subpart Y of 40 CFR part 61 and the HON storage vessel provisions provide downtime for planned routine maintenance for all storage vessel control devices. The HON allows 240 hours per year and subpart Y allows 72 hours per year. The EPA believes that for SOCMI storage vessels, it is acceptable to allow 240 hours per year downtime for routine maintenance for control devices, thus providing operational flexibility without creating a significant potential for environmental degradation. The EPA maintains that it may be appropriate for storage vessels associated with other industries to be allowed less downtime depending on the use and maintenance activities of the industry.

New CAR Structure and Other Significant Changes From the HON

This section identifies the rationale and benefit of the structure of the CAR storage vessel provisions. It also outlines the significant differences between the storage vessel provisions in the referencing subparts and those in the CAR. In some cases, the CAR clarifies the language adopted from the HON; in others, HON concepts have been extended to the other storage vessel rules. While the CAR incorporates the HON storage vessel provisions, the CAR provisions have been structured to better match procedures and operations at a plant. The CAR structure is a new approach to all of the referencing subparts. At a plant site, the personnel responsible for designing or re-designing storage vessels are not typically the same personnel responsible for operating the vessels. Likewise, different personnel are in charge of inspecting vessels, and they may not be the same personnel that repair the vessels. In addition, plant environmental staff may be in charge of keeping records and making reports although they have no other storage vessel responsibilities.

Based on industry suggestions, the provisions for IFRs and EFRs are organized into design, operation, inspection, repair, and recordkeeping and reporting requirements. This more closely reflects how plant personnel actually function in complying with the referencing subparts and the modular format is clearer for each audience. Storage vessel operators, for example, do not necessarily need to be familiar with the inspection requirements.

The CAR also clarifies the storage vessel requirements of the referencing subparts by specifying how floating roofs should be monitored. While the HON provisions, which form the basis of CAR provisions, require only annual inspection of floating roofs, industry representatives were concerned that the

requirement in each of the referencing subparts that IFRs and EFRs must float at all times implies that continuous monitoring is required; however, no explicit provisions are provided for demonstrating continuous compliance. The EPA does not consider continuous monitoring necessary to ensure that roofs remain floating at all times; EPA considers annual observation to be adequate. The CAR requires that roofs be inspected for floating status during an annual inspection and at any other time the roof is viewed. This clarification was deemed necessary to provide a practical means to ensure that IFRs and EFRs float at all times, and it provides a means of achieving the environmental protection intended by the referencing subparts in a manner that is potentially less burdensome to the industry.

Another clarification to the referencing subparts incorporated into the CAR is the operating requirement to empty a tank whenever the roof is resting on the leg supports. All the storage vessel referencing subparts state that when the roof rests on the leg supports, the process of filling, emptying, or refilling the vessel shall be continuous and accomplished as soon as possible. This has been interpreted to mean that the liquid level in a vessel can be dropped below the leg level only when the vessel is to be completely emptied. This can result in either: (1) an effective ''loss'' of available tank capacity if the owner or operator maintains the level at an adequate margin above the leg supports to prevent fluctuations without resting the roof on the legs, or (2) a requirement to completely empty the vessel if fluctuations lower the liquid level below the leg level. Emptying a vessel would increase the vapor space between the roof (as it rests on the leg supports) and the liquid level, thus increasing emissions. Emptying a vessel can also result in significant expense in maintaining extra tanks or barges to handle the emptied liquid.

The intent of the provision in the referencing subparts is to prevent the liquid level from rising and falling while the roof is resting on the supports. While the roof is on the supports, fluctuations in the liquid level generate emissions by increasing the vapor space between the roof and the liquid level as the liquid level falls, and then pushing these vapors out of the vessel as the level rises. Emissions are minimized if the vapor space is minimized. Not requiring emptying the tank if the liquid level falls below the roof supports would minimize the vapor space. Emissions are also minimized when the liquid level is raised during a continuous fill to a point where the roof is again floating, without an intervening drop in the liquid level. The CAR language is a revision of the language in the referencing subparts which requires only that once the roof is resting on the legs, the process of filling or refilling must be continuous and done as soon as practical. The CAR definition of ''empty'' or ''emptying'' is also clarified to specify that when the liquid level drops below the roof supports during normal operation, the event is not considered emptying. Therefore, none of the provisions that must occur upon emptying are triggered. (The note in the HON provisions to this effect is not needed with the clarifications in the CAR.)

Since resting the roof on its leg supports while the tank is in service is not a common occurrence, this revision is unlikely to significantly affect emissions, but the revision provides operational relief to the owner or operator when unforeseen inventory problems force the liquid level to drop below the leg supports. It should be noted that a new recordkeeping requirement has been created to document when this occurs [§ 65.47(e)]. However, the benefits of added operating flexibility and of the clarified language, which helps avoid interpretation conflicts, far outweigh the slight additional burden of creating a new record.

Another significant burden reduction for storage vessels concerns time extensions for repair and for seal gap measurements of unsafe vessels. Under several of the referencing subparts, a vessel is required to be repaired within 45 days if failures (as defined for storage vessel floating roofs) are found during the vessel inspection. If the vessel cannot be repaired within 45 days, a single extension of up to 30 days to empty the vessel and remove it from service may be requested from the Administrator. The provisions in the proposed CAR allow up to two extensions of up to 30 calendar days each without prior Administrator approval. The source operator is only required to document the basis for the extension and retain records of repairs and report them in the next periodic report. Extending the exemptions from the HON to all storage vessels complying with the CAR creates a consistent approach to compliance. Allowing extensions for repair creates operational flexibility without significantly affecting emissions.

The CAR also incorporates the HON's more flexible provisions for instances where performing seal gap measurement may be unsafe. The source operator is allowed up to two extensions of up to 30 days each to empty and remove a vessel from service once it is determined to be unsafe. The referencing subparts other than the HON do not include special provisions for instances where performing seal gap measurements would be unsafe. Allowing extensions for safety purposes incorporates that latest ''common sense'' approach to seal gap measurement procedures.

The concept of an EFR converted into an IFR is contained in the HON but is not included in the other storage vessel referencing subparts. No additional requirements are specified in the HON. Instead, it clarifies which EFR requirements and which IFR requirements apply to these storage vessels. The CAR incorporates this clarification by including a special section for converted storage vessels. The section points out which provisions should be followed, but does not otherwise contain additional requirements. This clarification incorporates the most current approach to control and better represents situations that can occur in the industry.

Other Changes From the Referencing Subparts

Several burden reducing changes were made to the recordkeeping and reporting provisions for storage vessels. The changes from the referencing subparts create a consolidated program that will increase clarity and compliance while reducing industry burden. These changes are discussed below.

The proposed CAR provides for 90 days as the time within which gap measurements would be required once a vessel that had been out of service for over 1 year is refilled. The HON and 40 CFR part 61, subpart Y also allow 90 days; however, 40 CFR part 60, subparts Ka and Kb specify 60 days. Therefore, the 90 day allowance would provide a burden reduction for part 60 storage vessels complying with the CAR.

The timing of reports for storage vessels has been standardized in subpart C of the CAR. For both the prior notice of gap measurements and notice of vessel filling or refilling, the CAR retains the same 30-day requirement included in each of the referencing subparts. However, the CAR requires results of defect inspections, seal gap measurement results, and seal gap exceedences to be reported in the periodic semiannual report, as they are in the HON. These reports in 40 CFR part 60, subparts Ka and Kb, and 40 CFR part 61, subpart Y are required either 30

or 60 days after the inspection, depending on the regulation. The CAR's consolidated submittals provide a reporting burden reduction for 40 CFR part 60, subparts Ka and Kb, and 40 CFR part 61, subpart Y sources.

Notifications for refilling a vessel that has been emptied and notifications prior to seal gap measurement of EFR's are required as in the HON. However, where these notifications are also sent to a State or local agency, a copy to EPA is not required. In reviewing the use of these notifications, EPA determined that the States and local agencies used the reports to observe refilling in cases where they are the delegated authority. The State or local agency may also waive these notifications.

The proposed CAR provisions require less information for seal gap measurement reports than the HON does. For example, for EFR seal gap measurements, sources would not be required to report raw data or calculations of each measurement, as specified in the HON provisions. Only the result of the gap measurement calculations that indicate noncompliance are required under the CAR; vessels with seal gap measurements that are in compliance need only be listed. Because the more detailed raw data would still be retained as an onsite record, EPA believes that reporting it would be unnecessary.

Records of inspections have also been streamlined in the proposed CAR. For example, 40 CFR part 60, subpart Kb requires sources to record the condition of each component inspected. The CAR requires only a record that the inspection has been performed on a specific vessel, the date of inspection, and a reference to the type of inspection performed. These records could consist of a simple checklist of subject storage vessels with dates entered for particular inspections performed. The proposed CAR requires a description of the condition of a component only if a problem is detected.

Additional Requirements Resulting From the Consolidated Program

This section details the provisions of the CAR that are based on the HON language and that introduce changes to the other referencing subparts. These changes, which may impose additional burden, primarily to subpart Ka tanks, as detailed below, should be considered in relation to all the positive advantages of consolidating the design requirements as well as those previously discussed for storage vessel complying with the CAR.

The requirements for storage vessels previously complying with 40 CFR part 60, subpart Ka are significantly different under the CAR. These differences primarily include design requirements for floating roofs and the allowance for a vapor mounted seal for an EFR. Modeled after the HON provisions, the CAR design specifications require a secondary seal above a vapor mounted seal for an IFR, and they do not allow vapor mounted seals for an EFR. Subpart Ka of 40 CFR part 60 allows vapor mounted seals for EFRs and does not specify types of seals for IFRs. In general, it is expected that storage vessels subject to 40 CFR part 60, subpart Ka will require upgrading in order to comply with the CAR's floating roof design requirements.

Other differences include the CAR's requirements for seal gap measurement and IFR inspection and repair procedures. Owners and operators with storage vessels subject to 40 CFR Part 60, subpart Ka are required to have ''no gaps'' in the secondary seal, but the rule does not provide any explicit procedures for determining compliance. The CAR's explicit procedures provide clarity. Likewise, the CAR's explicit requirements for repair procedures and time frames are now included for storage vessels previously complying with 40 CFR part 60, subpart Ka. Similarly, subpart Ka of 40 CFR part 60 does not specify any IFR inspection or repair provisions. The explicit CAR provisions, based on the HON, are new to sources subject to 40 CFR part 60, subpart Ka. Another design requirement that would be new to these storage vessels is the CAR provision requiring that covers on the roof be gasketed.

Design requirements for guide poles are found in the HON and are used in the CAR. The CAR requires gasketed caps on unslotted guide poles (except for antirotational devices equipped with a welded cap) and gasketed floats (or other devices) on slotted guide poles. Both of these requirements are new to 40 CFR part 60, subparts Ka and Kb and 40 CFR part 61, subpart Y.

D. Process Vent Provisions

The process vent provisions consolidate the process vent requirements of 40 CFR part 60, subparts III (air oxidation process vents), NNN (distillation vents), and RRR (reactor vents), and part 63, subpart G (HON process vents). The process vents subpart in the CAR, subpart D, provide significant opportunity for consolidation because the process vent referencing subparts are similar in their structure and requirements.

Subpart D of the CAR contains all the provisions for the performance standards; determining if control, monitoring, or neither is required; TRE index value determinations; process changes; and monitoring, reporting, and recordkeeping for vents that comply without the use of either a recovery or control device. Vents that comply by using recovery or control devices are also subject to subpart G of the CAR for further provisions regarding operation, monitoring, recordkeeping and reporting for control and recovery devices. This section discusses subpart D of the CAR; section V.G and H discuss subpart G of the CAR.

Language Clarification and Consolidation

This section presents the rationale and use of some of the terminology used in the process vents subpart of the CAR. It points out the initial confusion or repetitive language in the referencing subparts as well as the changes proposed in the CAR. The control requirements for vents are the same across all the referencing subparts and each also has provisions for using TRE index values for classifying vents into three categories, as follows: control required, no control required but monitoring required, or no control required and no monitoring required. While the performance standards for vents are the same in the referencing subparts, the language used to describe the three vent classifications is not. The 40 CFR part 60 rules use long text descriptions that cite TRE index value, concentration, and flow rate to describe each vent classification every time the language refers to a vent classification. The HON uses ''Group 1'' and ''Group 2'' to distinguish process vents where control is and is not required, but the HON also uses long descriptions whenever Group 2 is mentioned to describe if monitoring is required or not. These different approaches not only create confusion but also significantly expand the language.

The CAR expands on the HON terms that describe each vent classification by establishing nomenclature for each classification. Process vents where control is required are referred to as ''Group 1.'' Process vents where control is not required but monitoring is required are referred to as ''Group 2A.'' Process vents where neither control nor monitoring are required are referred to as ''Group 2B.'' This change allows for less overall text and makes the rule easier to read and understand, thereby resulting in better compliance and facilitating enforcement. The consistent terminology for these vents throughout the CAR also reduces confusion in recordkeeping and reporting and makes classification of specific vents easier.

The remainder of this section will refer to process vents by using the Group 1, Group 2A, and Group 2B terminology to indicate the vent classification specified by the CAR or by the referencing subparts.

Consolidation of Requirements

This section discusses which process vent provisions and approaches in the referencing subparts were consolidated to create the CAR process vent subparts. The significant changes, including discussions of the rationale and benefits of the changes, are highlighted below.

The consolidated requirements for process vent group determination is summarized in table 2. Several vent characteristics (TRE index value, flow rate, and concentration) are used in the referencing subparts to determine group status. However, variability exists across the referencing subparts in the values that are used for these characteristics. Where possible the CAR has consolidated these criteria to propose a rule that is consistent for all vents.

TABLE 2.—THE CAR PROCESS VENT GROUP DETERMINATIONS

Vent stream characteristic	Group assignment		
	1	2A	2B
Total resource effectiveness (TRE)	≤1.0	>1.0 to 4.0	>4.0.
	and	and	or
Flow rate	≥0.011 scmm	≥0.011 scmm	<0.011 scmm.
	and	and	or
Pollutant concentration[a]	≥300 ppmv TOC	≥300 ppmv TOC	<300 ppmv TOC.
	≥50 ppmv HAP	≥50 ppmv HAP	<50 ppmv HAP.
Control	Control required	No control; monitor required	No control and no monitoring.

[a] Process vents subject only to 40 CFR part 60 subpart III or 40 CFR part 63, subpart G are not eligible for the 300 ppmv TOC concentration cutoff. Process vents subject to 40 CFR part 63, subpart G are eligible for the 50 ppmv HAP concentration cutoff. Process vents subject to only the 40 CFR part 60, subparts are not eligible for the 50 ppmv HAP concentration cutoff.

Each of the process vent subparts being consolidated used a TRE index value to determine group status. The 40 CFR part 60 rules and the HON use similar parameters (for example, flow rate, heating value) but different coefficients in the equations, yielding different TRE index values. The CAR contains a single equation along with accompanying tables containing all the needed coefficients. The coefficients vary depending on process vent stream parameters and the referencing part (HON or NSPS). The single equation eliminates the need to duplicate in the CAR many pages of equations from the referencing subparts. While the new equation looks different from those in the referencing subparts, it yields the same TRE index values and, therefore, does not change any applicability determinations.

The different coefficients for the HON and the NSPS rules are necessary to avoid altering the stringency of the referencing subparts. The TRE index equations essentially are used to determine whether or not a particular vent stream is cost-effective to control (in terms of cost per unit of pollution reduced). The coefficients of the TRE equation vary because source category specific decisions were made pertaining to acceptable levels of cost-effectiveness in each rule. Consolidating to a single set of coefficients would change the TRE index value and, therefore, change the applicability criteria of the referencing subparts.

There are some minor differences among the referencing subparts in the provisions regarding the numerical levels for TRE index value, flow rate, and concentration that are used in determining group status (Group 1, Group 2A, or Group 2B).

Group 2A vents are required to monitor certain parameters to ensure that the TRE index value remains above 1.0 (a TRE index value of less than 1.0 indicates that control is required). Two of the referencing subparts, 40 CFR part 60, subparts NNN and RRR, specify a TRE index value criterion of 8.0, below which monitoring is required; these are Group 2A vents. The two other referencing subparts have a Group 2A TRE index value criterion of 4.0. Statistically, there is a chance that the actual TRE index value could fluctuate during normal operation to less than 1.0 if the calculated TRE is less than the Group 2A criterion. This is why monitoring is required for Group 2A process vents (i.e., to ensure that the TRE index value does not fall below the 1.0 criterion).

After reviewing the development history of these cutoffs for each rule, EPA determined that the probability of the TRE fluctuating from a value in the range of 4.0 to 8.0 to less than 1.0 is small compared to the probability of it fluctuating from a value in the range of 1.0 to 4.0 to less than 1.0. In the CAR, EPA proposes a TRE index value cutoff of 4.0 for consistency. Thus, vents with TRE index values greater than 4.0 (i.e., Group 2B) would not have to monitor. This consolidation would result in no impact on emissions because the vents in question were never subject to control requirements; they were only subject to monitoring requirements.

The low flow rate criterion for Group 2B status was similarly consolidated in the CAR. The cutoffs in the referencing subparts range from 0.005 standard cubic meters per minute (scmm) in the HON to 0.008 scmm in 40 CFR part 60, subpart NNN to 0.011 scmm in 40 CFR part 60, subpart RRR. Subpart III of 40 CFR part 60 does not contain a low flow rate criterion. The EPA proposes to use 0.011 scmm in the CAR. Based upon an analysis of EPA's process vent database, EPA concluded that the population of process vents with a flow rate between 0.005 and 0.011 scmm would be very small. This data analysis is documented in more detail in the following memorandum available in the Docket: ''Process Vent Applicability Criteria,'' from Greg DeAngelo, Eastern Research Group, to Rick Colyer, EPA, dated July 17, 1998. In the case of air oxidation vents (i.e., those subject to 40 CFR part 60, subpart III), EPA believes that no vents will have flow rates below 0.011 scmm because of the high flow rates in the vent streams from these unit operations.

The low concentration cutoff for Group 2B status also was consolidated. Based on an analysis of EPA process vent database, EPA considered it appropriate to extend the 300 ppmv TOC low concentration cutoff from 40 CFR part 60, subpart RRR to subpart NNN sources, but did not apply the cutoff to subpart III sources. Air oxidation process vents subject to 40 CFR part 60, subpart III can have low

concentrations but very high flow rates that could potentially result in significant mass emissions of regulated pollutant even at low concentrations. The 50 ppmv HAP concentration cutoff was retained for 40 CFR part 63, subpart G sources because the concentration cutoff is in terms of HAP and no direct, consistent relationship can be established between HAP and TOC emissions given the many different types of processes across the industry.

Another concept that was taken from the HON and used in the CAR is the procedures for monitoring a Group 2A process vent that meets the Group 2A criteria without the use of a recovery device. In other words, the process vent has the characteristics of a Group 2A process vent ''naturally,'' without the addition of a recovery device. In this case, because the standard monitoring parameters for recovery devices do not apply, the CAR specifies that the owner or operator should determine the appropriate parameters to monitor. Under this case-by-case determination, the proposed monitoring parameters, monitoring schedule, and recordkeeping and reporting procedures would be submitted to the Administrator for approval and then become the provisions for the process vent. This concept is a clarification to the part 60 rules, which do not address process vents that are Group 2A ''naturally.''

Engineering Assessment

The CAR allows the use of engineering assessment in lieu of testing to determine vent characteristics. Engineering assessment is allowed when determining vent stream flow rate and concentrations and TRE index value for verifying Group 2B status. Halogenated vent stream status can also be determined using engineering assessment. Compared to testing, engineering assessment is a less burdensome approach to determining vent stream characteristics. Allowing engineering assessment for verifying Group 2B status does not decrease environmental protection because any process vent with an estimated TRE index value between 1.0 and 4.0 must be tested and is potentially subject to control. Using engineering assessment for process vents with a TRE index value above 4.0 also allows facilities to focus attention on vents where control or monitoring is expected to be required.

Engineering judgement is allowed in the process vent referencing subparts of part 60 only for TRE index value determination after a process change is made, but it is not allowed for the initial determination of vent characteristics. Also, the specifications included in the CAR of what an engineering assessment entails, and the examples of engineering assessment, are not in the process vent NSPS.

The HON does not allow the use of engineering judgement for the initial determination of concentration and flow rate to verify Group 2B status. These vents would have to be tested to evaluate the concentration or flow rate. The CAR allows engineering assessment for the initial determination of low concentration and flow rate. The EPA has determined that engineering assessment is appropriate for these low concentration and/or low flow rate streams. This assessment is available for review by an inspector who can always request that a test be conducted if needed.

Other Burden Reductions

There are several other minor provisions based on HON provisions that are consolidated in the CAR for consistency, simplicity, or to provide burden reduction. They are discussed below.

As in all the referencing subparts, the CAR requires that the group status of the process vent must be evaluated whenever a process change is made. The part 60 rules list examples of process changes, and these lists are similar to the examples in the HON, except that the HON list includes changes in production rates as an example of a process change. The CAR includes production rate changes as examples of process changes.

Likewise, the CAR includes the HON provisions regarding where to locate the sampling site for purposes of determining the vent stream characteristics. The CAR approach essentially specifies that the sampling site should be located after the last recovery device but prior to the control device inlet (and prior to release to the atmosphere). In addition to this same requirement, the part 60 process vent referencing subparts also provide sampling site provisions for streams that are mixed prior to venting to a control device. In these provisions, calculations are required to back-calculate the effect of the control device on the individual streams that are mixed. The EPA determined that this back-calculation was not necessary, because a determination of the efficiency for the control device to reduce the mixed stream is a good indication of the efficiency to reduce emissions from individual streams. These 40 CFR part 60 provisions, therefore, were not adopted in the CAR.

The net heating value equation in the CAR specifies that the concentrations of the individual compounds are to be determined on a wet basis. All of the process vent referencing subparts and the general provisions of 40 CFR parts 60 and 63 contain a net heating value equation, but the equation is presented in several different forms across the rules with respect to whether or not the concentration component of the equation is on a wet or dry basis. Some equations specify wet basis, but some equations specify dry basis and include a correction for the water vapor content of the vent stream. With the exception of 40 CFR part 60, subpart III, all the equations are mathematically equivalent, so the results are the same. In subpart III, the equation is given in the wet basis form, but the provisions do not require that it be on a wet basis. Because industry input indicated that the wet basis form for the equation is more prevalent, the wet basis form is used in the CAR and the concentration is required to be on a wet basis. This is a possible change for 40 CFR part 60, subpart III since some owners or operators subject to subpart III may have been calculating net heating value using concentration on a dry basis in the equation meant for wet basis concentrations. These owners or operators would therefore need to recalculate the net heating value under the CAR.

A change has been proposed to subpart III, however, specifying that the concentration should be on a wet basis (62 FR 45369, August 27, 1997). Note that this **Federal Register** citation refers to changes in test methods; the actual text of the proposed amendment to subpart III is in the air docket at A–97–12 or on the web at http://www.epa.gov/ttn/emc. Once this change is final, subpart III and the CAR will be consistent on this issue.

The HON has a requirement to report which criteria (TRE index value, concentration, or flow rate) a process vent meets to qualify as a Group 2B vent and to report the test results (if any) accompanying the determination. Under the CAR, records of test information must be maintained, but no reports are required. The report is required only to identify which vents are Group 2B. It does not have to list which criteria each vent meets. This reporting requirement operates in conjunction with the CAR's approach to reporting process changes. If a process change is made that does not result in upgrading the group status (for example, Group 2B to Group 2A), then only a statement to that effect is required. This is a burden reduction because if a process vent that meets

Group 2B status for one criterion now meets Group 2B status for a different criterion following a process change, only a brief report would be required rather than test results, engineering assessments, or the like. All records of calculations after a process change are still required to be kept.

Halogenated Vent Streams

Some concerns may exist in the consolidated process vent rules for halogenated process vents subject to 40 CFR part 60, subparts III, NNN, or RRR but not subject to the HON. Two separate but related issues exist: (1) whether a vent stream is halogenated, and (2) how to control a halogenated vent stream.

The TRE index value is a function of whether the vent stream is halogenated or nonhalogenated. The CAR and all of the referencing subparts direct the owner or operator to use one set of coefficients to make the TRE index value calculation for a halogenated vent stream, while another set of coefficients must be used to make the TRE index value calculation for a nonhalogenated vent stream. The CAR provisions consolidate the definition of a halogenated vent stream using the HON definition. The definition specifies that when the mass emission rate of halogen atoms contained in the organic compounds is equal to or greater than 0.45 kilogram per hour, the process vent stream is considered halogenated.

This is potentially an important issue for process vents subject to one of the part 60 process vent referencing subparts, because those rules define halogenated streams differently. A stream is considered halogenated if it contains 20 ppmv or greater halogens (versus 0.45 kilograms per hour under the CAR). The consolidation of this definition in the CAR could result in a halogenated vent in the NSPS rules becoming a nonhalogenated vent in the CAR, or vice versa. With the different set of coefficients for calculating TRE index values for halogenated and nonhalogenated vent streams, this could change the TRE index value of a vent and, therefore, the group status. If a group status changes as a result of the CAR, a different control and/or monitoring requirement may be triggered.

The EPA believes this is an insignificant difference because only a small subset of vents might have different halogenated status under the CAR versus the NSPS process vent rules. Also, the majority of sources subject to the process vent NSPS are also subject to the HON. Therefore, this difference would have little effect on rule applicability.

The HON provisions for process vents also include additional control requirements for halogenated Group 1 process vents, while the other referencing subparts do not specify any additional control. The HON prohibits flaring of halogenated vents and specifies that a halogen reduction device must be used if the process vent is to be combusted. The proposed CAR includes the HON provisions regarding flares and halogen reduction devices for combusted halogenated Group 1 process vents. Based on industry input, EPA believes that halogenated vents are very rarely flared because the flare tip corrodes under these conditions.

These are substantial changes from the 40 CFR part 60 rules (especially the possibility of requiring the installation of a halogen reduction device such as a scrubber) that may prove to be an impediment to some sources that otherwise may wish to use the CAR. The EPA believes that the total population of process vents that contain halogens, are Group 1, and are subject to a 40 CFR part 60 rule, but that are not subject to the HON is small. The EPA specifically requests comment on this issue.

E. Transfer Rack Provisions

The transfer rack provisions consolidate the transfer rack requirements of 40 CFR part 61, subpart BB (benzene transfer operations), and 40 CFR part 63, subpart G (HON transfer racks). Transfer racks complying through the use of a control device are referred to subpart G of the CAR, thereby eliminating much of the regulatory text contained in the transfer sections of the referencing subparts.

The CAR transfer provisions are based on the transfer provisions of the HON. The only significant change relative to the HON provisions involves elimination of a recordkeeping requirement. The HON requires that records be kept of liquids transferred through each transfer rack. The EPA has determined that this record is not necessary for transfer racks complying with the CAR. The intent of the record in the HON was to determine if the liquids being transferred triggered the HON control requirements for the transfer rack. Since control is required for all transfer racks complying with the CAR, this record is not needed.

The primary benefit of using the CAR for transfer racks subject to 40 CFR part 61, subpart BB is to extend the same compliance options of the HON to non-major SOCMI sources subject to subpart BB.

The HON allows vapor balancing as an alternative to the installation of a control device. The process of vapor balancing consists of returning vapors expelled from the vehicle being loaded through vapor lines to the storage vessel being emptied. This option is not contained in 40 CFR part 61, subpart BB. Vapor balancing is an option under the HON because EPA determined that it reduces emissions by at least 98 percent and is therefore an acceptable alternative to a control device. Consequently, vapor balancing is included in the CAR to provide flexibility for non-major SOCMI sources subject to subpart BB.

In addition, the CAR clarifies the definitions of vapor balancing and closed-vent system. Vapor balancing systems are not subject to the closed-vent system equipment leak provisions. Previously, the referencing subparts used different approaches and terminology, creating confusion about whether or not an individual section of the transfer rack was part of the process or part of the closed-vent system. The consolidated definitions clarify the issue. See the discussion of the definitions in section VI.B of this preamble for more information.

''Vapor collection system'' is the term used in the referencing subparts to describe the equipment that collects and transports transfer rack emissions. Throughout the CAR, uniform language is adopted that refers to this type of equipment as ''closed-vent systems.'' This standardization, along with the revised definitions, further clarifies which sections of the transfer rack are included in the closed-vent system and which are process piping.

The HON also introduces two other compliance alternatives that can be used for transfer racks, neither of which are included in 40 CFR part 61, subpart BB. Emissions from transfer racks can be routed either to a process or to a fuel gas system. These options are consistent with EPA's current approach to emissions control and provide operational flexibility while maintaining environmental protection. During the development of the HON, EPA determined that both of these alternatives reduce emissions by at least 98 percent and are therefore acceptable alternatives to a control device. Therefore, these two options are included in the CAR's provisions for transfer racks.

The CAR allows two alternatives for demonstrating leak tightness for tank trucks and rail cars. Source operators may rely on either a Department of Transportation tank certification for tank trucks and railcars, or Method 27

test results and documentation. The HON allows both of these alternatives, recognizing that either is an acceptable means of demonstrating leak tightness of tank trucks and railcars. However, because it was drafted prior to the DOT certification program, 40 CFR part 61, subpart BB does not make this choice available for transfer racks and specifies only Method 27. Allowing this alternative in the CAR provisions provides a potential for burden reduction because owners and operators of tank trucks and railcars are already required to keep the DOT certifications under DOT regulations. Under the CAR they do not have to perform Method 27 in addition to keeping the DOT certification. This alternative provides for a significant reduction in recordkeeping burden in 40 CFR part 61, because subpart BB required several ancillary records related to Method 27 to be kept by the owner or operator of the transfer rack. These records are not necessary in conjunction with the much simpler records needed for the DOT certifications.

The HON also allows an owner or operator to use a control device to reduce the organic concentration of transfer rack emissions to 20 ppmv, (on a dry basis, corrected to 3 percent oxygen) as an alternative to reducing emissions by 98 percent. However, 40 CFR part 61, subpart BB does not provide this alternative, so the CAR includes this option as a means of flexibility for transfer rack compliance.

Achieving a 98 percent reduction of a vent stream that initially has a very low concentration can be infeasible or unreasonably costly. Allowing a 20 ppmv concentration in addition to a 98 percent reduction provides operational flexibility without compromising environmental protection. This is an example of extending the more up-to-date procedures of the HON to sources subject to 40 CFR part 61, subpart BB.

The CAR adopts the control requirements of the HON for halogenated transfer rack vent streams. These requirements are similar to those discussed in section VI.D of this preamble for halogenated process vents. These are new requirements for transfer racks subject to 40 CFR part 61, subpart BB. The EPA does not expect the new requirement to affect many vent streams because few transfer racks that are subject to 40 CFR part 61, subpart BB will contain halogens in sufficient quantity to be considered halogenated by the CAR.

F. Equipment Leak Provisions

The proposed CAR's equipment leaks provisions consolidate the equipment leaks requirements of 40 CFR part 60, subpart VV (SOCMI equipment leaks), 40 CFR part 61, subpart V (the generic equipment leak requirements for 40 CFR part 61, subparts F [vinyl chloride] and J [benzene]), and part 63, subpart H (HON equipment leaks).

Applicability of the CAR's equipment leak requirements is determined by applicability provisions in the referencing subparts. These provisions specify the components that would be subject to the CAR. The provisions of the CAR apply only to those components that are subject to the referencing subparts and are specifically referred to the CAR. The CAR does not alter the applicability of the referencing subpart. For example, the equipment leak provisions of subpart VV of 40 CFR Part 60 state that subject equipment includes all pumps, valves, compressors, pressure relief devices, sampling connection systems, open-ended lines, and connectors that contain or contact a process fluid that is at least 10 percent VOC by weight. When the CAR is applied, only those same components would be subject to the provisions in the CAR. Thus, even though the CAR contains provisions for agitators, the agitator provisions would not apply to a source subject only to 40 CFR part 60, subpart VV, because agitators are not covered by 40 CFR part 60, subpart VV.

This section of the preamble discusses the CAR provisions for alternative monitoring for valves, connector monitoring, the overall improvements to the structure of the equipment leaks provisions in the CAR, provisions from the HON that were clarified or improved through incorporation into the CAR, and significant changes between the provisions of 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V and those contained in the CAR.

Alternative Monitoring Program for Valves

The most significant difference between the equipment leaks provisions in the CAR and those in the referencing subparts is the CAR's innovative approach for monitoring valves for leaks. The CAR alternative monitoring program can significantly reduce the amount of burden associated with monitoring valves for leaks without increasing the emissions of regulated pollutants to the environment. The valve monitoring program is discussed below.

The premise for the CAR alternative monitoring program is that industry data and experience have shown that, at some facilities, some valve populations tend to leak more frequently than others. The referencing subparts require valve monitoring on a process unit basis, such that a certain number of valves that tend to leak frequently may continually force all of the valves in the process unit to be monitored frequently. Separate process units can qualify for less frequent monitoring if the percent leaking valves in the process unit falls to a small enough number. The CAR alternative monitoring program extends this concept by allowing subgrouping, within or across process units, to determine the valves that must be monitored. Each subgroup correlates to a specific monitoring frequency based on the percent leaking in that subgroup.

Under the CAR alternative, the owner or operator can place valves that are expected to leak more frequently into one subgroup. Because these valves leak more frequently they would be monitored more frequently. Then, the valves in the other subgroups can qualify for less frequent monitoring because the valves that leak more frequently will not be included in their percent leaking calculations. This is conceptually the same as the current programs which allow different monitoring frequencies for different process units, in that the performance of a given process unit does not disqualify another process unit from less frequent monitoring. The primary difference in the CAR alternative monitoring program is that subgrouping can be based on site-specific factors other than process unit boundaries.

The main benefit of the CAR alternative monitoring program is to allow facilities to focus on valves that tend to leak, while relieving the burden of monitoring valves that tend not to leak and achieving essentially the same level of environmental protection provided by the referencing subparts. The cost of monitoring, which is a significant burden to the industry, is thereby reduced without creating a greater potential for negative environmental impact.

Several safeguards have been built into the CAR alternative monitoring program to ensure that the level of environmental protection does not deteriorate. First, to initially qualify for the CAR alternative monitoring program, the overall performance of all valves in the alternative monitoring program must be less than 2 percent leakers. Also, if the overall performance of the valves in the alternative monitoring program fails to meet the program's required 2 percent leak rate, as determined through semi-annual performance checks, the entire population of valves in the alternative monitoring program would revert to the

original valve monitoring program. As a result, each process unit would revert to the monitoring frequency dictated by the percent leaking valves observed. This may also introduce monthly monitoring for many valves. The EPA considers this possibility a significant incentive for owners or operators to maintain good performance at plant sites employing the subgrouping program.

In addition, valves with less than one year of monitoring data (or valves not monitored within the last 12 months) must initially be placed into the most frequently monitored subgroup. Provisions to restrict switching valves between subgroups are included to prevent circumvention. These provisions, discussed below, ensure that valves cannot be moved back and forth between subgroups to hide or diminish the impact of leaking valves on the percent leaking valves calculations.

Under the proposed alternative, a valve can be moved into a less frequently monitored subgroup only when data have been collected that demonstrate that the valve has not leaked during the entire monitoring period of the subgroup to which it is moving (for example, no leaks for the past 12 months before moving a valve into an annually monitored subgroup). Therefore, valves with a demonstrated lower incidence of leaks can migrate into the longer monitoring period subgroups. Because even a few leaking valves in a subgroup can disqualify the subgroup for the longer monitoring periods, it is anticipated that owners and operators will be very cautious when considering whether or not to move suspect valves into the longer monitoring period subgroup.

To move a valve into a more frequently monitored subgroup, the valve must have been monitored during the most recent monitoring period for the group it is moving from, and it must have had its monitoring results included with the group from which it is moving. The intent of this safeguard is to prevent leaking valves from being shuttled out of a subgroup to protect that subgroup from triggering a more frequent monitoring period.

The placement and subsequent reassignment of valves into subgroups is a decision that will be made on a case-by-case basis by the owners and operators. The alternative program takes advantage of the knowledge of the process that the owner or operator possesses. At a given facility, for example, valves operating under certain temperatures or valves located adjacent to certain pieces of equipment may be more likely to leak. No single set of criteria can be applied to the entire industry, as the characteristics of valves that are more likely to leak at one facility may not be the same at another facility.

Some additional records and items to include in the periodic reports are necessary for this program to ensure compliance. These records and reporting items consist essentially of recording which valves are initially assigned to each subgroup, which valves have subsequently been reassigned, and the results of the semiannual performance checks. The burden associated with retaining these records and making these reports is far outweighed by the savings in reduced monitoring.

The other aspect of the valve program is the ability to earn longer monitoring periods with good performance. The HON currently allows a series of extended monitoring periods based on improved performance, culminating with an annual monitoring period for process units with less than 0.5 percent leaking valves. The CAR equipment leaks subpart introduces an additional 2-year monitoring period for process units with less than 0.25 percent leaking valves. This extended monitoring period would be available to valves whether or not the owner or operator chooses to use the alternative subgrouping program for compliance. Since 0.25 percent of a typical valve population (either a process unit under the base monitoring program or a subgroup under the CAR alternative monitoring program) is a very small number of leaking valves, EPA considers this change a logical extension of the original monitoring periods specified in the HON. Furthermore, it has the potential to substantially reduce monitoring costs without increasing long-term emissions to the environment.

Revised Monitoring Program for Connectors

Another major difference between the CAR and the referencing subparts is the approach taken to control equipment leak emissions from connectors. The HON is the only referencing subpart with connector monitoring provisions, but the CAR's approach to connector monitoring requires much less frequent monitoring for SCUs with good performance histories.

For connectors, as for valves, the monitoring periods have been extended. The HON is the only referencing subpart that specifies periodic monitoring for connectors, and it contains provisions for extending the monitoring period to once every 4 years if the percentage of leaking connectors is less than 0.5 percent. The CAR extends the HON concept to an 8-year monitoring period for process units with less than 0.25 percent leaking connectors, while introducing connector monitoring to sources previously complying with the sensory monitoring requirements of 40 CFR part 61, subpart V and 40 CFR part 60, subpart VV. This approach for connectors applies on an SCU basis; subgrouping similar to the alternative valve monitoring program is not allowed.

The EPA believes that the extended 8-year monitoring period is warranted for connectors which can achieve and maintain a leak rate of less than 0.25 percent. The lower threshold will forbid any poorly performing connectors from qualifying. In addition, connectors are static pieces of equipment without any moving parts. They are much less likely to leak than dynamic pieces of equipment like pumps and valves.

As a safeguard built into the provisions allowing an 8-year monitoring frequency, the CAR requires at least half of the connectors to be monitored within the first 4 years. The process unit must have less than 0.35 percent leaking connectors to remain in the 8-year program; failing the percent leak criteria means the owner or operator must monitor the rest of the values within the next 6 months. The result of this monitoring will then determine the new monitoring period. The 0.35 percent criterion was selected so that, if 0.35 percent (or more) of the first half of the connectors leak, the overall connector population will be monitored, and the overall results will be used to determine the monitoring frequency.

The changes for valves and connectors introduce concepts designed not only to significantly reduce the burden of complying with equipment leak inspections but also to maintain environmental protection. The EPA believes that the safeguards incorporated into the new programs for valves and connectors are sufficient to meet both of these goals.

CAR Structure

Some of the improvement to the CAR subpart F entails restructuring with the intent to isolate and emphasize the different provisions in a manner more consistent with typical plant operation. For example, monitoring for leaks and leak repair are presented separately because the personnel at a plant site responsible for these two activities are not necessarily the same. In addition to creating a ''user-friendly'' format, the other goal of restructuring is to avoid repetition of requirements. Equipment

identification provisions, for example, are presented once rather than duplicated for each equipment type discussed.

In general, the equipment leaks subpart of the CAR is structured in the following manner. Provisions common to all equipment types (such as equipment identification, monitoring for leaks, and leak repair) are consolidated and presented once, at the beginning of the subpart. Following these provisions are component-by-component standards (for example, for valves and for pumps). After the standards sections, the subpart contains alternatives for batch units and for enclosed process units as well as recordkeeping and reporting requirements for all equipment.

The general benefit of this structure is that plant personnel need to be familiar with only the portions of the subpart that affect them. Personnel responsible only for component repair, for example, can refer to two or three sections in the subpart and do not have to read all of the sections. A discussion of some of the more specific benefits of structure improvements follows.

Two sections have been created through restructuring: ''Instrument and Sensory Monitoring for Leaks'' and ''Leak Repair.'' This restructuring is intended to more closely relate the structure of the equipment leaks subpart to the way plants are configured and operated. The referencing subparts contain the leak detection and repair provisions for each type of component within the section for that component. EPA believes that significant consolidation and simplification can be achieved by combining the leak detection and leak repair provisions into one set of provisions, since they are very similar or identical for the different types of components. Instrument leak detection procedures are the same across the components, including the method used, calibration, monitoring procedure, and leak identification.

The same is true for leak repair procedures. All of the referencing subparts include provisions for repair within 15 days (first attempt within 5 days), removal of leak identification, delay of repair, and recordkeeping. Many of the CAR's recordkeeping provisions are contained in the new leak detection and repair sections because the personnel detecting and repairing the leaks are generally the same ones who create and maintain the records. Only leak detection and repair specific to individual components or situations are retained in the individual sections addressing those components.

An additional restructuring was achieved by creating a parallel construction for the equipment component sections which have similar types of provisions. The standards for valves, pumps, connectors, agitators, pressure relief devices in liquid service, and instrumentation systems are broken into parallel paragraphs addressing compliance schedule, leak detection, percent leaking component calculations, and leak repair, where these provisions are applicable. Any special provisions for that component follow the standardized paragraphs. A consistent structure for these sections enables the owner or operator to more easily understand the requirements for each component and facilitate the owner or operator's compliance activities.

For consistency and clarity, all owners or operators controlling equipment leak emissions with closed-vent systems and control devices or by routing to a process or to a fuel gas system are also subject to subpart G of the CAR. Subpart F of the CAR specifies 95 percent or greater control efficiency for control devices before referring all three of these compliance options to subpart G. Subpart G then provides the consistent, consolidated procedures for the control device or routing emissions to a process or fuel gas system.

Clarifications and Improvements From the HON

In addition to consolidating primarily on the HON requirements, the CAR makes some significant clarifications, changes, and improvements to the HON provisions. These issues, some of which also constitute changes for sources referenced from the other two equipment leaks referencing subparts, are discussed in more detail below. This section discusses changes to provisions taken from the HON. In cases where the HON and the non-HON requirements are substantially identical, the discussion in this section is equally applicable to all three referencing subparts. When the discussion applies to all three equipment leak referencing subparts instead of only the HON, the discussion is specially noted.

Identification of subject equipment has been simplified for all sources complying with the CAR. It is not necessary to individually identify each piece of equipment, as long as equipment subject to the CAR can be distinguished from other equipment through means of a plant site plan, log entries, process unit boundaries, or another method. This does not preclude the use of individual equipment identification, but it does offer flexibility and the opportunity for burden reduction as a source does not have to track a complex numbering scheme for compliance. For example, the CAR simplifies identification of connectors by allowing them to be identified by grouping or area. Closed-vent systems and control devices, pressure relief devices, and instrumentation systems must be identified, but the CAR provisions do not specify particular formats. The referencing subparts, on the other hand, require lists of identification numbers for individual pieces of equipment; the CAR is more flexible and thus reduces the recordkeeping burden. Such flexibility, however, does not relieve an owner or operator's responsibility for the ability to locate components at the plant site.

Regarding unsafe-to-monitor or difficult-to-monitor equipment, the HON requires owners or operators to develop a written plan for monitoring the equipment, but does not explicitly require the monitoring. The CAR clarifies that monitoring of the equipment is required according to the written plan that is developed.

The CAR clarifies that compressors designated as operating with an instrument reading less than 500 ppm, as well as pressure relief devices, are subject to a performance standard as opposed to a work practice standard with respect to instrument monitoring. Thus, if a compressor is monitored using Method 21 and an instrument reading of 500 ppm or greater is detected, it is a violation of the standard. If a pressure relief device is monitored 5 days after a pressure release and an instrument reading of 500 ppm or greater is detected, it is also a violation of the standard. These are clarifications, not changes, from the HON.

The CAR maintains the HON provisions with respect to the monitoring instrument specifications and calibration procedure. However, the CAR includes provisions for adjusting instrument readings for instruments that cannot meet the Method 21 performance criteria. The CAR also allows calibration with gases other than methane or n-hexane where the instrument does not respond to either of these compounds.

Provisions in all three referencing subparts require monitoring only when equipment is in regulated material service, in service of an acceptable surrogate VOC, or in service of any other detectable material. The CAR does not include the ''acceptable surrogate VOC'' phrase because it is redundant and confusing in relation to ''any other detectable material.''

As discussed earlier in this section, the HON and the CAR allow owners or operators to monitor valves and

connectors less frequently when the percentage of leaking components is low. Monitoring data collected prior to implementation of a referencing subpart can be used to qualify initially for less frequent monitoring, even if the data were obtained with minor departures from the CAR's monitoring procedures and methods. The CAR further clarifies the original HON language by indicating that (1) earlier data may be used only for initial qualification, and (2) this provision includes initially qualifying for annual monitoring. The original HON language was unclear whether older data could be used all the time, and whether old data could be used to qualify initially for annual monitoring. Both CAR clarifications are consistent with EPA's determination of the original HON intent.

The CAR clarifies language dealing with repair of leaks. Leaks must be repaired within 15 days of detection, unless the leak qualifies for delay of repair. Provisions in all three referencing subparts allow for delay of repair ''* * * if the repair is technically infeasible without a process unit shutdown.'' This language potentially discourages any attempts at repair between the 15th day after detection and the next process unit shutdown, since a successful repair within that period would then disqualify one from the original delay of repair. Some equipment leaks legitimately qualify for delay of repair, yet they can be repaired after the 15-day repair deadline and before the next process unit shutdown. These repairs can be effected by continued repeat attempts over time until the leak is repaired. In order to eliminate the potential disincentive to attempt repair of leaks after the fifteenth day, the CAR revises the wording of this provision to state that delay of repair is allowed if repair ''within 15 days after a leak is detected'' is technically infeasible without a process shutdown.

The CAR adds some flexibility for calculation of percent leaking valves by allowing the calculation for either a single process unit or a group of process units. Owners or operators must commit to one of these approaches by their CAR implementation date, and perform all subsequent percent leaking calculations on the same basis. The basis may be changed through revision of the operating permit or other appropriate notification.

The CAR also simplifies the calculation procedure by not incorporating a partial credit for removed valves. Industry representatives indicated that this credit was little used and overly complicated the equation. The simplified equation, along with the reduction in burden associated with the alternative monitoring programs and the extended monitoring periods, outweighs any negative aspects of not including the complex procedures necessary to use the credit for removed valves.

Another complicated procedure from the HON was not incorporated into the CAR. In order to provide a credit for removed and allowed nonrepairable connectors, the HON contains multiple equations for determining the percent leaking connectors and contains complicated recordkeeping and testing provisions. Based on industry comment that these credits complicated the procedures, added recordkeeping burden, and were seldom used, the EPA decided not to include them in the CAR.

The CAR does not incorporate the valve quality improvement program (QIP) found in the HON. The goals of the QIP and of the CAR's subgrouping procedures are the same—to focus attention and effort on poorly performing valves. Owners and operators are expected to be able to subgroup their valves such that valves with continuing problems will be re-assigned into a single subgroup (which will likely be subject to quarterly or monthly monitoring). The additional focus and financial incentives for improvement inherent in the CAR make the QIP for valves unnecessary.

The pump section has also been improved and clarified. The CAR clarifies that documentation of weekly visual checks need only include a record that the check was conducted; pump-by-pump documentation is not required. The CAR also clarifies what constitutes leak repair when indications of liquid dripping are observed during the visual inspection. ''Repaired'' in this situation means that the indications of liquid dripping have been eliminated. In addition, an owner or operator may show that the liquids dripping are not process fluid (for example, the liquids dripping are condensate).

The CAR replaces the term ''agitator'' with ''agitator seal'' to more accurately convey the intent of the requirement. The agitator itself is not subject to leaking; rather, the agitator seal is subject to leaking.

The CAR incorporates the HON's alternative provisions for batch processes and modifies these provisions to allow additional flexibility regarding the required use of pressure measurement devices. The HON requires a device with a precision of ±2.5 millimeters of mercury in the range of the test pressure and the capability to measure pressures as high as the relief set pressure of the pressure relief device. Under the CAR, when such a device is not reasonably available, owners and operators may use an alternative pressure measurement device if the duration of the test is extended as specified.

Significant Changes From the Non-HON Equipment Leak Referencing Subparts

This section summarizes the significant differences between the equipment leak provisions of 40 CFR part 61, subpart V and 40 CFR part 60, subpart VV and those of the CAR. Some of the changes that are also clarifications and improvements from the HON are discussed in the preceding section.

The CAR's equipment leaks provisions do not apply to equipment in vacuum service. While 40 CFR part 61, subpart V and 40 CFR part 60, subpart VV require a record of equipment in vacuum service, the CAR follows the approach in the HON and does not specify this record. Also, the CAR exempts equipment that is intended to be in regulated material service less than 300 hours per calendar year, as the HON does. Although there is an identification record associated with this exemption, having the exemption is a net burden reduction for 40 CFR part 61, subpart V and 40 CFR part 60, subpart VV sources complying with the CAR.

The CAR also incorporates the HON clarification that equipment not containing process fluids is not subject to the equipment leak provisions. When 40 CFR part 61, subpart V and 40 CFR part 60, subpart VV were drafted, rules typically did not explicitly state what did not apply. These non-HON equipment leak referencing subparts are intended to apply only to equipment containing process fluids; the rules do not, however, explicitly exempt equipment that does not contain process fluids. Since the drafting of these rules, the EPA's philosophy has shifted and this explicit clarification from the HON has been used in the CAR.

Provisions regarding alternative means of emission limitation were consolidated into one set of requirements. The CAR requires public notice in the **Federal Register** if the Administrator approves an alternative means of emission limitation. This public notice is not specifically required in 40 CFR part 61, subpart V, but public notice is required by section 112 of the Act.

Sources subject to the non-HON equipment leak referencing subparts would benefit from the general identification requirements of the CAR, which allow whatever identification scheme makes the most sense at a given

facility. However, the CAR introduces some new component-specific identification provisions for these sources, such as special identifications for pressure relief devices or instrumentation systems. The CAR language provides a net burden decrease associated with equipment identification.

Although 40 CFR part 61, subpart V and 40 CFR part 60, subpart VV include procedures that are considered to comprise first attempt at repair for leaking valves, these subparts do not contain parallel procedures for first attempt at repair for leaking pumps. HON language is used in the CAR to clarify what is meant by first attempt at repair for pumps.

An additional burden reduction and clarification is achieved by incorporating the HON definition of ''repair'' with the leak repair requirements. Both 40 CFR part 61, subpart V and 40 CFR part 60, subpart VV require valve monitoring for two successive months before the leaking valve identification can be removed. The CAR follows the HON language and allows the removal of the identification after the valve is ''repaired,'' which by definition includes follow-up monitoring.

The CAR also adopts the HON provisions for records of delay of repair, allowing owners and operators to develop written procedures for delay of repair and to simply cite relevant sections of their written procedures as the record of reason for delay. In addition, the CAR includes the HON's exemption for unsafe-to-repair connectors.

Provisions contained in the CAR for connectors are taken from the HON. These include periodic instrument monitoring with a leak definition of 500 ppm; less frequent monitoring for good performance; special provisions for difficult-to-monitor or unsafe-to-monitor connectors; and exemptions from monitoring, recordkeeping, and reporting requirements for inaccessible, ceramic, or ceramic-lined connectors.

For sampling connection systems, the CAR contains flexible language from the HON allowing purged process fluid to be collected, stored, and transported to one of several systems or facilities. One option from the HON [transporting the purged process fluid to a National Pollutant Discharge Elimination System (NPDES) Group 1 wastewater stream or to an NPDES-permitted facility] is allowed in the CAR for HON sources only. As explained in more detail in section XI, sources subject to 40 CFR part 61, subpart V cannot be eligible for this option because the option requires an absence in the stream of particular organic HAP listed on table 9 of 40 CFR part 63, subpart G; however, any source subject to 40 CFR part 61, subpart V will contain benzene or vinyl chloride, two of the compounds listed in table 9. This option is not allowed for sources subject to 40 CFR part 60, subpart VV because purged materials for these sources may contain VOC species which are not HAP, and thus, were not evaluated along with the organic HAP species when the option was developed for the HON.

G. Closed-Vent Systems, Control Devices, and Routing to a Fuel Gas System or a Process

Subpart G of the CAR addresses the closed-vent system control devices, and routing vent streams to fuel gas systems or process equipment. Subpart G consolidates requirements from all of the storage vessel, process vent, transfer rack, and equipment leak referencing subparts (including the general provisions and continuous process vent provisions from 40 CFR part 60, subpart DDD).

Subpart D of the CAR does not consolidate the process vent provisions of 40 CFR part 60, subpart DDD with those of 40 CFR part 60, subparts III, NNN, RRR and the HON because these subparts differ in terms of the applicability criteria for control. Subpart DDD of 40 CFR part 60 differs from the NSPS and the HON in that it does not use TRE index value, flow, or concentration to determine if control is required for the vent. Also, subpart DDD does not have provisions included in the NSPS and the HON requiring monitoring for vents that are not required to be controlled. The control requirements for subpart DDD process vents, however, are essentially identical to those in 40 CFR part 60, subparts III, NNN, RRR, and the HON and were able to be consolidated in subpart G of the CAR.

The EPA has significantly restructured these provisions from all of the referencing subparts. Table 3 summarizes the sections of subpart G of the CAR. After short applicability, definition, and standards sections (§§ 65.140 to 65.142), subpart G is organized as follows: §§ 65.143 to 65.156 addresses the requirements for equipment, operating, performance tests (or compliance determinations for flares) and monitoring for closed-vent systems, for routing to a fuel gas system or process, and for each type of recovery or control device specified in the referencing subparts (for example, flares, incinerators, absorber); §§ 65.157 to 65.158 addresses performance test and flare compliance determination requirements and procedures; and §§ 65.159 to 65.165 addresses data handling, CPMS, recordkeeping, and reporting requirements for closed-vent systems, recovery and control devices, and routing to a fuel gas system or process.

TABLE 3.—STRUCTURE OF 40 CFR PART 65, SUBPART G

Section	Content
65.140	Applicability.
65.141	Definitions
65.142	Standards (roadmap to subpart G).
65.143	Closed-vent systems requirements.
65.144	Routing to fuel gas systems and processes.
65.145– 65.155	Control and recovery devices requirements
65.156	General monitoring requirements
65.157– 65.158	Performance test and flare compliance determination requirements and procedures.
65.159– 65.163	Data handling and recordkeeping.
65.164– 65.166	Notifications and reports.

The standard section, § 65.142 of subpart G of the CAR, acts as a roadmap to subpart G. All of the CAR subparts reference a specific paragraph of § 65.142. These paragraphs outline the specific sections of subpart G that apply to a given situation.

In addition to the overall restructuring, the individual device sections (§§ 65.145—65.155) are organized in the same general manner: sections begin with a discussion of equipment and operating requirements, are followed by paragraphs discussing flare compliance determinations or performance test requirements, and conclude with paragraphs discussing monitoring requirements. This makes it easier to find specific information on the device of interest.

A number of decisions were made by EPA in the consolidation of these provisions. These decisions are discussed below in subsections that are in the order that they appear in subpart G of the CAR. Decisions made in the consolidation of subpart G provisions on monitoring, recordkeeping, and reporting provisions associated with closed-vent systems, control and recovery devices, and routing to a fuel gas system of a process are discussed in section VI.H.

Closed-Vent Systems

The language in the HON provides the basis for language in subpart G. The primary change to the HON closed-vent

system language is the restructuring to meet the format used elsewhere in the CAR. That is, in this case, to separate the provisions into equipment and operating requirements (including by-pass monitoring), inspection requirements, inspection procedures, and leak repair provisions. Specific clarifications to the HON language are discussed below.

Clarifying improvements were made to the consolidated closed-vent system inspection procedures. For example, the HON requires that the calibration gas be no more than 2000 ppm higher than the leak definition. This requirement in the HON is given in a generic section, to apply to various leak definitions. Since the leak definition for closed-vent systems is 500 ppmv, the CAR specifies a calibration gas concentration limit of 2500 ppm for multiscale instruments for closed-vent systems. In addition, the HON requires that an instrument response factor, if used, to be based on the mathematical average response factor for the given process fluid. Since the process fluid composition can vary considerably, EPA reduced the burden of this provision in the CAR by specifying the response factor be based on a representative response factor, which could apply to a family of process fluids. This avoids numerous response factor calculations for process fluids that are only marginally different in composition.

The CAR does not adopt a HON requirement to inspect storage vessel closed-vent systems during filling of the vessel. Pressure in a storage vessel closed-vent system, and therefore potential leaks of regulated material, is not a function of filling, since storage vessels are designed to relieve at low pressures. This requirement is not found in any of the other referencing subparts.

The HON transfer operations has a provision that repairs must be made no later than 15 calendar days after the leak is detected or at the beginning of the next transfer loading operation. The EPA decided, as a clarification, to extend this concept to all emission points, that is, that repair can be extended longer than 15 days if the closed-vent system is not in use. The proposed CAR requires repair no later than 15 calendar days or at the beginning of the next introduction of vapors to the system.

Several aspects of the HON that are adopted in the CAR provide clarity and, in some cases, burden reductions, relative to the other referencing subparts. A summary of the significant changes from the other referencing subparts follows.

The CAR clarifies that closed-vent systems must be operating at all times when emissions are vented to them. Although this requirement is explicitly stated in 40 CFR part 60, subparts VV and DDD, and 40 CFR part 61, subpart V it is only implied in the other referencing subparts that it is necessary to have the closed-vent system in operation when emissions are vented to it. The requirement derives from the general provisions requirements in each part to ''* * * operate and maintain any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practices * * *'' Also, a similar requirement for control devices is stated in many rules. Explicitly stating the requirement improves all the rules by making the compliance requirements clear.

For equipment in a closed-vent system that can divert the stream away from the control device and to the atmosphere, the owner or operator is required to either (1) install, maintain, and operate a flow indicator that takes a reading at least every 15 minutes, or (2) to secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. The HON exempts certain equipment (pressure relief valves needed for safety purposes, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines) from these requirements. The EPA has incorporated this exemption into the CAR as a clarification for the non-HON referencing subparts.

The closed-vent system provisions of 40 CFR part 60, subpart DDD, and 40 CFR part 61, subpart BB require the owner or operator to car-seal open all inline valves in a closed-vent system (valves leading to the control device). The other referencing subparts present this requirement by specifying either flow indicators or car-sealed closed valves on all lines diverting the stream away from the control device and to the atmosphere. For consistency, the car-sealed closed or flow indicator approach is followed in the CAR.

The CAR requires bypass monitoring. Instead of bypass monitoring for lines that can divert the vapors in a closed-vent system away from the control device to the atmosphere, 40 CFR part 60, subparts III and NNN contain process vent flow monitoring provisions prior to the control device. The CAR does not allow this method of monitoring for bypasses. The EPA decided that the methods used by the HON and many of the other referencing subparts are more relevant. Monitoring the vent flow does not ensure that bypasses are not taking place. Regulated sources currently using flow monitors under 40 CFR part 60, subparts III and NNN would have to switch to bypass monitoring in order to use the CAR. Furthermore, this change will be a significant burden reduction for many sources. Many process vents not subject to the HON but subject to 40 CFR part 60, subparts III and NNN, are routed to control devices subject to the HON through common closed-vent systems which are subject to the HON. These vents can, under the CAR, perform only the bypass monitoring requirements of the HON instead of also having their vent flow measured under 40 CFR part 60, subparts III and NNN.

The language used in the closed-vent system inspection provisions of the CAR are based on the more recent work practice approach of the HON and 40 CFR part 60, subpart VV for closed-vent system inspections. The requirement to ''operate with no detectable emissions'' as stated in 40 CFR part 60, subpart Kb and 40 CFR part 61, subpart Y, and the requirement of 40 CFR part 60, subpart Ka to ''collect all VOC vapors and gases discharged from the storage vessel'' are not included in the CAR. The EPA concluded that the HON work practice inspection language was more specific and easier for enforcement and compliance, while achieving the intent of the referencing subparts.

The CAR also retains the distinction between hardpiping and ductwork made in the HON and 40 CFR part 60, subpart VV closed-vent system inspection provisions. Hardpiping and ductwork have different leak inspection requirements. This distinction does not exist in 40 CFR part 61, subparts V, Y and BB. Also, HON provisions covering situations where it is unsafe or difficult to inspect the closed-vent system were applied to the CAR.

Fuel Gas Systems and Processes

Fuel gas systems consist of piping and control systems that gather gaseous streams and return them to combustion devices for use as fuel gas. For such systems, the CAR adopted the equipment and operating requirements as well as compliance determination procedures from the HON.

The EPA reasoned that the explicit HON provisions for routing emissions to a process or to a fuel gas system should be allowed in the CAR when the owner or operator chooses or is required to comply with storage vessel, transfer, or equipment leak control requirements. The emission point types covered by the HON are the same as those covered by the referencing subparts. While developing the HON, EPA determined

that routing emissions to a fuel gas system or process provides sufficient control, in most cases in excess of 98 percent reduction. None of the non-HON referencing subparts explicitly allowed this option. (See 61 FR 43703, August 26, 1996, for further discussion of this issue.)

Note that the option of routing to a fuel gas system or to a process is not provided for process vents in the CAR, since, based on the CAR's definition of process vents, these vent streams are not considered to be process vents unless or until they are vented to the atmosphere.

Non-Flare Control Devices for Storage Vessels and Low-Throughput Transfer Racks

The HON was used as the basis for the CAR language for this section. The structure is similar to the other sections of subpart G with an equipment and operating requirements, a design evaluation or performance test requirements, and a monitoring requirement paragraph. Although the language is based on the HON, it is important to note that this section represents a consolidation of HON storage vessel and HON low-throughput transfer rack provisions. Low-throughput transfer racks are racks that transfer less than a total of 11.8 million liters per year of liquid containing regulated materials.

The storage vessel and HON low-throughput transfer rack provisions are very similar. The only differences are: (1) the HON storage vessel provisions require a design evaluation and the HON transfer provisions allow a choice between a design evaluation or performance test; and (2) the low-throughput transfer rack provisions in the HON require the monitoring parameters and ranges to be identified, as does the HON storage vessel provision, but it also requires specific monitoring devices to be installed depending on the control device being used.

The CAR allows a choice of a design evaluation or performance test for both storage vessels and transfer racks. The EPA reasoned that a performance test could be used in place of a design evaluation since it is more definitive than a design evaluation in many cases. The CAR clarifies the HON transfer monitoring provisions by consolidating the provisions of the HON storage vessels. Also, EPA clarifies in the CAR that when a performance test is conducted the facility can specify the parameters to be monitored and their appropriate ranges. Continuous monitoring is not required for either storage vessels or transfer racks unless this is specifically required in the monitoring plan which identifies the parameters to be monitored and the monitoring range. This is as required in the HON storage vessel provisions and a clarification to the transfer rack provisions.

The storage vessel subparts, 40 CFR part 60, subpart Kb and 40 CFR part 61, subpart Y, do not allow for a performance test instead of a design evaluation, so the CAR provides a flexibility that was previously unavailable in these rules. The performance test/design evaluation options are summarized below:

(1) The owner or operator may choose to do a design evaluation instead of a performance test to set the monitoring parameters. The requirements for determining the monitoring parameters were taken from the HON—the owner or operator chooses the parameters, the ranges, and the monitoring frequency based on site-specific information, manufacturer's specifications, engineering judgment, or other significant information.

(2) The owner or operator may vent to a shared control device that must comply with the performance testing requirements of the CAR. The requirements for this case are taken from the HON. There are minimal records and reports for this case, because the facility is already keeping records and submitting reports for the other emission point that shares the control device. The EPA reasoned that requiring just the performance test instead of the design evaluation would be acceptable, as the performance test provides the information necessary to assure the control device can perform at the level needed to meet the standard.

(3) The owner or operator may choose to do a performance test instead of a design evaluation. This is the new option under the CAR; it is not contained in any of the referencing subparts except for the HON transfer rack provisions. This option applies the provisions for determining parameter ranges as described in the option for storage vessels and low-throughput transfer racks conducting a design evaluation on a non-shared control device (option 1).

Subpart BB of 40 CFR part 61 does not provide for a design evaluation instead of performance test for low-throughput transfer racks. The EPA reasoned that performance tests should not be required for subpart BB low-throughput transfer racks for the same reason that they are not required for HON low-throughput transfer racks. At this low level of throughput it is difficult to organize a performance test because of the infrequent loading of tank trucks or railcars. (See Hazardous Air Pollutant Emissions from Process Units in the Synthetic Organic Chemical Manufacturing Industry—Background Information for Final Standards. Volume 2A: Comments on Process Vents, Storage Vessels, Transfer Operations, and Equipment Leaks. Final IS. EPA–453/R–94–003a. pp 4–13—4–14.) Also, EPA recognizes that many of the subpart BB transfer racks at a SOCMI facility will be subject to the HON. Therefore, this provision is already available to these subpart BB transfer racks.

Subpart Ka of 40 CFR part 60 requires submission of a monitoring plan for control devices (including flares), but it contains no requirements to monitor per the plan or to report. The CAR storage vessel non-flare control device provisions are more prescriptive than the subpart Ka provisions, but EPA believes that there are very few subpart Ka storage vessels using closed-vent systems and control devices for compliance. In the spirit of consolidation, and noting that the CAR is a compliance alternative, the design evaluation and compliance determination provisions are based on the HON language.

Provisions in the HON, 40 CFR part 60, subpart Kb, and 40 CFR part 61, subpart Y, all provide the equivalent of a design evaluation in the case where storage vessel vapors are controlled by a non-flare control device. The CAR language, as based on the HON, has several details required in the design evaluation that are not required in subparts Kb and Y. Specifically these details pertain to information that must be included in the design evaluation given the type of device. For instance, the CAR specifies for enclosed combustors that, if applicable, the design evaluation must include the autoignition temperature of the stream being combusted, the flow rate, the combustion temperature and the residence time. The CAR also specifies the information required for carbon adsorbers and condensers. Subparts Kb and Y do not contain these details. The EPA is requiring these details in the CAR because these are the pieces of information that would be contained in a design evaluation whether it be for a HON or subpart Kb or Y storage vessel. By specifying these as requirements, the CAR is clearer and will avoid miscommunications when design evaluations are prepared.

Subpart Kb of 40 CFR part 60 and 40 CFR part 61, subpart Y require a minimum residence time of 0.75 seconds and a minimum temperature of

816° C for enclosed combustion devices. Enclosed combustion devices with temperature and residence time greater than or equal to these minimums need only indicate in the documentation that this condition exists and no other documentation is required. The CAR has the same provision but uses a minimum temperature of 760° C and a minimum residence time of 0.5 seconds, as does the HON. The EPA chose the HON values to incorporate in the CAR because it was determined under the HON that these values are appropriate to obtain the necessary emissions reduction. Also, by using the HON values, the enclosed combustors meeting the minimums in subparts Kb and Y would also meet the minimums under the HON.

The requirement in 40 CFR part 60, subpart Kb and part 61, subpart Y to include in the design evaluation report the manufacturer's design specifications for the control device was not incorporated into the CAR because most controls are not purchased as a package; other requirements in the CAR will provide sufficient reports of the control device specifications.

Non-Flare Control Devices Used to Control Equipment Leaks

A section of subpart G of the CAR contains the equipment, operating, and monitoring requirements for non-flare control devices used to control equipment leak emissions. Very similar language is used in all three equipment leaks referencing subparts. This section clarifies that a performance test is not required for control devices used only to control emissions from equipment leaks.

The requirement to operate the control device at all times when emissions are vented to them is explicitly contained only in 40 CFR part 60, subpart VV, but the requirement can be inferred for the other subparts as outlined above in the general closed-vent system discussion.

Flares

Equipment and operating provisions for flares are consolidated into this section of the CAR from many referencing subparts, including the general provisions from 40 CFR parts 60 and 63. The flare equipment and operating requirements, flare compliance determination procedures, and monitoring provisions are consolidated, as discussed below.

The EPA identified that the HON requirement for pilot flame monitoring could be read to call for monitoring of each pilot flame, which was not the intent of the HON. The wording was clarified to require a device capable of ''detecting that at least one pilot flame is present.'' The EPA also decided that to increase the flexibility of the rule, flare flame monitoring would be allowed as it is allowed in 40 CFR part 60, subpart DDD. Any outage of the flame or pilot flame would be reportable under the CAR.

The HON language is used in the CAR for clarification on performing the Method 22 visible emission tests for flare compliance determinations at transfer operations with loading cycles of less than 2 hours. The observation under Method 22 is required to extend for 2 hours. Under the CAR, the observation can be conducted for the complete loading cycle for loading cycles less than 2 hours. Subpart BB of 40 CFR part 61 does not have this provision.

The heating value formula for flares from 40 CFR part 60 general provisions is used throughout the CAR because this equation is believed to be the most prevalent in use. Using the part 60 general provisions equation consolidates and clarifies the equations, which were presented in the various referencing subparts with different terms, different formats, and on different bases (wet or dry). The various equations, however, all yield the same results if correctly applied, but the different representations caused confusion. The heating value equation for part 60 process vents, for example, was changed from a dry to a wet basis to be identical to the part 60 general provisions equation. Note that a ''D'' variable instead of a ''C'' variable for concentration is used in this equation to distinguish net heating value concentration from another concentration variable used in earlier equations in the CAR.

The CAR includes a requirement that is essentially the same as provisions in 40 CFR part 60, subpart DDD requiring flare flame or pilot monitors to be operated during any flare compliance determination. This is a common sense provision that is not explicitly stated elsewhere, and it is included in the CAR for consistency and clarity.

Incinerators

For the most part, the HON language was used as the basis for the incinerator provisions in the CAR. Incinerator operating requirements from 40 CFR part 60, subparts VV and DDD were used in the CAR to explicitly require that incinerators shall be operated at all times when emissions are vented to them. The actual part 60 requirements specify that the incinerators shall be operated at all times when emissions may be vented to them. This was clarified in the CAR to read ''are vented to them'' because the part 60 requirement could be interpreted to require continuous operation of the device even when not receiving emissions. In addition, while this requirement is not explicitly stated in the HON for incinerators, it is an implied general control device requirement that the control device must be operating. This provision has been added to all the control device sections but is only mentioned here.

In addition, a provision from the NSPS process vent rules (40 CFR part 60, subparts DDD, III, NNN, and RRR) was included in the incinerator section. This provision specifies what should be done if an owner or operator decides to replace an existing control device with another control device. The HON does not specify what should be done in this case, and the NSPS language specifies that the notice be made 90 days before the change. The NSPS language was used in the CAR, but modified to state that the notification of the change must only be made prior to the change. This notification can be included in an amendment to a title V permit or, if title V is not applicable, in a separate notice that can be part of a periodic report. The addition of this provision adds clarity. This provision was added to every control device section but is only mentioned here.

To clarify when initial performance tests are required, the CAR added language regarding incinerator performance test requirements. The HON language exempting an owner or operator from the requirement to conduct a performance test if the incinerator burns hazardous waste and meets the requirements of RCRA was included in the CAR for all sources subject to performance test requirements. The EPA has determined that these incinerators are adequately tested under the RCRA program. (61 FR 43708, August 26, 1996) This exemption also applies to design evaluations and performance tests for storage vessels and low-throughput transfer racks and is included in the section of subpart G regarding non-flare control devices used on storage vessels and low-throughput transfer racks.

Boilers and Process Heaters

Although the HON language for boiler and process heater requirements was used for the basis of the requirements in the CAR, 40 CFR part 60, subparts DDD, III, NNN and 40 CFR part 61, subpart BB contain essentially the same requirements for boilers (subpart RRR of 40 CFR part 60 contains requirements identical to the HON.) One exception is

that some of the referencing subparts do not contain the exemptions from performance tests and from monitoring for vents introduced as primary fuel or for boilers or process heaters larger than 44 MW. An exemption from performance testing and monitoring when the vent stream is mixed with the primary fuel, or for boilers or process heaters larger than 44 MW, was taken from the HON and included in the CAR. The basis for this decision by EPA to allow these exemptions is contained in Reactor Processes in the Synthetic Organic Chemical Manufacturing Industry—Background Information for Promulgated Standards (EPA–450/3–90–016b). This document explains that a vent stream introduced with the primary fuel would be expected to have an emissions reduction greater than 98 percent because temperatures are higher when the vent stream is passed through the flame front. The EPA has also outlined in this document that large boilers and process heaters are expected to achieve an emission reduction greater than 98 percent. These exemptions also apply to design evaluations and performance tests for storage vessels and low-throughput transfer racks and is included in the section of subpart G regarding non-flare control devices used on storage vessels and low-throughput transfer racks.

The requirement in 40 CFR part 61, subpart BB and in 40 CFR part 60, subparts DDD, III, and NNN for records to be kept of the periods of boiler or process heater operation is not included in the CAR. The record of boiler or process heater periods of operation is not necessary as it is a safety hazard to introduce gas into an idle combustion device. Therefore, vent streams are not expected to be vented to the boiler or process heater unless the device is operating, so a record of when the device is or is not operating is not needed.

Absorbers, Condensers, and Carbon Adsorbers Used as Control or Final Recovery Devices

Subpart G of the CAR covers absorbers, condensers, and carbon adsorbers in four sections of the subpart. Section 65.150 covers absorbers as control devices, § 65.151 covers condensers as control devices, and § 65.152 covers carbon adsorbers as control devices, and § 65.153 covers all three devices when they are used as final recovery devices. The recovery device section (§ 65.153) is specifically for devices that are used as final recovery devices on Group 2A process vents. When these devices are used as control devices (i.e., a recapture device on a Group 1 process vent, or a recovery or recapture device on a transfer rack) §§ 65.150 through 65.152 apply, as applicable.

Very few changes were made to the HON language for these devices, except for the restructuring of provisions (discussed in sections IV.B and VI.A of this preamble), the addition of the NSPS process vent provision on changing control devices and the requirement to be operating at all times when emissions are vented to them (both discussed in this section under incinerators). Changes to the other referencing subparts are discussed below.

Subpart BB of 40 CFR part 61 for benzene transfer operations does not contain provisions for condensers and absorbers. It does allow carbon adsorbers equipped with organic monitoring devices to be used. In the CAR, the absorber and condenser provisions are available for all referencing subparts, including subpart BB.

In addition, under 40 CFR part 61, subpart BB for benzene transfer operations, only organic monitors could be used for determining compliance with the standard when using a carbon adsorber. Under 40 CFR 60, subpart DDD, only organic monitors could be used for determining compliance with the standard when using an absorber, condenser, or carbon adsorber for control of a continuous process vent. In the CAR, as in the HON, either an organic monitoring device or a regenerative stream flow monitoring device is allowed for carbon adsorbers; an organic monitoring device or a condenser exit temperature monitoring device is allowed for condensers; and an organic monitoring device, or a scrubbing liquid temperature monitoring device and a specific gravity monitoring device is allowed for absorbers.

Halogen Scrubbers and Other Halogen Reduction Devices

Halogen reduction device requirements have been consolidated into one section rather than listed in the individual control device sections. These HON requirements have been included in the CAR for all process vents and transfer operations. The other referencing subparts did not have specific halogen vent stream requirements, so the CAR is potentially introducing some additional requirements for halogenated vent streams subject to the non-HON referencing subparts, if the owner or operator chooses to comply with the CAR.

Other Control Devices

This section (§ 65.155) of subpart G outlines the requirements for control devices other than those specified in §§ 65.147 through 65.154. The CAR differs from 40 CFR part 60, subparts DDD, III, NNN, and RRR in that more detail is given in the CAR on the information that must be provided to the Administrator in order to obtain approval for other devices. Under the NSPS, the Administrator specifies the appropriate monitoring procedures for the device. Under the CAR, a plan is submitted that includes the proposed monitoring, reporting, and recordkeeping procedures. By providing more details on the information to be submitted and by allowing the facility to propose monitoring, EPA believes this will clarify the information needed and aid in communication during the process of reviewing these plans.

Subpart DDD of 40 CFR part 60 and 40 CFR part 61, subpart BB also contain a general duty requirement that specifies that the facility must ''provide the Administrator with information describing the operation of the control device * * * that would indicate proper operation and maintenance * * *'' for non-listed control devices. The EPA did not include the general duty requirement in the CAR in favor of the more specific monitoring requirements for non-listed control devices from 40 CFR part 63, general provisions, and the HON.

Under the CAR, approval authority for the monitoring recordkeeping, and reporting requirements for other control devices is delegated to the states as it is under the HON and part 61. Under the NSPS process vent referencing subparts, this authority is not delegated. The decision to delegate authority is consistent with state authority under title V. The EPA considered that authority should be delegated for this approval across all the rules in order to consolidate the provisions. Also, many of the facilities subject to the NSPS process vent referencing subparts are also subject to the HON, therefore the authority would already be delegated to the States in many instances.

H. Monitoring, Recordkeeping, and Reporting

This section describes the CAR provisions from subpart G regarding performance tests, monitoring, recordkeeping, and reporting requirements. These provisions are included in subpart G, rather than in the general provisions, because they are specific requirements for closed-vent systems, control and recovery devices,

and routing to a fuel gas system or process.

Many significant differences exist between the CAR provisions on monitoring, recordkeeping and reporting (which generally follow the HON provisions), and these same provisions in the non-HON referencing subparts. This section provides a brief description of the differences. For a more complete discussion of the HON recordkeeping program see the HON proposal preamble (57 FR 62608, December 31,1992), the promulgation preamble (59 FR 19407, April 22, 1994), and the Background document at promulgation (Hazardous Air Pollutant Emissions from Process Units in the Synthetic Organic Chemical Manufacturing Industry—Background Information for Final Standards, Volume 2E: Comments on Recordkeeping, Reporting, Compliance and Test Methods, EPA–453/R–94–003e).

Both the CAR and the part 60 and 61 subparts require monitoring of the same control device operating parameters. However, the CAR requires a site to justify and set site-specific operating parameter ranges for control and recovery devices. The site can set the operating parameter ranges to be the same as the NSPS established ranges. The control or recovery device operating parameters are monitored and if the monitoring results, on a daily average basis, fall outside the parameter range, then there is an excursion and it must be reported. The CAR allows one excused excursion before the excursion is considered a violation. The HON allows six excused excursions in the first semiannual reporting period (this would be in the first year of being subject to the HON), five excused excursion in the second semiannual reporting period, and so on, until one excused excursion is allowed in the sixth and all subsequent semiannual reporting periods.

The CAR provisions are different from the non-HON referencing subparts where specific monitoring ranges are given in the rules depending on the control or recovery device being used. In 40 CFR part 60 and 61, 3-hour averages are required of the monitored parameters. These 3-hour averages are compared to the monitoring ranges specified in the rules. If a 3-hour average is outside the range in the rule it must be reported, and the out-of-range values may trigger the Administrator to require another performance test. If the performance test indicates that the control or recovery device is not performing at the required level, the facility would be in violation.

The CAR allows owners or operators to use the ranges from the non-HON referencing subparts as the operating parameter ranges for the sources accustomed to those ranges; or, a source can justify a site-specific range. However, any excursions after the one excused excursion would be considered a violation.

One change made to these HON provisions in the CAR pertains to the records of continuous monitors. In the HON, the owner or operator has the option of maintaining a record of (1) each measured value, or (2) block average value for intervals up to 15-minute averages. The CAR also contains these options. In addition, a third option is given that allows retention of hourly average data and the most recent three valid hours of continuous records. The EPA decided to allow this option as a burden reduction, because many computer systems currently in use in the SOCMI industry only archive hourly data and ''over-write'' the raw data every few hours, because of the massive amount of storage that would be required to maintain records of data on a more frequent basis. Typical SOCMI process computer systems handle thousands of data points, so that even hourly records involve tens of thousands of data records each day. The CAR alternative has been provided to allow use of these existing systems without requiring installation of new computer systems or parallel paper (strip chart) systems. The EPA felt it was necessary to require the most recent three valid hours of records so that an inspector would have the necessary data to determine whether averages were correctly calculated. The EPA reasoned that 3 hours of data are sufficient for checking on potential programming error. By requiring the most recent 3 hours, the EPA ensures a randomness to the 3 hours of data available to check. The CAR specifies valid hours because an invalid hour of monitoring may not contain the necessary data for the average verification. By providing for adequate data to demonstrate that the hourly average is correctly calculated, no reduction in compliance assurance is anticipated and very large initial and ongoing costs for new recordkeeping systems are avoided for many SOCMI facilities.

The following paragraphs describe additional burden reductions and clarification changes made in the monitoring, recordkeeping, and reporting sections of subpart G.

General Monitoring Requirements

The CAR specifies which monitoring data must be kept and used for compliance when a primary CPMS and a backup are being used. This clarification is not explicit in parts 60 or 61.

The CAR adopts the requirements from 40 CFR parts 61 and 63 general provisions for the immediate repair or replacement of CPMS parts to correct routine malfunctions. These requirements are not in the general provisions of 40 CFR part 60. This requirement spells out good practices as required under 40 CFR 60.11(d) and 60.13(e) and (f), 40 CFR part 60, subpart A.

In addition to the provisions to request alternative monitoring and recordkeeping procedures allowed under all referencing subparts, the CAR, as does the HON, specifically allows nonautomated CPMS in certain situations. Although nonautomated CPMS are allowed, the provisions do require data to be collected, no less frequently than hourly. Therefore, EPA believes that nonautomated CPMS would be a real option only for facilities where the cost of automation would not be justifiable. A small batch operation is an example where the cost may not be justifiable.

Performance Tests and Flare Compliance Determination Requirements

The CAR allows 180 days to complete required performance tests, and 60 days to submit the report after the performance test. The general provisions to part 60 allow up to 180 days and the General Provisions to part 61 allow 90 days for conducting the performance test and submitting the report. The General Provisions to part 63 allow 180 days to conduct the performance test and 60 days to submit the report, while the HON specifies 150 days to conduct the test. The EPA adopted the time frame from the part 63 general provisions because it provides the greatest amount of time to conduct the performance test and prepare the report; this more expansive time frame is appropriate for the CAR, given the potentially large number of performance tests and reports that would need to be completed. The shorter length of time from part 61 would not be appropriate for the CAR because the CAR covers several emission point types, and the shorter time frame could make the organizing of the performance tests and the preparing of reports more difficult.

The referencing subparts do not clearly indicate what activities must be performed during a performance test for a flare. The CAR does not use the term ''performance test'' for flares; for the purposes of distinction and clarity, the

CAR refers to ''flare compliance determinations.'' Some HON provisions for performance tests should be included in the CAR's flare compliance determination, but many should not. The provisions that do apply are adopted from the performance test language in the HON, but are modified to apply to flares. Examples of the provisions that apply to flare compliance determinations are the provision that the Administrator may require a flare compliance determination at any time and the provision on flare compliance determination waivers. The EPA considers this a clarification.

The CAR excludes a provision from both 40 CFR part 61, subpart BB and the HON that requires a closed-vent system routing emissions from a transfer rack to a control device to be inspected prior to a performance test being conducted. The inspection is a leak detection inspection using Method 21. The EPA did not include this provision in the CAR because the closed-vent system is already under the requirement to be inspected initially and annually. This initial and periodic inspection is sufficient to ensure that the closed-vent system does not leak during the performance test. Also, closed-vent systems on other types of emission points are not required to be inspected prior to a performance test.

Sources are not required to conduct a performance test to comply with the CAR if a performance test has been conducted previously using the same test method required by the CAR and under the same operating conditions that currently exist. This exemption is not in any other referencing subparts other than the HON.

Additionally, the CAR allows performance tests and compliance determinations to be waived through written request to the Administrator if the Administrator determines that (1) the source is being operated in continuous compliance, (2) the source is operating under a compliance extension under 40 CFR part 63, or (3) the source is operating under a compliance waiver under 40 CFR part 61.

Performance Test Procedures

The CAR specifies that each performance test will consist of three separate runs using the applicable method; each run must be at least an hour in duration; and compliance will be determined using the arithmetic mean of the results of the three runs. This language is taken from the general provisions for 40 CFR part 60. The HON has similar language, but 40 CFR part 61 has no equivalent. Thus the CAR clarifies the requirements for part 61 sources.

The CAR requires that performance tests be conducted during ''maximum representative operating conditions for the process.'' It clarifies this requirement by specifying that, during the performance test, the control device may be operated at maximum or minimum representative operating conditions for monitored control device parameters, whichever results in lower emission reduction. The general provisions of 40 CFR parts 60 and 63 also require performance tests at maximum capacity and at representative operating conditions of the process. Subparts III, NNN, and RRR of 40 CFR part 60 require performance tests to be conducted at ''* * * full operating conditions and flow rates * * .'' The general provisions of 40 CFR part 61 require the performance test to be run ''* * * under such conditions as the Administrator shall specify * * *.'' None of the non-HON referencing subparts, nor any of the general provisions, contain the additional clarifying provisions that the control device may be operated under maximum or minimum representative operating conditions, whichever results in lower emission reduction. The CAR provisions represent the intent of all of the referencing subparts and add some additional clarity.

For transfer racks, the CAR provides details on how a performance test must be conducted for control devices capable of continuous vapor processing and for intermittent vapor processing systems. Subpart BB of 40 CFR part 61 does not specify these details for transfer racks and requires performance tests to be conducted over a complete loading cycle. The explicit provisions of the CAR are useful for transfer racks because loading a tank truck or railcar can take much longer than an hour. For long loading cycles it makes sense to base the test run on how the control device works instead of on the loading cycle.

The CAR clarifies the performance test requirements for a boiler or process heater with a design input capacity less than 44 MW that is used as a control device. The CAR requires the inlet sampling site to be located so that it measures the pollutant concentration in all vent streams and primary and secondary fuels. Therefore, the percent reduction is determined for all vent streams and primary or secondary fuels. This clarification is not in 40 CFR part 60, subpart DDD, III, or NNN.

Subpart BB of 40 CFR part 61 allows the use of Method 25B to determine concentration for calculating the percent reduction efficiency. The CAR does not allow this method because Method 25B can only be used when a primary constituent in the vent stream is assumed. In a consolidated rule for SOCMI, an industry that varies significantly on vent stream composition, a method that is not flexible can not be specified. Method 25B can always be requested as an alternative method, on a case-by-case basis.

For combustion devices that do not use supplemental combustion air, the CAR does not contain the provision in 40 CFR part 61, subpart DDD which specifies that the concentration shall not be corrected to 3 percent oxygen when calculating the percent reduction or outlet concentration. Rather, the CAR and all of the other referencing subparts require the concentration to be corrected to 3 percent oxygen for all combustion devices. The EPA requests comment on what effect this may have on subpart DDD sources.

Performance Test Records

The CAR includes the requirement for records to be kept of the location where a vent stream is introduced into a boiler or process heater. However, the CAR does not include the requirement contained in 40 CFR part 60, subpart DDD to also keep these records for incinerators. Subpart DDD is the only referencing subpart that has this requirement. Incinerators are required to have performance tests and continuous monitoring conducted. Conversely, boilers and process heaters that have their vent stream introduced with the primary fuel (in the flame zone) are not required to have performance tests or continuous monitoring conducted. Therefore, it is not necessary to locate where the vent stream is introduced in an incinerator for a determination of compliance, because performance tests and continuous monitoring are required. The EPA considers this a burden reduction.

The CAR requires records of the percent reduction or pollutant concentration to be determined at the outlet of the combustion device, on a dry basis corrected to 3 percent oxygen. While 40 CFR part 61, subpart BB does not explicitly require that the percent reduction be recorded for boilers less than 44 MW design input capacity, it is generally understood that these records are required. The CAR therefore clarifies the intent of subpart BB.

Non-Flare Control and Recovery Device Monitoring Records

The CAR reduces the requirements for CPMS calibration records by requiring only those records that are necessary to

determine the accuracy of the readings. The CAR requires retention of only the ''as found'' and ''as left'' readings whenever an adjustment is made that will effect the CPMS reading, and a ''no adjustment'' statement otherwise. Compared to referencing subpart language requiring retention of ''all'' calibration records, the CAR language significantly reduces the number of potential records that must be retained and adds clarity to what is needed.

Under the CAR, the option to use a data compression system for control and recovery device data handling is allowed. Owners or operators may request approval of an automated data compression recording system that does not record values at a set frequency, but records values that meet set criteria for variation from previously recorded values. Under the 40 CFR parts 60 and 61 referencing subparts, this data compression option was not previously offered. Although EPA does not generally recommend expanding the application of this data compression option until experience is gained with the impact of such record-reduction systems on compliance determinations and enforcement, this provision is extended in the CAR to 40 CFR parts 60 and 61 sources to provide HON sources this flexibility, which was previously provided to them, and to facilitate consolidation of the rules.

Other Records

Section 65.163 contains requirements for ''Other Records.'' Under the CAR, closed-vent systems that contain bypass lines keep only hourly records of flow indicator operation and diversion detection. Subpart RRR of 40 CFR part 60 requires ''continuous records.'' The EPA determined that continuous (i.e., 15-minute records) records are not necessary to ensure compliance in this case, but rather continuous monitoring with a record made once per hour indicating whether there was flow (and therefore, bypass) at any monitored time within the hour. Similarly, 40 CFR part 60, subpart DDD, RRR, and NNN require continuous records of pilot flame monitoring results, while the CAR requires hourly records like the HON and the 40 CFR parts 60 and 63 general provisions flare requirements.

The CAR does not include the provision from 40 CFR part 60, subparts DDD and RRR and 40 CFR part 61, subpart BB, and the HON transfer provisions that requires a description to be maintained of the vent stream. The description must contain a schematic recording of all valves and vent pipes that could vent the stream to the atmosphere. The EPA decided that this record would not be required in the CAR because of the burden associated with keeping a description with an up-to-date schematic. These types of descriptions are difficult to keep up-to-date because of the frequency with which the routing systems change. Also, the facility can explain the system at an inspector's request with the aid of other drawings, equipment leak records, and visually. An inspector could also request this description to be provided at the time of the inspection.

The CAR incorporates language from the HON which recognizes unsafe or difficult-to-inspect equipment in a closed-vent system which allows less frequent monitoring of such equipment. This allowance is not in 40 CFR part 61, subpart V. The CAR therefore provides some flexibility in dealing with this type of equipment.

For car seals, the CAR requires monthly visual inspection with records that indicate when a car-seal is broken. The 40 CFR part 60, subpart RRR requirement to record the serial numbers of car-seals and to maintain this record when car-seals are replaced is not in the CAR. Thus, the necessary record is whether a car-seal is broken and not exactly which car-seals are in place. Not having to record the serial numbers of all car-seals provides a burden reduction to subpart RRR sources.

When equipment leaks are detected in a closed-vent system, 40 CFR part 61, subpart V and 40 CFR part 60, subpart VV require records of information such as repair method, the signature of owner or operator, and expected date of successful repair. These requirements are not included in the CAR. In the spirit of consolidation, EPA considers that the records specified in § 65.163(a)(3) adequately document the necessary information for leaking equipment. The required records are: the instrument and the equipment identification number; the operator name, initials, or identification number; the date the leak was detected, the date of the first attempt at repair, the date of successful repair of the leak; maximum instrument reading measured after the leak is successfully repaired or determined to be nonrepairable; the reason for a delay of repair, if there is a delay; and copies of the periodic reports if records are not maintained on a computerized database.

The CAR includes requirements for records to be maintained of locations where a vent stream is introduced into the boiler or process heater, and of instances when this location is changed. This requirement is also included in the referencing subparts. However, as a burden reduction, the CAR does not contain the requirement in 40 CFR parts 60 and 61 to report this information. This information is helpful to the implementing agency if a change is made and the vent stream no longer will be introduced with the primary fuel; in these cases, a performance test may be necessary. If so, a notification and report of the performance test are required. Therefore, these cases will be reported. In the other situations, these records can be reviewed, as needed, at the facility.

The CAR provides additional flexibility regarding the notification to the Administrator that a performance test is being conducted. Although this flexibility is not currently provided in the referencing subparts, it is consistent with revisions proposed in 61 FR 47840, September 11, 1996 (Recordkeeping and Reporting Burden Reduction). The CAR specifies what should be done if there is a delay in conducting the scheduled performance test. The CAR requires the owner or operator to provide at least 7 days notice prior to the rescheduled date of the performance test, or to arrange a rescheduled date by mutual agreement with the Administrator. The EPA recognizes that unforeseen situations happen and that provisions for rescheduling are useful.

The CAR allows a request to be submitted at any time for the use of alternative test methods. The general provisions of 40 CFR part 61 includes time constraints on when an alternative test method may be requested (i.e., 30 days after the effective date or, for new sources, not later than with the notification of anticipated startup). Although all general provisions allow an alternative test method to be requested, the other general provisions do not specify a time frame within which the request must be submitted. The EPA considers it a clarification to not specify a time frame within which the request must be submitted, because an alternative test method may be requested for performance tests other than at startup. It is not necessary to have the test method approved 30 days after an effective date or by the notification of anticipated startup as long as it is approved in time to conduct the performance test on schedule.

VII. Delegation of the CAR to State Authorities

Many States have obtained delegation to implement and enforce the CAR's referencing subparts. These States' authority to implement and enforce the underlying NSPS or NESHAP rests on the State code, and the delegation of authority by EPA to the State in turn

rests on the State's ability to implement and enforce those Federal requirements.

By today's action, EPA is proposing to consolidate and somewhat revise certain provisions contained in parts 60, 61, and 63, for affected SOCMI sources, such that regulated sources would be allowed to comply with those newly revised provisions in the CAR. These regulatory revisions could result in the need for subsequent action at the State level to revise the State code and to submit an updated delegation request to EPA, which could then necessitate additional Federal administrative procedures, before the source could take advantage of the CAR and before the State could enforce it. State rulemaking and EPA action on delegation requests are time consuming, often taking several years. In the interim, the source may be unable to avail itself of the CAR benefits, because the CAR could apply at the Federal level while the NSPS and NESHAP continue to apply through the State's code until the State's code can be amended.

The EPA does not wish such a situation to impede adoption of the CAR by a source. Indeed, EPA encourages implementation of the CAR at the earliest possible date following promulgation of the final rule. A streamlined approach to implement the CAR under delegated State authorities is thus an important ingredient to the success of the rule consolidation effort.

In order to facilitate and expedite delegation and implementation of the CAR, EPA is taking two steps. First, EPA is proposing to recognize the CAR as an alternative compliance approach to the individual subparts being consolidated. This step, as discussed below, may allow sources in some States to begin to use the CAR immediately after promulgation while still remaining in compliance with the existing State code of regulations upon which delegation is based. The EPA believes this will be a useful approach for States that have the ability to recognize approved alternatives under the existing State regulations on which delegation rests. Second, to minimize administrative delays, EPA is proposing to waive the need for formal delegation of the CAR where the State is already delegated authority to implement the underlying NSPS or NESHAP subparts. Both of these proposed actions are discussed in more detail below.

A. Approval of the CAR as an Alternative Compliance Approach

The NSPS and NESHAP being consolidated in today's proposal, and the statutory authorities from which those rules stem, provide for the approval of alternative means of emission limitations and for appropriate alternative testing or monitoring methods as approved by the Administrator. To facilitate and expedite implementation, EPA is proposing to approve the CAR as a comprehensive alternative set of compliance requirements to the NSPS and NESHAP which it consolidates, specifically 40 CFR part 60 subparts A, Ka, Kb, VV, DDD, III, NNN and RRR; part 61 subparts A, V, Y, and BB; and part 63 subparts A, F, G, and H. This pre-approved alternative would be available for all sources to which the CAR applies.

The intent of this approval is to allow States and sources immediate use of the CAR, by providing a mechanism through which States can implement and enforce the CAR prior to undertaking additional State rulemaking. By designating the CAR as an approved alternative compliance approach under the existing NSPS and NESHAP, EPA seeks to provide a doorway within the existing State code and delegated authorities through which the CAR can be accessed, utilized, and enforced. This approach may eliminate or minimize the need for State rule revisions and delegation updates.

The Administrator is proposing approval of the CAR as an alternative means of compliance with the individual subparts listed above.

The CAR streamlines and revises much of the existing monitoring, record keeping, and reporting procedures of the underlying NSPS and NESHAP standards, without changing the basic control requirements or monitoring methods. Today's proposal is intended to simplify implementation of the standards, to reduce EPA, state, and industry burden in complying with the rules, and to facilitate compliance monitoring, while having no adverse effect on the accuracy, quality, and timeliness of the compliance monitoring data. EPA is proposing that all of the provisions of the CAR serve in whole as an alternative compliance approach for the subparts which it consolidates. To simplify implementation, the CAR can be used directly as an alternative compliance approach, without prior application or request to EPA. The CAR simply requires notification that the alternative approach would be implemented.

The EPA expects that comprehensive approval of the CAR as an alternative compliance approach for the existing NSPS and NESHAP which it consolidates will facilitate and expedite implementation by states and local agencies. EPA is today proposing to revise the underlying NSPS and NESHAP regulations such that the CAR would be recognized as an alternative approach to the existing NSPS and NESHAP provisions for sources opting into the CAR. However, EPA is aware that the unrevised NSPS and NESHAP regulations will, at least for an interim, remain the enforceable provisions in many states, absent state rulemaking to incorporate the CAR. The NSPS and NESHAP as they are currently adopted by the state also remain federally enforceable in those states where they form the basis of delegation by EPA to the state. Today's proposed action to approve the CAR as an alternative compliance approach clarifies EPA's intent that compliance with the CAR should serve to fulfill a source's obligations to comply with applicable NSPS and NESHAP consolidated therein, even in cases where the unrevised NSPS and NESHAP still reside in the state or local code. States may rely on this approval under the existing NSPS and NESHAP to allow sources expedited use of the CAR, and may enforce the CAR as an approved alternative compliance approach for the existing NSPS and NESHAP in accordance with the current delegation of authority to the state.

The EPA is providing notice and opportunity for comment on this proposed action to approve the CAR as an alternative compliance approach to 40 CFR part 60 subparts A, Ka, Kb, VV, DDD, III, NNN and RRR, part 61 subparts A, V, Y, and BB, and part 63 subparts A, F, G, and H. Comments are requested with regard to both the validity of this approval and to the usefulness of this mechanism for expediting implementation of the CAR.

B. Policy on Delegation of the CAR

Today's proposed rule was developed based on consolidating the existing requirements of Parts 60, 61, and 63 that apply to SOCMI, without changing the applicability or reducing the stringency of the existing regulations. For this reason, EPA believes that, where a State has been delegated authority to administer all of the applicable rules under Parts 60, 61, and 63, no further delegation of authority is necessary in order for such State to administer the CAR. The EPA therefore proposes to allow a State to administer the CAR without further action by EPA if such State has been delegated the authority to administer each of the applicable referencing subparts.

However, States that lack delegated authority to administer any of the referencing subparts that apply at a source that seeks to implement the CAR

must obtain such delegation prior to allowing that source to comply with the CAR.

The EPA requests comment on this proposed delegation policy.

VIII. Incorporating CAR Requirements Into the Title V Permit

Title V of the Act and EPA's operating permits regulations at 40 CFR part 70 require all ''applicable requirements'' (standards or requirements under the Act, as defined at 40 CFR part 70.2) to be included in the operating permit for any source that is required to have an operating permit. Since a permit can contain only the applicable requirements in effect at the time it was issued, or last revised, any newly-promulgated requirements (such as those in the CAR) would not be in the permit until the permit is revised to include them. Revising the permit is also necessary if a source adopts substitute requirements under the CAR, since without a permit revision, the source would be in non-compliance with the provisions of its operating permit. Consequently, once a source adopts the CAR, to the extent that the existing permit terms will be replaced or modified by provisions of the CAR, the permit must be revised to delete those permit terms and add the applicable CAR provisions. This section discusses the processes by which permits would be revised to incorporate provisions of the CAR.

Under 40 CFR part 70.7, operating permits may be revised through one of three mechanisms: administrative amendments, minor permit modifications, or significant permit modifications. The administrative amendment process is for: (1) changes that are trivial or administrative, such as typographical errors, or change of ownership; (2) changes that provide more frequent monitoring or reporting; (3) incorporating terms of preconstruction permits that meet the compliance requirements of section 70.6 and that were issued under a process that has been ''enhanced'' to provide EPA and public review; or (4) other changes similar to these that have been approved by EPA in a State part 70 program. Any change resulting from CAR requirements will add the CAR as an applicable requirement to the source's permit, and therefore, is not likely to be a trivial or administrative change. In addition, the CAR will usually require less rather than more frequent monitoring or reporting. Consequently, CAR requirements do not appear to be eligible as administrative amendments.

To determine if incorporation of CAR requirements qualifies as a minor permit revision, the type of change that might arise from the CAR must be evaluated against the relevant criteria of §§ 70.7(e)(2)(i)(A)(1) through (6). If the change does not meet any of these criteria (the criteria are written in the negative), the change may be made using the minor permit revision process; otherwise, it must use the significant permit revision procedures. To summarize the minor permit revision criteria, a minor permit revision is not allowed if the change: (1) violates an applicable requirement; (2) significantly changes existing monitoring, reporting, or recordkeeping; (3) establishes or changes case-by-case emissions limitations; (4) establishes a potential-to-emit limitation; (5) is a title I modification; or (6) is required by the permitting authority to be a significant permit modification. Criterion (2) is clearly the one criteria that might be triggered by incorporation of CAR requirements, since CAR requirements could change existing monitoring, reporting, or recordkeeping requirements in the permit. To determine if criterion (2) does apply, it is necessary to determine if incorporation of CAR requirements will result in a significant change to monitoring, reporting or recordkeeping requirements.

In terms of their significance to monitoring, recordkeeping or reporting requirements, changes from the CAR can be sorted into two broad categories, depending on the amount of discretion a source has in determining the new requirement. The first category comprises changes over which the source has little discretion in determining the monitoring, recordkeeping or reporting requirements. In most cases, the monitoring, recordkeeping and reporting requirements are established by the CAR, and once the source has decided to be covered by the CAR, it has no ability to change the requirements. For example, § 65.47(e) requires owners or operators of storage vessels using floating or external roofs to record when the roof was set on its legs and when it was refloated. This is a new record not previously required under any referencing storage vessel rule. As another example, § 65.44(c)(9)(ii) allows up to two 30-day extensions (after an initial 45 days) to empty and remove a storage vessel from service after the source finds that it is unsafe to perform gap seal measurements. Under subpart Kb of 40 CFR part 60 and subpart Y of 40 CFR part 61, the source was allowed one 30 day extension, which required prior approval [§ 60.113b(b)(4)(iii) and § 61.272(b)(4)(iii)]; extensions were not addressed under subpart Ka of 40 CFR part 60. Under the CAR (as in the HON), both the first and second 30-day extensions are available to the source without requesting prior approval by EPA; although documentation for why an extension is necessary must be maintained. Other examples include § 65.48(c)(2)(ii), which requires reporting of storage vessel seal gap measurement results, rather than all raw seal gap measurement data as required in subpart Kb of 40 CFR part 60, subpart Y of 40 CFR part 61, and subpart G of 40 CFR part 63 [§ 60.115b(b)(2), § 61.276(d)(1), and § 63.122(e)(1)]; or § 65.161(a)(3), which requires keeping records of the latest 3 hours of continuous (15-minute) monitoring data, rather than keeping records of all continuous monitoring data, as under the HON, see § 63.152(f)(2).

The examples given so far illustrate changes in which the source is adopting the CAR requirements in lieu of previous requirements, without changing or adding to the CAR requirements. Other requirements under the CAR, still within the first category, may require a source to determine monitoring requirements. For example, under § 65.148(c)(1), a facility using an incinerator to meet the 98 percent reduction requirement of § 65.63(a)(2) of subpart D for process vents, is required to monitor temperature within a range of temperature determined by the source. The source may establish, as part of its title V application, the parameter range that it will use, based on a performance test, or it may rely on prior performance tests or use an existing range or an established limit in a referenced subpart. In EPA's view, a change in a parameter range based on a relevant EPA-approved performance test is not a significant change, since the range is determined by the results of the test and cannot be set arbitrarily. In addition, the parameter to be monitored is set by the CAR, and is therefore outside the source's discretion.

Thus, EPA does not consider this first category of changes to be ''significant changes'' within the meaning of criterion (2) for minor permit revisions. The EPA interprets the criterion as requiring the significant permit revision process when a significant monitoring change is made in the permit revision process, and especially when the changes are source-specific monitoring changes involving significant judgment. The types of changes to monitoring requirements that EPA considers significant within the meaning of

criterion (2) include establishing equivalent SIP monitoring requirements, streamlining of redundant monitoring requirements, or significant changes to source-specific monitoring. The first category of CAR requirements should not have these characteristics, since the amount of judgment involved in establishing source-specific requirements such as parameter levels is not significant. There is also no requirement to demonstrate that these requirements are equivalent to existing requirements, as would be the case when establishing equivalent SIP requirements or streamlining.

The second category of changes involves significant discretion on the part of the source in determining monitoring, recordkeeping or reporting requirements. For example, under § 65.63(d) of subpart D, which applies to a group 2A process vent without a recovery device, a source is allowed to establish the parameters that it will monitor, and the parameter ranges, in order to maintain a TRE index value greater than 1.0. Another example is under § 65.162(e) of subpart G, which applies to sources who are directed under § 65.154(c)(2) or § 65.155(c)(1) to set unique monitoring parameters, or who request under § 65.156(e) approval to monitor a different parameter than those listed in relevant monitoring requirements of subpart G of the CAR.

If this second type of change were established for the first time through the permit revision process, EPA would consider it to be a significant change in monitoring under the meaning of criterion (2) of § 70.7(e)(2)(i)(A), since the source has significant discretion in establishing not only the parameter to be monitored, but the methods that are used in making that judgment. Establishing these kinds of monitoring requirements in the permit is similar to permit streamlining, equivalent SIP requirements, and other changes that involve significant judgment discussed above. In White Paper #2, EPA indicated that streamlining could be accomplished as part of the initial permit application or as a significant permit revision, both of which provide for EPA review of streamlined requirements. The current part 70 requires that equivalent SIP limits established in the permit must follow initial issuance, renewal, or significant permit revision procedures [See § 70.6(a)(1)(iii)].

If, however, EPA has approved unique or different monitoring requirements prior to the permit revision taking place, as may be the case under the CAR, EPA would consider the significant permit revision procedure to be unnecessary. For example, if EPA has approved a request to use alternative monitoring or recordkeeping procedures under § 65.7(b) and (c) of subpart A or § 65.162(d) of subpart G procedures, the source has no discretion but to comply with those alternative requirements once the Agency has granted approval. Consequently, the absence of discretion justifies the minor permit revision process, rather than the significant permit revision procedures.

Note that under the proposed changes to part 70 (60 FR 45529, August 31, 1995), incorporation of new requirements such as the CAR may be allowed under the proposed ''notice-only'' provisions, in which EPA and public review is not required, if the permit is incorporating previously-adopted requirements and if source-specific requirements are not being established through the permit. Incorporation either of provisions adopted in the CAR rule, or of source-specific requirements proposed by the source and approved by EPA after promulgation of today's rule (provided the permit process was not the vehicle for EPA approval) would likely be eligible for notice-only procedures under the concept outlined in the 1995 proposal. If EPA adopts the notice-only procedures, the procedures would be available once the State in which the source is located had incorporated the revised procedure into its permit program. Until then, the current part 70 permit procedures apply as outlined above.

IX. Extension of the Consolidation to Include the State Implementation Plan

The EPA recognizes that States have developed and incorporated into the State Implementation Plan (SIP) rules and requirements that affect many of the same emission units also subject to the referencing subparts being consolidated in today's proposal. Those regulations typically include reasonably available control technology (RACT) and other requirements designed for attainment and maintenance of national ambient air quality standards (NAAQS). Hence, even upon final promulgation of the CAR, in many areas SOCMI sources implementing the CAR still could remain subject to two separate sets of requirements—the CAR and State and federally-enforceable RACT requirements. Reduction of compliance burdens through consolidation of regulatory requirements could be greatly enhanced by expanding the benefits of today's proposal to address federally enforceable SIP requirements that apply to SOCMI sources.

In an effort to facilitate burden reduction for sources subject to state specific SIP requirements, EPA is proposing three actions. First, EPA is proposing to pre-approve the CAR as meeting the RACT requirement of the Act. Thus, with respect to SIPs that expressly allow for the approval of alternatives to existing RACT requirements by the State and EPA, additional EPA action will not be needed prior to implementation of the CAR by a specific source. The source will still need State approval of the CAR for that source prior to implementation. This pre-approval, discussed further below, would expedite the consolidation of the RACT requirement with other applicable requirements through implementation of the CAR since no additional EPA action would be necessary prior to implementation of the CAR. Second, based on EPA's proposal to pre-approve the CAR as meeting RACT, EPA is proposing a streamlined process for review and approval of SIP submittals that incorporate the CAR requirements. This action will expedite the process for incorporating into the SIP the CAR for purposes of complying with RACT requirements, particularly in states where the SIP does not already allow for the use of approved alternatives. Finally, EPA is recognizing the use of the title V permitting process as a mechanism through which the streamlining of overlapping requirements stemming from the SIP, NSPS, and NESHAP programs can be accomplished. Below, each of these mechanisms for expanding the benefits of the CAR rulemaking to encompass SIP requirements is discussed. First, however, a description of RACT and EPA's basis for pre-approving the CAR as RACT is provided.

A. Pre-Approval of the CAR as Meeting the Clean Air Act Reasonably Available Control Technology Requirement

For purposes of defining RACT, EPA has historically issued control techniques guidelines (CTGs). These CTGs are not regulatory in nature, but rather establish a presumptive norm for RACT. In other words, the CTGs, which are issued after an opportunity for public input, establish one or more methods of control or emission reduction levels that EPA deems as RACT-level control for certain operations. In developing the CTGs, EPA provides the scientific and technical documentation to support these controls as a RACT level of control. In developing RACT rules to be incorporated into a federally-approved SIP, a State can adopt the methods of

control specified in the CTG or establish other methods of control. To the extent the State relies on the control methods specified in the CTG, EPA will not undertake further analysis in determining that the State has established RACT-level of control for those sources. However, if a State elects to require other types of control, the State must provide the relevant scientific and technical information to demonstrate that the selected controls meet the underlying statutory RACT requirement.

Currently, EPA has issued six CTGs, shown in table 4, applicable to emission points at sources covered by the CAR. Pursuant to section 182(b)(2)(B) of the Act, States were required to submit RACT rules by November 15, 1992 for emission sources whose CTGs were issued prior to the 1990 Clean Air Act Amendments. Therefore, RACT rules for petroleum liquids in fixed roof and external floating roof tanks; manufacture of high-density polyethylene, polypropylene, and polystyrene resins; SOCMI and polymer manufacturing equipment leaks; and SOCMI air oxidation processes were due by November 15, 1992. For emission sources covered by CTG's issued after the 1990 Amendments, the EPA was required to establish a submittal date, pursuant to section 182(b)(2)(A) of the Act. The RACT rules for SOCMI distillation and reactor processes were required to be submitted by March 23, 1995, as stated in the **Federal Register** notice (59 FR 13717, March 23, 1994) announcing the submittal due date.

TABLE 4.—CONTROL TECHNIQUES GUIDELINES

Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks, EPA–450/2–77–036, December 1977.
Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks, EPA–450/2–78–047, December 1978.
Control of Volatile Organic Compound emissions from Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins, EPA–450/3–83–008, November 1983.
Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment, EPA–450/3–83–006, March 1984.
Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry, EPA–450/3–84–015, December 1984.
Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations Processes in the Synthetic Organic Chemical Manufacturing Industry, EPA–450/4–91–031, August 1993.

After State adoption, control measures are submitted to EPA for approval into the federally-enforceable SIP. Hence, once a State-enforceable measure is approved into the SIP, it becomes enforceable as a federal requirement.

In order to establish that provisions in the CAR are at least as stringent as RACT, it is necessary to understand the basis for RACT and the standards that constitute the CAR. The general requirement for RACT in nonattainment areas is found in section 172(c)(1) of the Act. Section 182 (a)(2)(A) and (b)(2) provide more specific requirements for stationary sources that emit volatile organic compound (VOC). The EPA has defined RACT as ''. . . the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility'' (44 FR 53761, September 17, 1979). These are control techniques that are widely used that can be readily applied to existing sources without unreasonable burden.

The ''reasonably'' available control technology reflected in SIP levels can be contrasted with the generally more stringent bases for the new source performance standards (NSPS) and national emission standards for hazardous air pollutants (NESHAP) which comprise the CAR. The NSPS, which apply to newly constructed stationary sources that emit criteria pollutants, are based on ''. . . the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated,'' (CAA section 111(a)(1)) or best demonstrated technology (BDT). This presumably (but not necessarily) higher level of control than RACT (which generally is developed for existing sources) can be justified for new, modified, or reconstructed sources, because such controls can be incorporated into the design of the source prior to construction, modification, or reconstruction, making it more technically and economically feasible than for existing sources that can have prohibitive design constraints or costs.

Prior to the 1990 Amendments, for NESHAP, the Act required the Administrator to ''. . . establish any such standard at the level which in his judgment provides an ample margin of safety to protect the public health from such hazardous air pollutant.'' 42 U.S.C. 7412(b)(1)(B). Although EPA policy has evolved over the years regarding the interpretation of this wording, it was generally accepted that the basis for the standards established would reflect at least the basis analogous to that established for NSPS, i.e. ''best controls'' considering the impacts.

The Act, as amended in 1990, provides that NESHAP must ''. . . require the maximum degree of reduction in emissions . . . that the Administrator, taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impacts and energy requirements, determines is achievable . . .'', or maximum achievable control technology (MACT), for short. The Act 112(d)(2). This basis is very similar to that for NSPS, as is evidenced by the statutory wording, and again generally reflects control at least as stringent as, if not more than, RACT.

The statutory language for setting NSPS and NESHAP clearly mandate a basis for those standards no less stringent, and conceivably more stringent, than that for RACT. An examination of the CTGs that apply to SOCMI reveal that the NSPS and NESHAP that form the basis for today's proposed CAR are all at least as stringent as the corresponding RACT requirements contained in the CTG's, especially since most of the CAR is based on the HON, which is the NESHAP applicable to the SOCMI.

In addition to the appropriate stringency qualifications, the CAR will be established through regulation, thus it is appropriate to augment the CTG's, which were issued after public notice and comment, with the CAR. Therefore, since EPA believes that the CAR is at least as stringent as the RACT established in the CTG and since this action fulfills the procedural requirements for establishing RACT, EPA is proposing to pre-approve the CAR as RACT.

B. EPA Approval of the CAR as an Alternative Compliance Measure for the State Implementation Plan

The EPA is aware that some State SIPs provide for the use of alternative emission limitations, control technologies, or monitoring methods for purposes of complying with the applicable SIP requirement. Use of such alternatives generally requires the prior approval of both EPA and the State to ensure that the alternative is equivalent to the method currently approved into the SIP. The EPA is proposing, based on its pre-approval of the CAR as meeting RACT, that where a SIP allows sources to adopt alternative means of control after approval by the State and EPA, no additional EPA approval will be required prior to the source implementing the CAR. In other words, EPA is proposing that a determination in the final CAR rule that the CAR is RACT for the relevant sources, will fulfill the EPA approval requirement in SIPs for adoption of alternative means of complying with a SIP-approved RACT requirement.[1] Therefore, if—in accordance with an alternative measures provision in an approved SIP—a source applied to a State, seeking to implement the CAR rather than the current SIP-approved RACT measures, the State could approve the use of the CAR as an alternative means of compliance and further EPA approval would not be necessary for the source to implement the CAR. In these cases—where the SIP expressly provides for the approval of alternative measures—this pre-approval should provide an expedited mechanism for using the CAR to consolidate SIP and Federal emission standards.

However, through this proposed action, EPA is not and cannot revise any specific SIP to include the CAR. Where a SIP allows approval of alternative means of compliance, the source must still receive State approval, consistent with the terms in the SIP, in order to use the CAR as an alternative means of compliance. Independent State approval is necessary because the State has retained the authority to determine whether alternative means of control meet the State-adopted RACT requirements. States have the authority under section 116 of the Clean Air Act to establish controls that exceed RACT. Therefore, although EPA is proposing that the CAR is at least equivalent to the presumptive RACT requirement in the existing CTGs, the State must have the opportunity to determine whether the CAR is an appropriate alternative to the measures that were adopted by the State and approved into the SIP. This determination is critical since a State may have adopted tighter means of control for purposes of attaining the NAAQS or meeting some other applicable requirement of the CAA (for example, 15 percent VOC reduction requirement).

For cases in which the SIP requirements are more stringent than the CAR as it would apply to specific sources, EPA recognizes that use of the CAR as an alternative to the SIP may jeopardize achievement or maintenance of the NAAQS. In those cases, EPA expects that the State would disapprove use of the CAR as an alternative means of compliance with the SIP.

In determining whether the CAR can be used as an alternative to the SIP, the State must consider whether the CAR requires control to an equal or higher degree than the emission limitations of the SIP. Because EPA, through this rulemaking, is establishing the compliance measures (monitoring, recordkeeping, and reporting) which correspond to a particular control option as sufficient to assure compliance with the presumptive RACT emission limitation, EPA believes that it will not be necessary for a State to compare the particular compliance measures of the SIP to the CAR in order to approve the CAR as an alternative if the State has adopted the presumptive measures that were provided in the CTG. Rather, the State may choose to restrict its review to the sufficiency of the control measures and emission limitations in the CAR, in order to provide for greater use of the burden reductions inherent in the compliance measures of today's proposed CAR.

The EPA believes that there will be few, if any, instances in which the CAR would serve to relax a previously applicable SIP requirement. However, since there may be limited cases where that could occur, EPA is seeking comment on whether a more rigorous SIP review process should be required in those few instances. Therefore, EPA is seeking comment on whether the State should be required to submit through the formal SIP revision process any state approval of the CAR where the CAR provides for fewer emission reductions than the previously-approved SIP.

Although a source may implement the CAR upon State approval, EPA is also proposing that the State subsequently submit the CAR for official incorporation into the SIP. The EPA is proposing that the State could make this submission through letter notice.[2] This process will serve to ensure that the applicable control requirement, i.e., the CAR, is reflected in the SIP. Without this process, the SIP would continue to indicate that the source was subject to the previously approved RACT limit. The letter notice will ensure that EPA is informed about the applicable SIP requirements for sources and will allow the Agency to fulfill its obligation to provide that information to the public (See for example The Act 110(h), 42 USC 7410(h)).

Since, at this point the incorporation of the CAR into the SIP will merely be a technical revision, EPA believes that letter notice is an acceptable procedure. Under the letter notice procedures, the State submits the revision by letter to EPA upon State approval of the CAR for a specific source or group of sources. The EPA would not need to undertake a lengthy notice-and-comment rulemaking process to incorporate the revision into the SIP. Rather, the regional office would notify the State and the source by letter that the SIP was being revised to reflect the submission. Periodically, each EPA Regional office would publish a notice in the **Federal Register** to notify the public of the SIP revisions that had been made. Furthermore, at that time, EPA would ensure that the federally-approved SIP reflected the CAR as the alternative means of compliance for the relevant source(s).

The EPA seeks comment on the validity and usefulness of this approach to extend consolidation of regulatory requirements to include SIP requirements.

C. Expedited State Implementation Plan Approvals for Incorporation of the CAR as a Reasonably Available Control Technology Compliance Option

In many cases the SIP explicitly provides an exclusive means of compliance with RACT. This exclusivity would preclude the use of the process proposed above since the SIP does not allow for an alternative means of compliance. In such cases, the State may utilize other options to address overlapping requirements between the SIP, NSPS, and NESHAP programs. One approach which the State could take would be to revise the regulations which form the basis of the SIP, either to include boilerplate

[1] EPA's pre-approval only applies if the State is approving the CAR as federally-promulgated. If the State wishes to approve an alternative that differs from the approved federal CAR, these streamlined procedures would not apply. Rather a full SIP revision request would be needed. However, as noted in section C., below, EPA might be able to use the direct final process in processing some SIP revisions.

[2] For further information on the letter notice process, see 55 FR 5829, February 16, 1990.

provisions for approved alternatives or to explicitly incorporate the CAR as a means of complying with RACT. EPA is proposing the use of measures described below in order to ensure that this SIP revision process would work quickly and effectively so that the CAR may be utilized as quickly as possible as a compliance tool.

Because EPA is proposing to determine through this action that the CAR is at least equivalent to presumptive RACT, EPA believes that there will be little need for public comment on a case-by-case basis as SIPs are revised to incorporate the federally-enacted CAR as an alternative means of compliance. However, it will be necessary for some States to revise their SIPs to include the CAR for this purpose. Therefore, such States would need to submit the CAR to EPA as a SIP revision. For States that submit the CAR, as finalized in the federal rules, EPA is proposing to use letter notice procedures to revise the SIP to incorporate the CAR. (Again, EPA seeks comment on whether a different process should be used where the CAR would relax the previously-approved SIP requirement.) However, if a State submits a rule that differs from that established through the final federal rulemaking on the CAR, EPA would need to undertake notice-and-comment rulemaking procedures in order to provide an opportunity for public participation.

Although EPA believes notice-and-comment rulemaking would be needed if the State-adopted rule differs from the federally-enacted CAR, in some instances, EPA might be able to utilize the existing ''direct final'' method of rulemaking in order to significantly expedite the rulemaking process. Under such a procedure, EPA publishes a proposed and final action simultaneously indicating that if no adverse comments are received, the final action will be effective 60 days following publication. If adverse comments are received, EPA will withdraw the final action, address the comments and subsequently publish a new final action in light of the comments received.[3]

D. Streamlining of Overlapping State Implementation Plan, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants Requirements in the Title V Permitting Process

In addition to undertaking rulemaking to revise the SIP, or as an option to that approach, the State may wish to take advantage of the title V permitting process as a mechanism for addressing overlapping requirements. The process by which this may be accomplished is discussed in detail in EPA guidance entitled, ''White Paper Number 2 For Improved Title V Implementation,'' issued on March 5, 1996.

The White Paper Number 2 describes how a source may propose streamlining to distill or ''streamline'' multiple overlapping requirements into one set that will assure compliance with all requirements. According to the guidance, multiple emissions limits applying to an emission unit may be streamlined into one limit if that limit is at least as stringent as the most stringent limit. If no one requirement is clearly more stringent than the others, the applicant may synthesize the conditions of all the applicable requirements into a single new permit term that will assure compliance with all requirements. The streamlined monitoring, recordkeeping, and reporting requirements would generally be those associated with the most stringent emissions limit, providing they would assure compliance to the same extent as any subsumed monitoring. Thus, monitoring, recordkeeping, or reporting to determine compliance with subsumed limits would not be required where the source implements the streamlined approach.

It is important to emphasize that while streamlining may be initiated by either the applicant or the permitting authority, it can only be implemented where the permit applicant consents to its use.

X. Summary of Benefits and Other Impacts

The CAR contains a number of significant benefits to all parties; in fact, regulatory improvement benefitting all is the main purpose of the CAR, as described earlier in the discussion on goals and objectives. Many of the same benefits and features of the CAR help all the parties equally, while some are more beneficial to others. The benefits and improvements of the CAR are individually discussed in detail in section VI of this preamble. The most significant benefits afforded by the CAR include:

- Requirements in 3 different parts and 16 different subparts have been brought together into 1 set of requirements in a single part;
- Structure of the rule is designed with the ''end-user'' in mind;
- Monitoring requirements for equipment leaks have been greatly reduced and simplified; and
- Data handling burden has been greatly reduced due to requirements to keep only the most recent 3 hours of CPMS monitoring data.

The recordkeeping and reporting burden associated with the CAR reflects a substantial reduction in burden hours as compared to the referencing subparts. EPA has assessed the recordkeeping and reporting burden for the CAR and estimates a net reduction in burden of about 1700 hours per year for a representative chemical plant with 3 process units opting to use the CAR. Burden reduction is a function of the size and complexity of a plant site and will therefore vary for individual plant sites.

In addition, it is expected that the CAR will provide improved compliance and resource savings. By having a clearer, simpler, smaller, consistent set of rules, both industry and enforcement agencies will know better what is expected, and can concentrate on implementing and complying with the requirements instead of trying to understand provisions of several different rules. Because the rules can be much more easily implemented, there will be better compliance. By the same token, when the regulations are more easily implemented, with resulting better compliance, there will be less enforcement action and litigation, saving resources of both enforcement agencies and industry.

XI. Additional Amendments to Equipment Leak Referencing Subparts

Today's action includes some additional amendments to 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V that are not necessitated by proposal of the CAR. Rather, these amendments are being proposed in order to clarify some specific provisions and to incorporate some provisions for safety consistent with the HON equipment leak provisions that have been amended several times in recent years. Today's proposed amendments would incorporate these same improvements into 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V. The rationale for all of the proposed amendments remains the same as it was for amending the HON. Discussion of these HON amendments is found in preambles to the proposed amendments (59 FR 48175, September 20, 1994; 60 FR 18020, April 10, 1995; 61 FR 31435, June 20, 1996; and 62 FR 2721, January 17, 1997). The proposed amendments to 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V consist of the following changes.

[3] For further information on the direct final process, see 59 FR 24054, May 10, 1994.

A. Closed-vent Systems and Control Devices

The language in 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V defining CVS would be changed from ''systems * * * composed of piping'' to ''systems * * * composed of hard-piping [or] ductwork.'' Definitions of ''hard-piping'' and ''ductwork,'' taken from the HON, would be added to both 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V to accommodate the amended definition of CVS. Definitions distinguishing between hard-piping and ductwork allow for a distinction to be made between the applicable inspection requirements.

The inspection requirements for CVS hard-piping and ductwork have been clarified in 40 CFR part 61, subpart V to be consistent with 40 CFR part 60, subpart VV and the HON. Closed-vent system ductwork must be inspected initially and annually thereafter using Test Method 21; CVS hard-piping must be inspected initially using Test Method 21, and then visually inspected annually thereafter. Prior to these amendments, there was no clear distinction made in 40 CFR part 61, subpart V between ductwork and hard-piping inspection requirements, and all conveyance systems had to be inspected annually using Method 21. However, EPA recognizes that systems constructed of hard-piping are extremely unlikely to leak, and therefore, annual Method 21 inspections are unnecessary for hard-piping. Further discussion about the inspection requirements for CVS ductwork versus CVS hard-piping is included in the **Federal Register** notice proposing this amendment for 40 CFR part 60, subpart VV (59 FR 36155, July 15, 1994) and in the **Federal Register** notice issuing the final HON (59 FR 19447, April 22, 1994).

The definitions of CVS in 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V would also be modified for consistency with the HON to include systems that are routed back to a process. Similarly, provisions in both subparts that require a control device for pumps, compressors, or pressure relief devices would be amended to allow routing to a fuel gas system or routing back to a process in lieu of routing through a CVS to a control device.

B. Sampling Connection Systems

The HON provisions on the treatment of purge material would be added to 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V. The added provisions would allow three additional control options for purge materials. These options include: (1) sending purge material to a hazardous waste treatment, storage, and disposal facility (TSDF), if it contains hazardous waste; (2) sending purge material to a facility permitted by a State to handle municipal or industrial solid waste, if it is not hazardous waste; or (3) sending the purge material to a waste management unit that is complying with the group 1 wastewater provisions of 40 CFR part 63, subpart G.

When EPA amended the HON with these three additional control options, the option to send purge material to a waste management unit that is complying with the HON Group 1 wastewater provisions included an exemption for streams that do not contain any organic HAP listed on table 9 of 40 CFR part 63, subpart G. This exemption is not included in the proposed amendments for 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V. These two subparts address VOC, and benzene and vinyl chloride, respectively.

Table 9 was created to help define organic HAP of regulatory concern for the HON wastewater provisions. It therefore does not serve as an appropriate basis for exemption from VOC controls under 40 CFR part 60, subpart VV. Many regulated VOC are not HAP, and they have never been assessed for inclusion in table 9. No satisfactory substitute for table 9 exists for VOC. Moreover, table 9 is not an appropriate basis for exemption under 40 CFR part 61, subpart V because subpart V applies to streams containing benzene or vinyl chloride, and table 9 lists both of these compounds.

The EPA is not including the exemption because the circumstances associated with purge material in wastewater streams are not the same in these cases as were present with the HON amendment. For more discussion on how table 9 was developed see the Hazardous Air Pollutant Emissions from Process Units in the Synthetic Organic Chemical Manufacturing Industry—Background Information for Final Standards, Volume 2B: Comments on Wastewater (EPA–453/R–94–003b) section 3.2 The control options allowed in the proposed amendment meet the intent of the sampling connection system provisions, which is to ensure that purged material is captured and either returned to a process or destroyed, and offers additional compliance flexibility.

The HON definition of ''sampling connection systems'' would also be added to 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V. Prior to this proposed amendment, neither subpart included a definition of this term. The addition would be made for clarity and would not effect the requirements in either subpart.

C. Standards for Control Devices and Recovery Systems

Provisions for recovery devices and enclosed combustion devices in 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V would be amended to allow an exit concentration of 20 parts per million by volume (ppmv) as an alternative to the 95 percent control efficiency requirement. The 20 ppmv alternative standard was added to the HON provisions (61 FR 43698, August 26, 1996). The use of this option is provided for cases where there would be large amounts of dilution air, such as enclosed vented processes. The EPA considers the 20 ppmv alternative standards to be a reasonable design concentration for circumstances covered by these two subparts. For low concentration streams, it is difficult to obtain the 95 percent removal that is required. A 20 ppmv outlet concentration is obtainable for these streams. In addition, EPA reiterates that this proposed alternative standard will be allowed only in the cases where circumvention by dilution can reasonably be detected.

D. Safety Considerations

Several amendments made to the HON equipment leak provisions for safety reasons (60 FR 18073, April 10, 1995) are being proposed for 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V. These amendments are being proposed for safety reasons and for consistency among equipment leak rules; they would exempt equipment from particular requirements (for example, inspections) if the required activity may pose a safety hazard. Use of these proposed exemptions will be strictly limited to equipment for which a real need could be reasonably argued.

Pumps would be exempt from monthly monitoring and weekly visual inspection requirements if such monitoring or inspection is unsafe. The owner or operator must maintain a written plan for monitoring and inspecting these pumps as frequently as possible under safe conditions. The associated recordkeeping requirements for inspection and monitoring would be amended accordingly.

Pressure relief devices equipped with a rupture disc upstream of the pressure relief device would be exempt from the requirement to operate with no detectable emissions. Owners and operators would have to replace these rupture discs as soon as is practical and

no later than 5 days after each pressure release.

Open-ended valves and lines would be exempt from the requirement to be closed or sealed if they are part of an emergency shutdown system, or if the open-ended valve or line contains material that would autocatalytically polymerize or cause a safety hazard if capped or sealed.

Any parts of a closed-vent system that are designated by the owner or operator as unsafe to inspect would be exempt from requirements for initial and annual inspection and monitoring. The owner or operator would have to maintain records of equipment so designated and a written plan for inspecting this equipment as often as possible under safe conditions.

Parts of a CVS that cannot be inspected without elevating the inspector more than 2 meters above a support surface could be designated difficult to inspect and thereby exempt from inspection and monitoring requirements. Equipment designated difficult to inspect must be part of a modified or reconstructed process unit or the owner or operator must designate no more than 3 percent of the CVS equipment difficult to inspect. Additionally, the owner or operator must maintain a written plan for inspecting the equipment at least every 5 years.

XII. Solicitation of Specific Comments

The Administrator solicits comments on all aspects of this proposal. Comments on specific technical features of the rule are solicited in section VI of this preamble as each topic is discussed. These technical features include:

- The introduction of halogen scrubbers for NSPS process vents;
- The validity and usefulness of the CAR's implementation mechanism;
- The EPA's proposed policy for delegation to States; and
- The CAR's provisions requiring correction to 3 percent oxygen for all combustion device concentration measurements.

The Administrator specifically requests comments on the usefulness of incorporating two features into the rule. First, should tables citing the provisions of the referencing subparts that still apply to owners and operators complying with the CAR be added to the CAR? And second, should a subgrouping program similar to that established for valve equipment leak monitoring [see § 65.106(b)(4)] be created for connector equipment leak monitoring?

In this section, the Administrator is also specifically requesting comments on the overall effectiveness of the proposed rule. Commenters should provide any available data and rationale to support their comments on each topic.

The Administrator specifically requests comments on how well the proposed rule meets the President's objectives of rule consolidation. The stated goal of the rule is articulated in the March 16, 1995 White House papers entitled, ''Reinventing Environmental Regulation,'' as follows:

> EPA will work with key industries, beginning with the chemical industry, to eliminate conflicting and overlapping Federal air compliance requirements. Deleting duplicative and confusing requirements will result in increased understanding by industry about emission limits and monitoring, recordkeeping and reporting requirements, and will reduce compliance costs—with no measurable loss of environmental protection. Subsequently, consolidation for other media will be undertaken, based on experience gained with air rules.

The successes of this pilot project for the chemical industry should be measured against the 10 principles for reinventing environmental regulation, which were listed in the President's March 16 policy, as follows:

> 1. Protecting public health and the environment are important national goals, and individuals, businesses and government must take responsibility for the impact of their actions.
>
> 2. Regulation must be designed to achieve environmental goals in a manner that minimizes costs to individuals, businesses, and other levels of government.
>
> 3. Environmental regulations must be performance-based, providing maximum flexibility in the means of achieving our environmental goals, but requiring accountability for the results.
>
> 4. Preventing pollution, not just controlling or cleaning it up, is preferred.
>
> 5. Market incentives should be used to achieve environmental goals, whenever appropriate.
>
> 6. Environmental regulation should be based on the best science and economies, subject to expert and public scrutiny, and grounded in values Americans share.
>
> 7. Government regulations must be understandable to those who are affected by them.
>
> 8. Decision making should be collaborative, not adversarial, and decision makers must inform and involve those who must live with the decisions.
>
> 9. Federal, State, tribal and local governments must work as partners to achieve common environmental goals, with non-Federal partners taking the lead when appropriate.
>
> 10. No citizen should be subjected to unjust or disproportionate environmental impacts.

The CAR addresses several of these principles (numbers 1, 2, 3, 6, 7, 8, and 9). Comments are requested on the following topics to evaluate how well the CAR embraces these principles and to identify specific changes that could be made to improve the benefits of consolidation.

- One intent of the CAR is to provide an end-user friendly structure to regulatory requirements. Would you want to see this structure repeated in future rulemakings? What could have been done better?
- One intent of the CAR is to update, clarify, and eliminate ambiguity in the regulatory requirements. Was this goal accomplished? What specific improvements could be made?
- One intent of the CAR is to provide for improved environmental results by clarifying and simplifying the set of regulations. Do you believe that the proposed rule will improve the level of compliance?
- One intent of the CAR is to reduce the overall regulatory compliance burden. The goal was to achieve burden reduction for all parties: EPA, the states, the public, and the regulated community. Will the proposed rule reduce burden? What further improvements can be made?
- One intent of the CAR is to have a single, consolidated set of requirements for the SOCMI Industry. Is the proposed single rule an improvement?
- One intent of the CAR is to reduce the amount of regulatory information that stakeholders must review to determine regulatory requirements in the SOCMI Industry. Has this goal been met?
- One intent of the CAR is to reduce the complexities of overlapping regulations among different Federal air programs. How well has this goal been met? What improvements could be made?
- One intent of the CAR is to provide a linear logic in proceeding through the regulatory requirements; i.e., start at the beginning of a rule and work your way as far into the regulation as is appropriate for the emission point. For example, if a section of the regulation does not apply to the emissions unit then everything necessary for achieving compliance should be identified at that regulation location and with no need to go deeper into the regulation to make sure that there is not an imbedded requirement (for example, a reporting requirement located near the end of a rule related to an exemption contained in an earlier section). How well was this goal met?
- The CAR constitutes a substantial re-organization of massive amounts of regulatory information. Underlying regulatory intent was intended to be

retained except where noted in this preamble. Has the reorganization of the information implied a change in substantive requirements or compliance expectations that has not been explicitly identified?

- The CAR is optional at the choice of the SOCMI owner/operator as an alternative compliance program for existing rules. Are the requirements for opting into CAR compliance and opting out of CAR compliance clear?

XIII. Administrative Requirements

A. Public Hearing

A public hearing will be held, if requested, to provide opportunity for interested persons to make oral presentations regarding the requirements in the proposed regulation in accordance with section 307(d)(5) of the Act. Persons wishing to make oral presentation on the proposed regulation should contact EPA at the address given in the **ADDRESSES** section of this preamble. Oral presentations will be limited to 15 minutes each. Any member of the public may file a written statement before, during, or within 30 days after the hearing. Written statements should be addressed to the Air and Radiation Docket and Information Center at the address given in the **ADDRESSES** section of this preamble and should refer to Docket No. A–96–01. A verbatim transcript of the hearing and written statements will be available for inspection and copying during normal business hours at the EPA's Air and Radiation Docket and Information Center in Washington, DC (see **ADDRESSES** section of the preamble).

B. Docket

The docket is an organized and complete file of all the information considered by EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process.

C. Paperwork Reduction Act

The information collection requirements in these proposed rules have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. An Information Collection Request (ICR) document has been prepared by the EPA (ICR No. 1854.01) and copies may be obtained from Sandy Farmer, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M Street, S.W.; Washington, DC 20460 or by calling (202) 260–2740.

Information is required to ensure compliance with the provisions of the proposed rules. If the relevant information were collected less frequently, the EPA would not be reasonably assured that a source is in compliance with the proposed rules. In addition, the EPA's authority to take administrative action would be reduced significantly.

The proposed rules would require that facility owners or operators retain records for a period of at least five years, which exceeds the three year retention period contained in the guidelines in 5 CFR 1320.6. The five year retention period is consistent with the provisions of the General Provisions of 40 CFR Part 63, and with the five year records retention requirement in the operating permit program under Title V of the CAA.

All information submitted to the EPA for which a claim of confidentiality is made will be safeguarded according to the EPA policies set forth in Title 40, Chapter 1, Part 2, Subpart B, Confidentiality of Business Information. See 40 CFR 2; 41 FR 36902, September 1, 1976; amended by 43 FR 3999, September 8, 1978; 43 FR 42251, September 28, 1978; and 44 FR 17674, March 23, 1979. Even where the EPA has determined that data received in response to an ICR is eligible for confidential treatment under 40 CFR Part 2, Subpart B, the EPA may nonetheless disclose the information if it is ''relevant in any proceeding'' under the statute [42 U.S.C. 7414(C); 40 CFR 2.301(g)]. The information collection complies with the Privacy Act of 1974 and Office of Management and Budget (OMB) Circular 108.

Information to be reported consists of emission data and other information that are not of a sensitive nature. No sensitive personal or proprietary data are being collected.

The estimated annual average hour burden for CAR is about 6,600 hours per respondent. The estimated annual average cost of this burden is about $255,000 for each of the estimated 100 (projected) respondents.

Reports are required on a semi-annual basis and as required, as in the case of startup, shutdown, and malfunction plans. 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 the EPA's regulations are listed in 40 CFR part 9 and 48 CFR Chapter 15.

Comments are requested on the EPA'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 ICRs to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M Street, S.W., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, N.W., Washington, DC 20503, marked ''Attention: Desk Officer for EPA.'' Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR's between 30 and 60 days after October 28, 1998, a comment to OMB is best assured of having its full effect if OMB receives it by November 27, 1998. The final rules will respond to any OMB or public comments on the information collection requirements contained in this proposal.

D. Executive Order 12866

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

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

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

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

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

Pursuant to the terms of the Executive Order, EPA has determined that this rule is a ''significant regulatory action.'' Therefore, the proposed regulation presented in this notice was submitted to the OMB for review as required. Any written comments from the OMB to EPA and any written EPA response to those comments will be included in the Docket listed at the beginning of this notice in the **ADDRESSES** section of this preamble.

E. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601 *et seq.* (RFA), generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency contends 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 would not have a significant impact upon a substantial number of small entities because it is an optional compliance method and does not introduce any new requirements. Sources, including small entities, may choose to comply with the proposed rule if they determine that it would be beneficial to do so.

Therefore, I certify that this action will not have a significant economic impact on a substantial number of small entities.

F. Unfunded Mandates

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

The EPA has determined that these rules do not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate or the private sector in any one year. Thus, today's rules are not subject to the requirements of sections 202 and 205 of the UMRA.

The EPA has determined that these rules contain no regulatory requirements that might significantly or uniquely affect small governments. No small government entities have been identified that have involvement with these source categories and, as such, are not covered by the regulatory requirements of the proposed regulations.

G. Enhancing the Intergovernmental Partnership Under Executive Order 12875

In compliance with Executive Order 12875, EPA has involved States and local governments in the development of this rule. State and local air pollution control associations participated in the regulatory development and have provided regulatory review.

H. Clean Air Act

In accordance with section 117 of the Act, publication of this proposal was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies. This regulation will be reviewed 8 years from the date of promulgation. This review will include an assessment of such factors as evaluation of the residual health risks, any overlap with other programs, the existence of alternative methods, enforceability, improvements in emission control technology and health data, and the recordkeeping and reporting requirements.

I. National Technology Transfer and Advancement Act

Under section 12 of the National Technology Transfer and Advancement Act of 1995, the EPA must consider the use of ''voluntary consensus standards,'' if available and applicable, when implementing policies and programs, unless it would be ''inconsistent with applicable law or otherwise impractical.'' The intent of the National Technology Transfer and Advancement Act is to reduce the costs to the private and public sectors by requiring federal agencies to draw upon any existing, suitable technical standards used in commerce or industry.

A ''voluntary consensus standard'' is a technical standard developed or adopted by a legitimate standards-developing organization. The Act defines ''technical standards'' as ''performance-based or design-specific technical specifications and related management systems practices.'' A legitimate standards-developing organization must produce standards by consensus and observe principles of due process, openness, and balance of interests. Examples of organizations that are regarded as legitimate standards-developing organizations include the American Society for Testing and Materials (ASTM), International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), American Petroleum Institute (API), National Fire Protection Association (NFPA) and Society of Automotive Engineers (SAE).

The technical standards proposed with this notice are standards that have been proposed and promulgated under other rulemakings for similar source control applicability and compliance determinations. Since today's proposal does not involve the establishment or modification of technical standards, the requirements of the National Technology Transfer and Advancement Act do not apply.

J. Executive Order 13045

The 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 of children. If the regulatory action meets both criteria, the Agency must evaluate the environment 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.

K. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

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

40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Chemical manufacturing, Intergovernmental relations, Volatile organic compounds, Hazardous substances, Reporting and recordkeeping requirements, Incorporation by reference.

40 CFR Part 61

Environmental protection, Administrative practice and procedure, Air pollution control, Chemical manufacturing, Intergovernmental relations, Volatile organic compounds, Hazardous substances, Reporting and recordkeeping requirements, Incorporation by reference.

40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Chemical manufacturing, Intergovernmental relations, Volatile organic compounds, Hazardous substances, Reporting and recordkeeping requirements, Incorporation by reference.

40 CFR Part 65

Environmental protection, Administrative practice and procedure, Air pollution control, Chemical manufacturing, Intergovernmental relations, Volatile organic compounds, Hazardous substances, Reporting and recordkeeping requirements, Incorporation by reference.

Dated: September 28, 1998.

Carol M. Browner,

Administrator.

For the reasons cited in the preamble, the Environmental Protection Agency proposes to amend 40 CFR parts 60, 61, and 63 and to add 40 CFR part 65 as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401, 7411, 7413, 7414, 7416, 7601 and 7602.

Subpart Ka—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984

2. Section 60.110a is amended by revising paragraph (a), and adding paragraphs (c), (d), (e), and (f) to read as follows:

§ 60.110a Applicability and designation of affected facility.

(a) *Affected facility*. Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a storage capacity greater than 151,416 liters (40,000 gallons) that is used to store petroleum liquids for which construction is commenced after May 18, 1978.

* * * * *

(c) *Alternative means of compliance—SOCMI CAR unit basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart C to satisfy the requirements of §§ 60.112a through 60.114a, as provided in paragraphs (e) and (f) of this section, for all storage vessels that are subject to this subpart that store petroleum liquids that, as stored, have a maximum true vapor pressure equal to or greater than 10.3 kPa (1.5 psia), and that are part of a SOCMI CAR unit. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(d) *Alternative means of compliance—affected source basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart C to satisfy the requirements of §§ 60.112a through 60.114a, as provided in paragraphs (e) and (f) of this section, for any storage vessels that are subject to this subpart that store petroleum liquids that, as stored, have a maximum true vapor pressure equal to or greater than 10.3 kPa (1.5 psia), and that are not part of a SOCMI CAR unit, but are located at the same plant site as a SOCMI CAR unit that is complying with 40 CFR part 65. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(e) *Part 60 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, as provided in paragraph (c) or (d) of this section, must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.14, 60.15, 60.16, and 60.7 (a)(1) and (a)(4) of subpart A for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(f) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable

subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks) or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2 of subpart A.

3. Section 60.115a is amended by revising paragraph (d)(2) as follows:

§ 60.115a Monitoring of operations.

* * * * *

(d) * * *

(2) The owner or operator of each storage vessel equipped with a vapor recovery and return or disposal system in accordance with the requirements of § 60.112a(a)(3) and (b), or a closed vent system and control device meeting the specifications of 40 CFR 65.42(b)(4), (b)(5), (c)(1), or (c)(2).

Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

4. Section 60.110b is amended by adding paragraphs (e), (f), (g), (h), (i), and (j) as follows:

§ 60.110b Applicability and designation of affected facility.

* * * * *

(e) *Alternative means of compliance—SOCMI CAR unit basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart C to satisfy the requirements of §§ 60.112b through 60.117b, as provided in paragraphs (g), (h), (i) and (j) of this section, for all storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1) and (e)(2) of this section, and that are part of a SOCMI CAR unit. When choosing to comply with 40 CFR part 65, subpart C, as provided in paragraphs (g), (h), (i) and (j) of this section, the monitoring requirements of § 60.116b(c), (e), (f)(1), and (g) remain in effect. A SOCMI CAR unit is defined in 40 CFR 65.2, subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(1) A storage vessel with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa, or

(2) A storage vessel with a design capacity greater than 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(f) *Alternative means of compliance—affected source basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart C to satisfy the requirements of §§ 60.112b through 60.117b, as provided in paragraphs (g), (h), (i) and (j) of this section, for any storage vessels that are subject to this subpart, that meet the specifications in paragraphs (e)(1) and (e)(2) of this section, and that are not part of a SOCMI CAR unit, but are located at the same plant site as a SOCMI CAR unit that is complying with 40 CFR part 65. When choosing to comply with 40 CFR part 65, subpart C, as provided in paragraphs (g), (h), (i) and (j) of this section, the monitoring requirements of § 60.116b(c), (e), (f)(1), and (g) remain in effect. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(g) *Part 60 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, as provided in paragraphs (e) or (f) of this section, must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.14, 60.15, 60.16, and 60.7(a)(1) and (a)(4) of subpart A for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(h) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks) or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2 of subpart A.

(i) *Internal Floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with the CAR, as provided in paragraphs (e) or (f) of this section, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43 of subpart C. This report shall be an attachment to the notification required by 40 CFR 65.5(b) of subpart A.

(j) *External Floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with the CAR, as provided in paragraphs (e) or (f) of this section, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44 of subpart C. This report shall be an attachment to the notification required by 40 CFR 65.5(b) of subpart A.

5. Section 60.116b is amended by revising paragraph (g) as follows:

§ 60.116b Monitoring of operations.

* * * * *

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) of subpart C is exempt from the requirements of paragraphs (c) and (d) of this section.

Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

6. Section 60.480 is amended by adding paragraph (e) to read as follows:

§ 60.480 Applicability and designation of affected facility.

* * * * *

(e) *Alternative means of compliance.* Owners or operators of equipment that is subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart F to satisfy the requirements of §§ 60.482 through 60.487 of this subpart, as provided in paragraphs (e)(1) and (e)(2). When choosing to comply with 40 CFR part 65, subpart F, as provided in paragraphs (e)(1) and (e)(2), the requirements of §§ 60.482–1(a), 60.485(d), (e), and (f), and 60.486(i) and (j) apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(1) *Part 60 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.14, 60.15, 60.16, and 60.7(a)(1) and (a)(4) of subpart A of this part for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of

equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

(2) *Comply on a SOCMI unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks), or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2 of subpart A.

7. Section 60.481 is amended by revising the definition of ''closed vent system'' and adding in alphabetical order the definitions of ''duct work,'' ''hard-piping,'' and ''sampling connection system,'' to read as follows:

§ 60.481 Definitions.

* * * * *

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

* * * * *

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

* * * * *

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ANSI B31–3.

* * * * *

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

* * * * *

8. Section 60.482–1 is amended by revising paragraph (a) to read as follows:

§ 60.482–1 Standards: General.

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482–1 to 60.482–10 or 60.480(e) for all equipment within 180 days of initial startup.

* * * * *

9. Section 60.482–2 is amended by revising paragraphs (d)(1)(ii) and (f), and adding paragraphs (g) and (h) to read as follows:

§ 60.482–2 Standards: Pumps in light liquid service.

* * * * *

(d) * * *

(1) * * *

(ii) Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system connected by a closed vent system to a control device that complies with the requirements of § 60.482–10; or

* * * * *

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of § 60.482–10, it is exempt from the paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in § 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the requirements of paragraph (a) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and provided that each pump is visually inspected as often as practicable and at least monthly.

10. Section 60.482–3 is amended by revising paragraphs (b)(2) and (h) to read as follows:

§ 60.482–3 Standards: Compressors.

* * * * *

(b) * * *

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482–10; or

* * * * *

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of § 60.482–10, except as provided in paragraph (i) of this section.

* * * * *

11. Section 60.482–4 is amended by revising paragraph (c), and adding paragraph (d) to read as follows:

§ 60.482–4 Standards: Pressure relief devices in gas/vapor service.

* * * * *

(c) Any pressure relief device that is routed to a process or fuel gas system equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in § 60.482–10 is exempted from the requirements of paragraphs (a) and (b).

(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 60.482–9 of this subpart.

12. Section 60.482–5 is amended by adding paragraph (b)(4) to read as follows:

§ 60.482–5 Standards: Sampling connection systems.

* * * * *

(b) * * *

(4) Collect, store, and transport the purged process fluid to a system or facility identified in paragraph (b)(4)(i), (b)(4)(ii), or (b)(4)(iii) of this section.

(i) A waste management unit as defined in 40 CFR 63.111 of subpart G, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR part 63, subpart G applicable to Group 1 wastewater streams.

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if

the process fluids are not hazardous waste as defined in 40 CFR part 261.

* * * * *

13. Section 60.482–6 is amended by adding paragraphs (d) and (e) to read as follows:

§ 60.482–6 Standards: Open-ended valves or lines.

* * * * *

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

14. Section 60.482–10 is amended by revising paragraphs (b) and (c) to read as follows:

§ 60.482–10 Standards: Closed vent systems and control devices.

* * * * *

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

* * * * *

15. Section 60.486 is amended by revising paragraphs (f) introductory text and (f)(1) to read as follows:

§ 60.486 Recordkeeping requirements.

* * * * *

(f) The following information pertaining to all valves subject to the requirements of § 60.482–7 (g) and (h) and to all pumps subject to the requirements of § 60.482–2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

* * * * *

Subpart DDD—Standards of Performance for Volatile Organic Compound Emissions From the Polymer Manufacturing Industry

16. Section 60.560 is amended by adding paragraphs (j), (k), (l), and (m) to read as follows:

§ 60.560 Applicability and designation of affected facilities.

* * * * *

(j) *Alternative means of compliance—SOCMI CAR unit basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart G for continuous process vents that are subject to this subpart, that meet the specifications in § 60.562–1(a)(1)(i)(A), (a)(1)(i)(B), or (a)(1)(i)(C) where control is required as determined in § 60.562–1(a)(1)(ii) and (a)(1)(iii), and that are part of a SOCMI CAR unit. The requirements of 40 CFR part 65, subpart G satisfy the requirements of paragraph (c) of this section and §§ 60.563 through 60.566, except for 60.565(g)(1) and (l). A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(k) *Alternative means of compliance—affected source basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart G for continuous process vents that are subject to this subpart, that meet the specifications in § 60.562–1(a)(1)(i)(A), (a)(1)(i)(B), or (a)(1)(i)(C) where control is required as determined in § 60.562–1(a)(1)(ii) and (a)(1)(iii), and that are not part of a SOCMI CAR unit, but that are located at the same plant site as a SOCMI CAR unit that is complying with 40 CFR, part 65. The requirements of 40 CFR part 65, subpart G satisfy the requirements of paragraph (c) of this section and §§ 60.563 through 60.566, except for 60.565(g)(1) and (l). A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(l) *Part 60 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart G, as provided in paragraphs (j) or (k) of this section, must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.14, 60.15, and 60.16, and 60.7(a)(1) and (a)(4) of subpart A for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart G, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart G, must comply with 40 CFR part 65, subpart A.

(m) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks) or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2 of subpart A.

17. Section 60.565 is amended by revising paragraphs (g) introductory text and (l) to read as follows:

§ 60.565 Reporting and recordkeeping requirements.

* * * * *

(g) Each owner or operator of an affected facility subject to the provisions of this subpart and seeking to demonstrate compliance with § 60.560(j) or § 60.560(k) or § 60.562–1 shall keep up-to-date, readily accessible records of:

* * * * *

(l) Each owner or operator subject to the provisions of this subpart shall notify the Administrator of the specific provisions of §§ 60.562, 60.560(d), or 60.560(e), as applicable, with which the owner or operator has elected to comply. Notification shall be submitted with the notifications of initial startup required by § 60.7(a)(3) or 40 CFR 65.5(b) of subpart A. If an owner or operator elects at a later date to use an alternative provision of § 60.562 with which he or she will comply or becomes subject to § 60.562 for the first time [i.e., the owner or operator can no longer meet the requirements of this subpart by complying with the uncontrolled threshold emission rate cutoff provision in § 60.560(d) or (e)], then the owner or operator shall notify the Administrator 90 days before implementing a change and, upon implementing a change, a performance test shall be performed as specified in § 60.564 or 40 CFR part 65, subpart A.

* * * * *

Subpart III—Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes

18. Section 60.610 is amended by adding paragraphs (d) and (e) to read as follows:

§ 60.610 Applicability and designation of affected facility.

* * * * *

(d) *Alternative means of compliance.* Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D to satisfy the requirements of paragraph (c) of this section and §§ 60.612 through 60.615 of this subpart, except § 60.615(a), as provided in paragraphs (d)(1), (d)(2) and (e) of this section. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(1) *Part 60 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart D must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.14, 60.15, 60.16, and 60.7(a)(1) and (a)(4) of subpart A of this part for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart D, must comply with 40 CFR part 65, subpart A.

(2) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, transfer rack or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, transfer racks or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2 of subpart A.

(e) *Compliance date.* Owners or operators who choose to comply with 40 CFR part 65, subpart D at initial startup shall comply with paragraph (d) of this section for each vent stream on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first.

19. Section 60.615 is amended by revising paragraph (a) to read as follows:

§ 60.615 Reporting and recordkeeping requirements.

(a) Each owner or operator subject to § 60.612 or § 60.610(d) shall notify the Administrator of the specific provisions of § 60.612 [§ 60.612 (a), (b), or (c)] or 40 CFR 65.63 of subpart D [40 CFR 65.63 (a)(1), (a)(2), or (a)(3)] with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by § 60.7(a)(3) or 40 CFR 65.5(b) of subpart A as applicable. If an owner or operator elects at a later date to use an alternative provision of § 60.612 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by § 60.614 within 180 days.

* * * * *

Subpart NNN—Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations

20. Section 60.660 is amended by adding paragraphs (d) and (e) to read as follows:

§ 60.660 Applicability and designation of affected facility.

* * * * *

(d) *Alternative means of compliance.* Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D to satisfy the requirements of paragraph (c)(4) and (c)(6) of this section and §§ 60.662 through 60.665 of this subpart, except § 60.665(a), as provided in paragraphs (d)(1), (d)(2) and (e). Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(1) *Part 60 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart D must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.14, 60.15, 60.16, and 60.7 (a)(1) and (a)(4) of subpart A of this part for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart D, must comply with 40 CFR part 65, subpart A.

(2) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks), or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2 of subpart A.

(e) *Compliance date.* Owners or operators who choose to comply with 40 CFR part 65, subpart D, at initial startup shall comply with paragraph (d) of this section for each vent stream on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first.

21. Section 60.665 is amended by revising paragraphs (a) and (l)(6) to read as follows:

§ 60.665 Reporting and recordkeeping requirements.

(a) Each owner or operator subject to §§ 60.662 or 60.660(d) shall notify the Administrator or the specific provisions of § 60.662 [§ 60.662(a), (b), or (c)] or 40 CFR 65.63 of subpart D [40 CFR 65.63(a)(1), (a)(2), or (a)(3)] with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by § 60.7(a)(3) or 40 CFR 65.5(b) of subpart A, as applicable. If an owner or operator elects at a later date to use an alternative provision of § 60.662 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by § 60.664 no later than 180 days from initial start-up.

* * * * *

(l) * * *

(6) Any change in equipment or process operation, as recorded under § 60.665(j) that increases the design production capacity above the low capacity exemption level in § 60.660(c)(5) and the new capacity resulting from the change for the

destination process unit containing the affected facility. These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and E_{TOC}. The performance test is subject to the requirements of § 60.8 of the General Provisions. Unless the facility qualifies for an exemption under the low flow exemption in § 60.660(c)(6), the facility must begin compliance with the requirements set forth in §§ 60.662 or 60.660(d).

* * * * *

Subpart RRR—Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes

22. Section 60.700 is amended by adding paragraphs (d) and (e) to read as follows:

§ 60.700 Applicability and designation of affected facility.

* * * * *

(d) *Alternative means of compliance.* Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D to satisfy the requirements of paragraphs (c)(2), (c)(4), and (c)(8) of this section and §§ 60.702 through 60.705 of this subpart, except § 60.705(a), as provided in paragraphs (d)(1), (d)(2) and (e). Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1, of subpart A.

(1) *Part 60 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart D must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.14, 60.15, 60.16, and 60.7(a)(1), (a)(2), and (a)(4) of subpart A of this part for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart D, must comply with 40 CFR part 65, subpart A.

(2) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack), or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks), or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2, subpart A.

(e) Owners or operators who choose to comply with 40 CFR part 65, subpart D at initial startup shall comply with paragraph (d) of this section for each vent stream on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first.

23. Section 60.705 is amended by revising paragraphs (a) and (l)(5) to read as follows:

§ 60.705 Reporting and recordkeeping requirements.

(a) Each owner or operator subject to §§ 60.702 or 60.700(d) shall notify the Administrator or the specific provisions of § 60.702 [§ 60.702(a), (b), or (c)] or 40 CFR 65.63 of subpart D [40 CFR 65.63(a)(1), (a)(2), or (a)(3)] with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by § 60.7(a)(3) or 40 CFR 65.5(b) of subpart A, as applicable. If an owner or operator elects at a later date to use an alternative provision of § 60.702 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by § 60.704 no later than 180 days from initial start-up.

* * * * *

(l) * * *

(5) Any change in equipment or process operation, as recorded under § 60.705(i), that increases the design production capacity above the low capacity exemption level in § 60.700(c)(3) and the new capacity resulting from the change for the reactor process unit containing the affected facility. These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and ETOC. The performance test is subject to the requirements of § 60.8 of the General Provisions. Unless the facility qualifies for an exemption under any of the exemption provisions listed in § 60.700(c), the facility must begin compliance with the requirements set forth in § 60.702 or § 60.700(d).

* * * * *

PART 61—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

1. The authority citation for part 61 continues to read as follows:

Authority: 42 U.S.C. 7401, 7412, 7413, 7414, 7416, 7601 and 7602.

Subpart V—National Emission Standard for Equipment Leaks (Fugitive Emission Sources)

2. Section 61.240 is amended by revising paragraph (a) and adding paragraphs (d), (e), (f), (g), (h), and (i) to read as follows:

§ 61.240 Applicability and designation of sources.

(a) The provisions of this subpart apply to each of the following sources that are intended to operate in volatile hazardous air pollutant (VHAP) service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems required by this subpart.

* * * * *

(d) *Alternative means of compliance—SOCMI CAR unit basis.* Owners or operators may choose to comply with 40 CFR part 65, to satisfy the requirements of §§ 61.242–1 through 61.247, as provided in paragraphs (f) through (i) of this section, for all equipment that is subject to this subpart and that is part of a SOCMI CAR unit. When choosing to comply with 40 CFR part 65, the requirements of §§ 61.245(d), 61.246(i) and (j), and 61.247(a) and (f) still apply. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(e) *Alternative means of compliance—affected source basis.* Owners or operators may choose to comply with 40 CFR part 65, to satisfy the requirements of §§ 61.242–1 through 61.247, as provided in paragraphs (f) through (i) of this section, for any equipment that is subject to this subpart and that is not part of a SOCMI CAR unit, but is located at the same plant site as a SOCMI CAR

unit that is complying with 40 CFR part 65. When choosing to comply with 40 CFR part 65, the requirements of §§ 61.245(d), 61.246(i) and (j), and 61.247(a) and (f) still apply. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(f) *Surge control vessels and bottoms receivers.* For owners or operators choosing to comply with 40 CFR part 65 as provided in paragraphs (d) or (e) of this section, each surge control vessel and bottoms receiver subject to this subpart that meets the conditions specified in table 1 or table 2 of this subpart shall meet the requirements for storage vessels in 40 CFR part 65, subpart C; all other equipment subject to this subpart shall meet the requirements in 40 CFR part 65, subpart F.

(g) *Part 61 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C or F, as provided in paragraphs (d) or (e) of this section, must also comply with §§ 61.01, 61.02, 61.05 through 61.08, 61.11, 61.15, and 61.10(b) through (d) of subpart A for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subparts C or F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C or F, must comply with 40 CFR part 65, subpart A.

(h) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks) or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit the CAR referencing subparts are defined in 40 CFR 65.2 of subpart A.

(i) *Rules referencing this subpart.* Owners or operators referenced to this subpart from subpart F or J of this part may choose to comply with 40 CFR part 65 for all equipment listed in paragraph (a) of this section as provided in paragraph (d) or (e) of this section.

§ 61.241 [Amended]

3. Section 61.241 is amended by revising the definitions of *closed-vent system* and *equipment*, adding in alphabetical order the definitions of *duct work, hard-piping, maximum true vapor pressure, sampling connection system,* and *surge control vessel,* and removing the definition of *product accumulator vessel.*

§ 61.241 Definitions.

* * * * *

Closed-vent system means a system that is not open to atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

* * * * *

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, surge control vessel, bottoms receiver in VHAP service, and any control devices or systems required by this subpart.

* * * * *

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ANSI B31–3.

* * * * *

Maximum true vapor pressure means the equilibrium partial pressure exerted by the total organic HAP in the stored or transferred liquid at the temperature equal to the highest calendar-month average of the liquid storage or transfer temperature for liquids stored or transferred above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored or transferred at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss From External Floating-Roof Tanks (incorporated by reference as specified in 40 CFR 63.14 of subpart A); or

(2) As obtained from standard reference texts; or

(3) As determined by the American Society for Testing and Materials Method D2879–83 (incorporated by reference as specified in 40 CFR 63.14 of subpart A); or

(4) Any other method approved by the Administrator.

* * * * *

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

* * * * *

Surge control vessel means feed drums, recycle drums, and intermediate vessels. Surge control vessels are used within a process unit when in-process storage, mixing, or management of flow rates of volumes is needed on a recurring or ongoing basis to assist in production of a product.

* * * * *

4. Section 61.242–2 is amended by redesignating paragraph (g) as (h) and by revising paragraphs (a)(1), (d)(1)(ii), (d)(6)(iv), and (f), and by adding paragraph (g), and by revising newly redesignated paragraph (h) to read as follows:

§ 61.242–2 Standards: Pumps.

(a)(1) Each pump shall be monitored monthly to detect leaks by the methods specified in § 61.245(b), except as provided in § 61.242–1(c) and paragraphs (d), (e), (f) and (g) of this section.

* * * * *

(d) * * *

(1) * * *

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of § 61.242–11; or

* * * * *

(6) * * *

(iv) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii) of this section, a leak is detected.

* * * * *

(f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or fuel gas system or to a control device that complies with the requirements of § 61.242–11, it is exempt from the requirements of paragraphs (a) through (e) of this section.

(g) Any pump that is designated, a described in § 65.246(f)(1), as an unsafe-

to-monitor pump is exempt from the requirements of paragraph (a) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

5. Section 61.242–3 is amended by revising paragraphs (b)(2) and (h) to read as follows:

§ 61.242–3 Standards: Compressors.

* * * * *

(b) * * *

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of § 61.242–11; or

* * * * *

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section if it is equipped with a closed-vent system to capture and transport leakage from the compressor drive shaft back to a process or to a fuel gas system or to a control device that complies with the requirements of § 61.242–11, except as provided in paragraph (i) of this section.

* * * * *

6. Section 61.242–4 is amended by revising paragraph (c) and adding paragraph (d) to read as follows:

§ 61.242–4 Standards: Pressure relief devices in gas/vapor service.

* * * * *

(c) Any pressure relief device that is routed to a process or fuel gas system equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in § 61.242–11 is exempt from the requirements of paragraphs (a) and (b) of this section.

(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 61.242–10 of this subpart.

7. Section 61.242–5 is amended by revising paragraphs (a), (b) introductory text, (b)(1), (b)(2), and (c), and adding paragraph (b)(4) to read as follows:

§ 61.242–5 Standards: Sampling connecting systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, closed loop, or closed vent system, except as provided in § 61.242–1(c).

(b) Each closed-purge, closed-loop, or closed vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (b)(3) of this section:

(1) Return the purged process fluid directly to the process line; or

(2) Collect and recycle the purged process fluid; or

* * * * *

(4) Collect, store, and transport the purged process fluid to a system or facility identified in paragraph (b)(4)(i), (b)(4)(ii), or (b)(4)(iii) of this section.

(i) A waste management unit as defined in § 63.111 of 40 CFR part 63, subpart G, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR part 63, subpart G applicable to Group 1 wastewater streams.

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

8. Section 61.242–6 is amended by adding paragraphs (d) and (e) to read as follows:

§ 61.242–6 Standards: Open-ended valves or lines.

* * * * *

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

9. Section 61.242–8 is amended by revising paragraph (a) to read as follows:

§ 61.242–8 Standards: Pressure relief devices in liquid service and flanges and other connectors.

(a) Pressure relief devices in liquid service and connectors shall be monitored within 5 days by the method specified in § 61.245(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method, except at provided in § 61.242–1(c).

* * * * *

10. Section 61.242–9 is revised to read as follows:

§ 61.242–9 Standards: Surge control vessels and bottoms receivers.

Each surge control vessel and bottoms receiver shall be equipped with a closed-vent system capable of capturing and transporting any leakage from the vessel to a control device as described in § 61.242–11, except as provided in § 61.242–1(c).

11. Section 61.242–11 is amended by redesignating paragraph (g) as (m), redesignating paragraph (f)(3) as (g) introductory text and revising it, by redesignating paragraph (f)(4) as (g)(1) and revising it, by revising paragraphs (b), (c), and (f) and by adding paragraphs (g)(2), (h), (i), (j), (k), and (l), and by revising newly redesignated paragraph (m) to read as follows:

§ 61.242–11 Standards: Closed-vent systems and control devices.

* * * * *

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the organic vapors vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VHAP emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of

0.50 seconds at a minimum temperature of 760 °C.

* * * * *

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:

(i) Conduct an initial inspection according to the procedures in § 61.245(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in § 61.245(b); and

(ii) Conduct annual inspections according to the procedures in § 61.245(b).

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements or paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (k)(1) of this section, as unsafe-to-inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

(1) The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section.

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located is a new process unit, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult-to-inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe-to-inspect, an explanation of why the equipment is unsafe-to-inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult-to-inspect, an explanation of why the equipment is difficult-to-inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in § 60.486(c).

(4) For each inspection conducted in accordance with § 61.245(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

12. Section 61.246 is amended by revising paragraphs (f) introductory text and (f)(1) to read as follows:

§ 61.246 Recordkeeping requirements.

* * * * *

(f) The following information pertaining to all valves subject to the requirements of § 61.242–27(g) and (h) and to all pumps subject to the requirements of § 61.242–2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe to monitor, an explanation for each valve or pump stating why the valve or pump is unsafe to monitor, and the plan for monitoring each valve or pump.

* * * * *

13. Section 61.247 is amended by revising paragraph (a)(3), redesignating paragraph (a)(4) as paragraph (a)(5), and adding paragraphs (a)(4) and (f) to read as follows:

§ 61.247 Reporting requirements.

(a) * * *

(3) In the case of new sources which did not have an initial startup date preceding the effective date, the statement required under paragraph (a)(1) of this section shall be submitted with the application for approval of construction, as described in § 61.07 of subpart A.

(4) For owners and operators complying with 40 CFR part 65, subparts C or F, the statement required under paragraph (a)(1) of this section shall notify the Administrator that the requirements of 40 CFR part 65, subparts C or F are being implemented.

* * * * *

(f) For owners or operators choosing to comply with 40 CFR part 65, subparts C or F an application for approval of construction or modification, as required under §§ 61.05 and 61.07 of subpart A will not be required if:

(1) The new source complies with 40 CFR 65.106 through 65.115;

(2) The new source is not part of the construction of a process unit; and

(3) In the next semiannual report required by 40 CFR 65.120(b), the information in § 61.247(a)(5) is reported.

14. Tables 1 and 2 are added to part 61 at the end of subpart V. to read as follows:

TABLE 1.—TO PART 61, SUBPART V. SURGE CONTROL VESSELS AND BOTTOMS RECEIVERS AT EXISTING SOURCES

Vessel capacity (cubic meters)	Vapor pressure [1] (kilopascals)
75 ≤ capacity < 151	≥ 13.1
151 ≤ capacity	≥ 5.2

[1] Maximum true vapor pressure as defined in § 61.241 of this subpart.

TABLE 2.—TO PART 61, SUBPART V. SURGE CONTROL VESSELS AND BOTTOMS RECEIVERS AT NEW SOURCES

Vessel capacity (cubic meters)	Vapor pressure [1] (kilopascals)
38 ≤ capacity < 151	≥ 13.1
151 ≤ capacity	≥ 0.7

[1] Maximum true vapor pressure as defined in § 61.241 of this subpart.

Subpart Y—National Emission Standard for Benzene Emissions from Benzene Storage Vessels

15. Section 61.270 is amended by adding paragraphs (g), (h), (i), and (j) to read as follows:

* * * * *

(g) *Alternative means of compliance—SOCMI CAR unit basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart C to satisfy the requirements of §§ 61.271 through 61.277, except for §§ 61.271(d) and 61.274(a), as provided in paragraphs (i) and (j) of this section, for all storage vessels that are subject to this subpart and that are part of a SOCMI CAR unit. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(h) *Alternative means of compliance—affected source basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart C to satisfy the requirements of §§ 61.271 through 61.277, except for §§ 61.271(d) and 61.274(a), as provided in paragraphs (i) and (j) of this section, for any storage vessels that are subject to this subpart and that are not part of a SOCMI CAR unit, but are located at the same plant site as a SOCMI CAR unit that is complying with 40 CFR part 65. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A.

(i) *Part 61 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, as provided in paragraphs (g) or (h) of this section, must also comply with §§ 61.01, 61.02, 61.05 through 61.08, 61.11, 61.15, and 61.10(b) through (d) of subpart A for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply for storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart C must comply with 40 CFR part 65, subpart A.

(j) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks) or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2 of subpart A.

16. Section 61.271 is amended by revising paragraph (d) to read as follows:

§ 61.271 Emission standard.

* * * * *

(d) The owner or operator of each affected storage vessel shall meet the requirements of paragraph (a), (b), or (c) of this section or § 61.270(g) or (h) as follows:

(1) The owner or operator of each existing benzene storage vessel shall meet the requirements of paragraph (a), (b), or (c) of this section or § 61.270(g) or (h) no later than 90 days after September 14, 1989 with the exceptions noted in paragraphs (a)(5) and (b)(5), unless a waiver of compliance has been approved by the Administrator in accordance with § 61.11.

(2) The owner or operator of each benzene storage vessel upon which construction commenced after September 14, 1989 shall meet the requirements of paragraph (a), (b), or (c) of this section or § 61.270(g) or (h) prior to filling (i.e., roof is lifted off leg supports) the storage vessel with benzene.

(3) The owner or operator of each benzene storage vessel upon which construction commenced on or after July 28, 1988 and before September 14, 1989 shall meet the requirements of paragraph (a), (b), or (c) of this section or § 61.270(g) or (h) on September 14, 1989.

17. Section 61.274 is amended by revising paragraph (a) to read as follows:

§ 61.274 Initial report.

(a) The owner or operator of each storage vessel to which this subpart applies and which has a design capacity greater than or equal to 38 cubic meters (10,000 gallons) shall submit an initial report describing the controls which will be applied to meet the equipment requirements of §§ 61.271 or 61.270(g) or (h). For an existing storage vessel or a new storage vessel for which construction and operation commenced prior to September 14, 1989, this report shall be submitted within 90 days of September 14, 1989 and can be combined with the report required by § 61.10. For a new storage vessel for which construction or operation commenced on or after September 14, 1989, the report shall be combined with the report required by § 61.07 or 40 CFR 65.5(b) of subpart A. In the case where the owner or operator seeks to comply with § 61.271(c), with a control device other than a flare, this information may consist of the information required by § 61.272(c)(1).

* * * * *

Subpart BB—National Emission Standard for Benzene Emissions from Benzene Transfer Operations

18. Section 61.300 is amended by revising paragraph (c) and adding paragraphs (f), (g), (h), and (i) to read as follows:

§ 61.300 Applicability.

* * * * *

(c) *Comply with standards at each loading rack.* Any affected facility under paragraph (a) of this section shall comply with the standards in § 61.302 or as specified in paragraph (f) through (i) of this section if applicable at each loading rack that is handling a liquid containing 70 weight-percent or more benzene.

* * * * *

(f) *Alternative means of compliance—SOCMI CAR unit basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart E to satisfy the requirements of §§ 61.302 through 61.306, as provided in paragraphs (h) and (i) of this section, for all tank truck or railcar loading racks that are subject to this subpart and that are part of a SOCMI CAR unit. Loading racks are referred to as transfer racks in 40 CFR part 65, subpart E. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A.

Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A. All marine vessel loading racks shall comply with the provisions in §§ 65.302 through 65.306.

(g) *Alternative means of compliance—affected source basis.* Owners or operators may choose to comply with 40 CFR part 65, subpart E to satisfy the requirements of §§ 61.302 through 61.306, as provided in paragraphs (h) and (i) of this section, for any tank trucks or railcar loading racks that are subject to this subpart and that are not part of a SOCMI CAR unit, but are located at the same plant site as a SOCMI CAR unit that is complying with 40 CFR part 65. Loading racks are referred to as transfer racks in 40 CFR part 65 of subpart E. A SOCMI CAR unit is defined in 40 CFR 65.2 of subpart A. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1 of subpart A. All marine vessel loading racks shall comply with §§ 65.302 through 65.306.

(h) *Part 61 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart E, as provided in paragraphs (f) or (g) of this section, must also comply with §§ 61.01, 61.02, 61.05 through 61.08, 61.11, 61.15, and 61.10(b) through (d) of subpart A for those loading racks. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph do not apply to owners or operators of loading racks complying with 40 CFR part 65, subpart E, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subpart E, must comply with 40 CFR part 65, subpart A.

(i) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks) or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2, of subpart A.

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

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

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

Subpart G—National Emission Standards for Organic Hazardous Air Pollutants From Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

2. Section 63.110 is amended by adding paragraphs (i), (j), and (k) to read as follows:

§ 63.110 Applicability.

* * * * *

(i) *Alternative means of compliance.* Owners or operators of CMPU that are subject to § 63.100 of subpart F of this part may choose to comply with the provisions of 40 CFR part 65 as provided in paragraphs (i)(1), (i)(2), (i)(3), (j) and (k) of this section for all Group 1 and Group 2 process vents, Group 1 storage vessels, and Group 1 transfer operations that are part of the CMPU. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1, of subpart A. Group 1 and Group 2 wastewater streams, Group 2 transfer operations, Group 2 storage vessels, and in-process streams are not eligible to comply with 40 CFR part 65 and must continue to comply with the requirements of this subpart and subpart F of this part.

(1) For Group 1 and Group 2 process vents, 40 CFR part 65, subpart D satisfies the requirements of §§ 63.113 through 63.118, 63.148, 63.151, and 63.152 of this subpart and the requirements of §§ 63.102 and 63.103 of subpart F of this part.

(2) For Group 1 storage vessels, 40 CFR part 65, subpart C satisfies the requirements of §§ 63.119 through 63.123, 63.148, 63.151, and 63.152 of this subpart and the requirements of §§ 63.102 and 63.103 of subpart F of this part.

(3) For Group 1 transfer racks, 40 CFR part 65, subpart E satisfies the requirements of §§ 63.126 through 63.130, 63.148, 63.151, and 63.152 of this subpart and the requirements of §§ 63.102 and 63.103 of subpart F of this part.

(j) *Part 63 subpart A.* Owners or operators who choose to comply with 40 CFR part 65, as provided in paragraph (i) of this section, must also comply with the applicable general provisions of 40 CFR part 63 listed in table 1A of this subpart. All sections and paragraphs of subpart A of this part that are not mentioned in table 1A of this subject do not apply to owners or operators who choose to comply with 40 CFR part 65, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with a subpart of 40 CFR part 65 must comply with 40 CFR part 65, subpart A.

(k) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack), or storage vessel in a CMPU, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks), or storage vessels that are within the CMPU, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A CMPU that is subject to § 63.100 of subpart F is a SOCMI CAR unit by definition. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2, of subpart A.

3. Table 1A is added to subpart G, immediately after table 1, to read as follows:

TABLE 1A. TO SUBPART G.—APPLICABLE 40 CFR PART 63 GENERAL PROVISION

40 CFR part 63 subpart A provisions for referencing subpart G
§ 63.1(a)(1), (a)(2), (a)(3), (a)(13), (a)(14), (b)(2) and (c)(4).
§ 63.2.
§ 63.5(a)(1), (a)(2), (b),(d)(1)(ii), (d)(3)(v), (d)(4),(e), (f)(2).
§ 63.6(a), (b)(3), (c)(5),(i)(1), (i)(2), (i)(4)(i)(A), (i)(5) through (i)(14), (i)(16) and (j).
§ 63.9(a)(2), (b)(4)(i)[a], (b)(4)(ii), (b)(4)(iii), (b)(5)[a], (c), (d).
§ 63.10(d)(4).
§ 63.12(b).

[a] The notifications specified in §§ 63.9(b)(4)(i) and (b)(5) shall be submitted at the times specified in 40 CFR part 65.

Subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

4. Section 63.160 is amended by adding paragraph (g) to read as follows:

§ 63.160 Applicability and designation of source.

* * * * *

(g) *Alternative means of compliance.* Owners or operators of equipment that is subject to § 63.100 of subpart F of this part may choose to comply with the provisions of 40 CFR part 65 to satisfy the requirements of §§ 63.162 through 63.182 of this subpart and §§ 63.102 and 63.103 of subpart F of this part, as provided in paragraphs (g)(1), (g)(2), and (g)(3). When choosing to comply with 40 CFR part 65, the requirements of § 63.180(d) of this subpart remain in effect. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1, of subpart A.

(1) *Surge control vessels and bottoms receivers.* For owners or operators choosing to comply with 40 CFR part 65, each surge control vessel and bottoms receiver subject to § 63.100 of subpart F of this part that meets the conditions specified in table 2 or table 3 of this subpart shall meet the requirements for storage vessels in 40 CFR part 65, subpart C; all other equipment subject to § 63.100 of subpart F of this part shall meet the requirements in 40 CFR part 65, subpart F.

(2) *Part 63 Subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subparts C or F for equipment subject to § 63.100 of subpart F of this part must also comply with the applicable general provisions of 40 CFR part 63 listed in table 4 of this subpart. All sections and paragraphs of subpart A of this part that are not mentioned in table 4 of this subpart do not apply to owners or operators of equipment subject to § 63.100 of subpart F of this part complying with 40 CFR part 65, subparts C or F, except that provisions required to be met prior to implementing 40 CFR part 65 remain in effect. Owners and operators who choose to comply with 40 CFR part 65, subparts C or F, must comply with 40 CFR part 65, subpart A.

(3) *Comply on a SOCMI CAR unit basis.* When choosing to comply with any subpart of 40 CFR part 65 for any equipment, process vent, loading rack (transfer rack) or storage vessel in a SOCMI CAR unit, owners or operators must also comply with all applicable subparts of 40 CFR part 65 for all equipment, process vents, loading racks (transfer racks), or storage vessels that are within the SOCMI CAR unit, that are subject to a CAR referencing subpart, and that are eligible to comply with the CAR. A SOCMI CAR unit and the CAR referencing subparts are defined in 40 CFR 65.2, of subpart A.

5. Table 4 is added to subpart H to read as follows:

TABLE 4 TO SUBPART H—APPLICABLE 40 CFR PART 63 GENERAL PROVISIONS

40 CFR part 63 subpart A provisions for referencing subpart H
§ 63.1(a)(1), (a)(2), (a)(3), (a)(13), (a)(14), (b)(2) and (c)(4).
§ 63.2.
§ 63.5(a)(1), (a)(2), (b), (d)(1)(ii), (d)(3)(v), (d)(4), (e), (f)(1) and (f)(2).
§ 63.6(a), (b)(3), (c)(5), (i)(1), (i)(2), (i)(4)(i)(A), (i)(5) through (i)(14), (i)(16) and (j).
§ 63.9(a)(2), (b)(4)(i)[a], (b)(4)(ii), (b)(4)(iii), (b)(5)[a], (c) and (d).
§ 63.10(d)(4).
§ 63.12(b).

[a] The notifications specified in § 63.9(b)(4)(i) and (b)(5) shall be submitted at the times specified in 40 CFR part 65.

6. Add part 65 to read as follows:

PART 65—CONSOLIDATED FEDERAL AIR RULE

Subpart A—General Provisions

Subpart B [Reserved]

Subpart C—Storage Vessels

Subpart D—Process Vents

Subpart E—Transfer Racks

Subpart F—Equipment Leaks

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

Subpart A—General Provisions

§ 65.1 Applicability.

(a) The provisions of this subpart apply to owners or operators expressly referenced to this part from a subpart of 40 CFR part 60, 61, or 63 for which the owner or operator has chosen to comply with the provisions of this part as an alternative to the provisions in the referencing subpart as specified in paragraphs (b) and (c) of this section.

(b) Owners or operators choosing to comply with a subpart of this part for any regulated source included in or assigned to a synthetic organic chemical manufacturing industry (SOCMI) consolidated air rule (CAR) unit must comply with all applicable subparts of this part for all other regulated sources that are included in or assigned to that SOCMI CAR unit and are subject to one of the referencing subparts. Any sources that become subject to a referencing subpart and that are part of a SOCMI CAR unit complying with this part must comply with this part.

(c) Owners or operators may choose to comply with this part for any regulated source that meets the specifications listed in paragraphs (c)(1) and (c)(2) of this section.

(1) The regulated source is located at the same plant site as a SOCMI CAR unit that is complying with this part, and

(2) The regulated source is subject to one of the following subparts: 40 CFR part 60, subparts DDD, Ka, or Kb, or 40 CFR part 61 subparts V, Y, or BB.

(d) Compliance with this part instead of the referencing subparts does not alter the applicability of the referencing subparts. This part applies to only the equipment, process vents, storage vessels, or transfer operations to which the referencing subparts apply. The CAR does not extend applicability to equipment, process vents, storage vessels, or transfer operations that are not regulated by the referencing subpart.

(e) The provisions of 40 CFR part 60, subpart A, 40 CFR part 61, subpart A, and 40 CFR part 63, subpart A that are listed in table 1 of this part still apply to owners or operators of regulated sources expressly referenced to this part. The owner or operator shall comply with the provisions in table 1 of this subpart in the column corresponding to the referencing subpart. All provisions of 40 CFR part 60, subpart A, 40 CFR part 61, subpart A, and 40 CFR part 63, subpart A not expressly referenced in table 1 do not apply and the provisions of this part apply instead, except that provisions which were required to be met prior to implementation of part 65 remain in force.

(f) *Implementation date.* Owners or operators who choose to comply with this part shall comply by the dates specified in paragraph (f)(1) or (f)(2) of this section, as applicable, and shall meet the requirement in paragraph (f)(3) of this section.

(1) Except as provided in paragraph (f)(2) of this section, owners or operators shall implement this part as specified in an implementation schedule established in a title V permit or, if the source is not a title V source, by a date established by agreement with the Administrator or delegated authority. The implementation schedule shall be proposed by the source in a title V permit application or amendment or, for non-title V sources, in the Initial Notification for part 65 Applicability as specified in § 65.5(c). The implementation schedule can not extend for longer than 3 years.

(2) For SOCMI CAR units or regulated sources that will comply with this part at initial startup instead of with the requirements of the referencing subpart or subparts, the implementation date shall be at initial startup or by the compliance date specified by the applicable referencing subpart(s).

(3) There shall be no gaps in compliance between compliance with the referencing subpart and compliance with this part.

(g) *Transitioning out of this part.* Owners or operators who decide to no longer comply with this part and to comply with the provisions in the referencing subpart instead, shall comply with paragraphs (g)(1) through (g)(3) of this section, as applicable.

(1) This transition shall be carried out on a date established in a title V permit or if the source is not a title V source, by a date established by agreement with the Administrator or delegated authority. The transition date shall be proposed in a title V permit amendment, or, for non-title V sources, in a periodic report or separate notice.

(2) There shall be no gaps in compliance between compliance with this part and compliance with the referencing subpart provisions.

(3) If an owner or operator decides to no longer comply with this part for a regulated source in a SOCMI CAR unit, then the owner or operator shall comply with the applicable referencing subparts for all regulated sources that are part of that SOCMI CAR unit.

(h) *Overlap with provisions of other subparts of this part.* When provisions of another subpart of this part conflict with the provisions of this subpart, the provisions of the other subpart shall apply.

(i) *Alternative to the assignment procedures.*

(1) If an owner or operator has an elastomer product process unit (EPPU), thermoplastic product process unit (TPPU), or a petroleum refinery process unit (PRPU) that is subject to 40 CFR part 60 subpart VV, III, NNN, or RRR, then the EPPU, TPPU, or PRPU is a SOCMI CAR unit, and the assignment procedures in paragraphs (j), (l), and (m) of this section need not be carried out. The assignment procedures in paragraph (k) for transfer racks must be followed. An EPPU is defined in 40 CFR part 63, subpart U. A TPPU is defined in 40 CFR part 63, subpart JJJ. A PRPU is defined in 40 CFR part 63, subpart CC.

(2) If an owner or operator has a chemical manufacturing process unit (CMPU) that is subject to 40 CFR 63.100 in subpart A or 40 CFR part 60, subparts VV, III, NNN, or RRR, then the CMPU is a SOCMI CAR unit, and the assignment procedures in paragraphs (j), (k), (l), and (m) of this section need not be carried out.

(j) *Storage vessel assignment procedures.* The owner or operator shall follow the procedures specified in paragraphs (j)(1) through (j)(5) of this section to determine whether a storage vessel is part of a SOCMI CAR unit.

(1) Where a storage vessel is dedicated to a SOCMI CAR unit, the storage vessel shall be considered part of that SOCMI CAR unit.

(2) Where a storage vessel is not used by a SOCMI CAR unit it can not be assigned to that SOCMI CAR unit.

(3) If a storage vessel is not dedicated to a SOCMI CAR unit, then the assignment of the storage vessel shall be determined according to the provisions in paragraphs (j)(3)(i) through (j)(3)(iii) of this section.

(i) If a storage vessel is predominately used by a SOCMI CAR unit, then that storage vessel shall be assigned to that SOCMI CAR unit. If a storage vessel is predominately used by a process unit that is not a SOCMI CAR unit or is not part of a SOCMI CAR unit, then that storage vessel shall not be assigned to a SOCMI CAR unit. Predominant use shall be determined as specified in paragraphs (j)(3)(i)(A) through (j)(3)(i)(C) of this section.

(A) If the greatest input into a storage vessel is from a SOCMI CAR unit that is located on the same plant site as that storage vessel, then that SOCMI CAR unit has the predominant use.

(B) If the greatest input into the storage vessel is from a process unit that is not a SOCMI CAR unit and that is located on the same plant site as that storage vessel, then that process unit has the predominant use.

(C) If the greatest input into the storage vessel is not from the same plant site as the storage vessel, then the predominant use is the process unit or SOCMI CAR unit on the same plant site that receives the greatest amount of material from the storage vessel.

(ii) If a storage vessel is shared among process units and SOCMI CAR units so that there is no single predominant use, the storage vessel shall be considered part of a SOCMI CAR unit unless the storage vessel has been assigned under a subpart of 40 CFR part 63 to a process unit that is not a SOCMI CAR unit. In these cases, the storage vessel shall be assigned as specified in the subpart of 40 CFR part 63. If a storage vessel is shared among more than one SOCMI CAR unit, the owner or operator may assign the storage vessel to any of the SOCMI CAR units.

(iii) If the predominant use of a storage vessel varies from year to year, then the assignment of the storage vessel shall be determined based on the utilization that occurred during the year preceding the date of the Title V permit establishing the implementation schedule specified in paragraph (f)(1) of this section, or the date of the initial notification of part 65 Applicability specified in paragraph (f)(1) of this section. This determination shall be reported as part of an operating permit application or as otherwise specified by the permitting authority.

(4) Where a storage vessel is located in a tank farm (including a marine tank farm), the assignment of the storage vessel shall be determined according to the provisions in paragraphs (j)(4)(i) through (j)(4)(iii) of this section. If a plant site does not include a SOCMI CAR unit, a storage vessel in a tank farm associated with a plant site can not be assigned to a SOCMI CAR unit.

(i) The storage vessel may only be assigned to a SOCMI CAR 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 or SOCMI CAR unit, an intervening storage vessel means a storage vessel connected by hard-piping to the process unit or SOCMI CAR unit and to the storage vessel in the tank farm so that product or raw material entering or leaving the process unit or SOCMI CAR 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 only one SOCMI CAR unit and no process unit at the plant site that meets the criteria of paragraph (j)(4)(i) of this section with respect to a storage vessel located at a tank farm, the storage vessel shall be assigned to that SOCMI CAR unit.

(iii) If there are two or more process units and/or SOCMI CAR units at the plant site that meet the criteria of paragraph (j)(4)(i) of this section with respect to a storage vessel located at a tank farm, whether the storage vessel is assigned to a SOCMI CAR unit shall be determined according to the provisions of paragraph (j)(3) of this section. The predominant use shall be determined among only those process units and SOCMI CAR units that meet the criteria of paragraph (j)(4)(i) of this section.

(5) If a storage vessel begins to receive material from (or send material to) another process unit or SOCMI CAR unit, or ceases to receive material from (or send material to) a SOCMI CAR unit, or if the assignment of the storage vessel has been determined according to the provisions of paragraph (j)(3) of this section and there is a change so that the predominant use may reasonably have changed, the owner or operator shall reevaluate the assignment of the storage vessel, and reassign if necessary.

(k) *Transfer rack assignment procedures.* The owner or operator shall follow the procedures specified in paragraphs (k)(1) through (k)(4) of this section to determine whether the arms and hoses in a transfer rack are part of a SOCMI CAR unit.

(1) Where a transfer rack is dedicated to a SOCMI CAR unit, the transfer rack shall be considered part of that SOCMI CAR unit.

(2) Where a transfer rack is not used by a SOCMI CAR unit it can not be assigned to a SOCMI CAR unit.

(3) If a transfer rack is not dedicated to a SOCMI CAR unit, then the assignment of the transfer rack shall be determined at each transfer arm or transfer hose according to the provisions in paragraphs (k)(3)(i) through (k)(3)(iv) of this section.

(i) Each transfer arm or transfer hose that is dedicated to the transfer of liquid material from a SOCMI CAR unit is part of that SOCMI CAR unit.

(ii) If a transfer arm or transfer hose is shared among SOCMI CAR units and/

or process units, and one of the SOCMI CAR units provides the greatest amount of the material that is loaded by that transfer arm or transfer hose, then the transfer arm or transfer hose is part of that SOCMI CAR unit. If a process unit that is not a SOCMI CAR unit or is not part of a SOCMI CAR unit provides the greatest amount of the material that is loaded by a transfer arm or transfer hose, then that transfer arm or transfer hose is not part of a SOCMI CAR unit.

(iii) If a transfer arm or transfer hose is shared among process units and SOCMI CAR units so that there is no single predominant use as described in paragraph (k)(2)(ii) of this section, then that transfer arm or hose shall be considered part of the SOCMI CAR unit unless the transfer arm or transfer hose has been assigned under a 40 CFR part 63 subpart to a process unit that is not a SOCMI CAR unit. In these cases, the transfer arm or transfer hose shall be assigned as specified in the 40 CFR part 63 subpart. If a transfer arm or transfer hose is shared among more than one SOCMI CAR unit, the owner or operator may assign the transfer arm or transfer hose to any of the SOCMI CAR units.

(iv) If the predominant use of a transfer arm or transfer hose varies from year to year, then the assignment of the transfer arm or transfer hose shall be determined based on the utilization that occurred during the year preceding the date of the Title V permit establishing the implementation schedule specified in paragraph (f)(1) of this section, or the date of the initial notification of part 65 Applicability specified in paragraph (f)(1) of this section. This determination shall be reported as part of an operating permit application or as otherwise specified by the permitting authority.

(4) If a transfer rack that was dedicated to a single process unit or SOCMI CAR unit begins to serve another process unit or SOCMI CAR unit, or if assignment was determined under the provisions of paragraph (k)(3) of this section and there is a change so that the predominant use may reasonably have changed, the owner or operator shall reevaluate the assignment of the transfer rack, transfer arm or transfer hose, and reassign if necessary.

(l) *Process vent assignment procedures.* The owner or operator shall follow the procedures specified in paragraphs (l)(1) through (l)(4) of this section to determine whether the process vent(s) from a distillation unit is/are part of a SOCMI CAR unit.

(1) Where a distillation unit is dedicated to SOCMI CAR unit, the process vents from that distillation unit shall be considered part of that SOCMI CAR unit.

(2) If a distillation unit is not used by a SOCMI CAR unit, the process vents from that distillation unit can not be assigned to a SOCMI CAR unit.

(3) If a distillation unit is not dedicated to a single SOCMI CAR unit, then the assignment of the process vents from that distillation unit shall be determined according to the provisions in paragraphs (l)(3)(i) through (l)(3)(iv) of this section.

(i) If the greatest input to the distillation unit is from a SOCMI CAR unit located on the same plant site, then the process vents from that distillation unit shall be assigned to that SOCMI CAR unit.

(ii) If the greatest input to the distillation unit is not provided from a process unit or SOCMI CAR unit that is located on the same plant site, then the process vents from the distillation unit shall be assigned to the SOCMI CAR unit located at the same plant site that receives the greatest amount of material from the distillation unit, unless a non-SOCMI process unit receives the greatest amount of material from the distillation unit. In this case, the process vents from the distillation unit shall not be assigned to a SOCMI CAR unit.

(iii) If a distillation unit is shared among process units and SOCMI CAR units so that there is no single predominant use, as described in paragraphs (l)(3)(i) and (l)(3)(ii) of this section, the process vents from the distillation unit shall be considered to be part of the SOCMI CAR unit unless the distillation unit has been assigned under a 40 CFR part 63 subpart to a process unit that is not a SOCMI CAR unit. In these cases, the process vents from the distillation unit shall be assigned as specified in the 40 CFR part 63 subpart. If a distillation unit is shared among more than one SOCMI CAR unit, the owner or operator may assign the process vents from the distillation unit to any of the CAR units.

(iv) If the predominant use of a distillation unit varies from year to year, then the assignment of the distillation unit shall be determined based on the utilization that occurred during the year preceding the date of the Title V permit establishing the implementation schedule specified in paragraph (f)(1) of this section, or the date of the initial notification of part 65 Applicability specified in paragraph (f)(1) of this section. This determination shall be included as part of an operating permit application or as otherwise specified by the permitting authority.

(4) If a distillation unit begins to serve another process unit or SOCMI CAR unit, or if assignment of the distillation unit was determined under the provisions of paragraph (l)(3) of this section and there is a change so that the predominant use may reasonably have changed, the owner or operator shall reevaluate the assignment of the process vents from the distillation unit, and reassignment if necessary.

(m) *Equipment assignment procedures.* If specific items of equipment (pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, surge control vessels, and bottoms receivers), that are part of a SOCMI CAR unit complying with this part, are managed by different administrative organizations (for example, different companies, affiliates, departments, divisions, etc.) those items of equipment may be aggregated with any SOCMI CAR unit within the plant site.

§ 65.2 Definitions.

All terms used in this part shall have the meaning given them in the Act and in this section. If a term is defined both in this section and in other parts that reference the use of this part, the term shall have the meaning given in this section for purposes of this part.

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*).

Administrator means the Administrator of the United States Environmental Protection Agency (EPA) or his or her authorized representative (for example, a State that has been delegated the authority to implement the provisions of this part).

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a reference test or equivalent method and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of 40 CFR part 63 or approved by the Administrator prior to [date of publication of final rule in the **Federal Register**] to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Automated monitoring and recording system means any means of measuring values of monitored parameters and creating a hard copy or computer record of the measured values that does not require manual reading of monitoring instruments and manual transcription of

data values. Automated monitoring and recording systems include, but are not limited to, computerized systems and strip charts.

Batch process means a process in which the equipment is fed intermittently or discontinuously. Processing then occurs in this equipment after which the equipment is generally emptied. Examples of industries that use batch processes include pharmaceutical production and pesticide production.

Batch product-process equipment train means the collection of equipment (for example, connectors, reactors, valves, pumps) configured to produce a specific product or intermediate by a batch process.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator or a process heater. Boiler also means any industrial furnace as defined in 40 CFR 260.10.

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

By compound means by individual stream components, not carbon equivalents.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (for example, from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Closed-loop system means an enclosed system that returns process fluid to the process and is not vented to the atmosphere except through a closed vent system.

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers must be covered or closed when not being filled or emptied.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device. A closed vent system does not include the vapor collection system that is part of any tank truck or railcar or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors.

Closed vent system shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a closed vent system or part of a closed vent system consistent with safety constraints and during which repairs can be effected. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a closed vent system shutdown. An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the closed vent system or part of the closed vent system of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled closed vent system shutdown, is not a closed vent system shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not closed vent system shutdowns.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic emissions.

Compliance date means the date by which a regulated source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to the Act.

Connector means flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are not inaccessible, ceramic, or ceramic-lined (for example, porcelain, glass, or glass-lined) as described in § 65.108(e)(2) of subpart F of this part.

Continuous parameter monitoring system or *CPMS* means the total equipment that may be required to meet the data acquisition and availability requirements of this part used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

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 § 65.161(a) of subpart G of this part.

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

Control device means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this part. Such equipment or devices include, but are not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. For process vents (as defined in this section), recapture devices are considered control devices but recovery devices are not considered control devices except for the recovery devices specified in § 65.63(a)(2)(ii). A fuel gas system is not a control device. For a steam stripper, a primary condenser is not considered a control device.

Control System means the combination of the closed vent system and the control devices used to collect and control vapors or gases from a regulated source.

Day means a calendar day.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Ductwork means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Emission point means an individual process vent, storage vessel, transfer rack, wastewater stream, or equipment leak.

Empty or emptying means the removal of the stored liquid from a storage vessel. Storage vessels where stored liquid is left on the walls, as bottom clingage, or in pools due to bottom irregularities are considered empty. Lowering of the stored liquid level, so that the floating roof is resting on its legs, as necessitated by normal vessel operation (for example, when changing stored material or when transferring material out of the vessel for shipment) is not considered emptying.

Equipment means each of the following that is subject to control under the referencing subpart: pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system;

and any control devices or systems used to comply with subpart F of this part.

Equivalent method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method under specified conditions.

External floating roof or *EFR* means a pontoon-type (noncontact) or double-deck-type (contact) roof that is designed to rest on the stored liquid surface in a storage vessel with no fixed roof.

Failure, EFR (referred to as EFR failure) is defined as any time the external floating roof's primary seal has holes, tears, or other openings in the shoe, seal fabric, or seal envelope; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the stored liquid surface from the atmosphere; or a slotted membrane has more than 10 percent open area.

Failure, internal floating roof type A (referred to as IFR type A failure) means any time, as determined during visual inspection through roof hatches, in which the internal floating roof is not resting on the surface of the stored liquid inside the storage vessel and is not resting on the leg supports; or there is stored liquid on the floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel.

Failure, internal floating roof type B (referred to as IFR type B failure) means any time, as determined during internal inspections, the internal floating roof's primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the stored liquid surface from the atmosphere; or a slotted membrane has more than 10 percent open area.

Fill or *filling* means the introduction of liquids into a storage vessel, but not necessarily to complete capacity.

First attempt at repair, for the purposes of subparts F and G of this part, means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in § 65.104(b) of subpart F of this part and § 65.143(c) of subpart G of this part, as appropriate, to verify whether the leak is repaired unless the owner or operator determines by other means that the leak is not repaired.

Fixed roof means a roof that is mounted (for example, permanently affixed) on a storage vessel in a stationary manner and that does not move with fluctuations in stored liquid level.

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

Floating roof means a roof consisting of an external floating roof or an internal floating roof that is designed to rest upon and is supported by the stored liquid, and is equipped with a continuous seal.

Flow indicator means a device that indicates whether gas flow is present in a line, or whether the valve position would allow gas flow to be present in a line.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Group 1 process vent means a process vent for which the flow rate is greater than or equal to 0.011 standard cubic meter per minute (0.39 cubic feet per minute); the total concentration is greater than or equal to the appropriate value in table 1 of subpart D of this part, and the total resource effectiveness index value, calculated according to § 65.64(h) of subpart D of this part is less than or equal to 1.0.

Group 2A process vent means a process vent that is not Group 1 or Group 2B for which monitoring and recordkeeping are required to demonstrate a total resource effectiveness index value greater than 1.0.

Group 2B process vent means a process vent that is not Group 1 or Group 2A for which monitoring and recordkeeping are not required to demonstrate a total resource effectiveness index value greater than 4.0, or which are exempt from control requirements due to the vent stream's flow rate, regulated material concentration, or total resource effectiveness index value.

Halogenated vent stream or *halogenated stream* means, for purposes of this part, a vent stream determined to be halogenated by the procedures specified in § 65.83(b)(3) of subpart E of this part for transfer racks and in § 65.64(g) of subpart D of this part for process vents, as applicable.

Halogens and hydrogen halides means hydrogen chloride (HCl), chlorine (Cl_2), hydrogen bromide (HBr), bromine (Br_2), and hydrogen fluoride (HF).

Hard-piping means pipe or tubing that is manufactured and installed using good engineering judgment and standards, such as American National Standards Institute (ANSI) B31–3.

In food/medical service means that a piece of equipment in regulated material service contacts a process stream used to manufacture a Food and Drug Administration-regulated product where leakage of a barrier fluid into the process stream would cause any of the following:

(1) A dilution of product quality so that the product would not meet written specifications;

(2) An exothermic reaction that is a safety hazard;

(3) The intended reaction to be slowed down or stopped; or

(4) An undesired side reaction to occur.

In gas/vapor service means that a piece of equipment in regulated material service contains a gas or vapor when in operation.

In heavy liquid service means that a piece of equipment in regulated material service is not in gas/vapor service or in light liquid service.

In light liquid service means that a piece of equipment in regulated material service contains a liquid that meets the following conditions:

(1) The vapor pressure of one or more of the organic compounds is greater than 0.3 kilopascals at 20 °C (0.04 pounds per square inch at 68 °F);

(2) The total concentration of the pure organic compound constituents having a vapor pressure greater than 0.3 kilopascals at 20 °C (0.04 pounds per square inch at 68 °F) is equal to or greater than 20 percent by weight of the total process stream; and

(3) The fluid is a liquid at operating conditions. (Note: Vapor pressures may be determined by standard reference texts or American Society for Testing and Materials (ASTM) D–2879.)

In liquid service means that a piece of equipment in regulated material service is not in gas/vapor service.

In regulated material service means, for the purposes of the equipment leak provisions of subpart F of this part, equipment which meets the definition of ''in volatile organic compound service'', ''in volatile hazardous air pollutant service'', ''in benzene service'', ''in vinyl chloride service'', or ''in organic hazardous air pollutant service'' as defined in the referencing subpart.

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure that is at least 5 kilopascals (0.7 pounds per square inch) below ambient pressure.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section present is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas. This energy recovery section limitation does not apply to an energy recovery section used solely to preheat the incoming vent stream or combustion air.

Initial startup means, for new or reconstructed sources, the first time the source begins production. For additions or changes not defined as a new source by an applicable referencing subpart, initial startup means the first time additional or changed equipment is put into operation. Initial startup does not include operation solely for testing equipment. Initial startup does not include subsequent startup (as defined in this section) of process units following malfunctions or process unit shutdowns. Except for equipment leaks, initial startup also does not include subsequent startups (as defined in this section) of process units following changes in product for flexible operation units or following recharging of equipment in batch operation.

Instrumentation system means a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (for example, composition, pressure, flow). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 0.5 inches and smaller in diameter, and connectors nominally 0.75 inches and smaller in diameter are considered instrumentation systems for the purposes of subpart F of this part.

Internal floating roof or *IFR* means a roof that is designed to rest or float on the stored liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof.

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

Liquids dripping means any visible leakage from a seal including dripping, spraying, misting, clouding, and ice formation. Indications of liquids dripping include puddling or new stains that are indicative of an existing evaporated drip.

Loading cycle means the time period from the beginning of filling a tank truck or railcar until flow to the control device ceases as determined by the flow indicator.

Low-throughput transfer racks means those transfer racks that transfer less than a total of 11.8 million liters per year (3.12 million gallons per year) of liquid containing regulated material.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, monitoring equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. Malfunctions that do not affect a regulated source or compliance with this part are not malfunctions for purposes of this part.

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

Nonautomated monitoring and recording system means manual reading of values measured by monitoring instruments and manual transcription of those values to create a record. Nonautomated systems do not include strip charts.

Nonrepairable means that it is technically infeasible to repair a piece of equipment from which a leak has been detected without a process unit shutdown.

One-hour period means the 60-minute period commencing on the hour.

Onsite or *on-site* means, with respect to records required to be maintained by this part, that the records are stored at a location within a plant site that encompasses the regulated source. Onsite includes, but is not limited to, storage at the regulated source to which the records pertain, or storage in central files elsewhere at the plant site.

Open-ended valve or line means any valve except relief valves having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Organic monitoring device means a device used to indicate the concentration level of organic compounds based on a detection principle such as infrared, photo ionization, or thermal conductivity.

Owner or operator means any person who owns, leases, operates, controls, or supervises a regulated source or a stationary source of which a regulated source is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in part 71 of this chapter.

Permitting authority means one of the following:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661) and part 71 of this chapter.

Plant site means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Polymerizing monomer means for purposes of this part, a compound which may form polymer buildup in pump mechanical seals resulting in rapid mechanical seal failure.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the relief device. This release can be one release or a series of releases over a short time period.

Pressure relief device or valve means a device used to prevent operating pressures from exceeding the maximum allowable working pressure of the

process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

Primary fuel means the fuel that provides the principal heat input to the device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

Process heater means an enclosed combustion device that transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water. A process heater may, as a secondary function, heat water in unfired heat recovery sections.

Process unit means the equipment specified in the definitions of process unit or chemical manufacturing process unit in the applicable referencing subpart. If the referencing subpart does not define process unit, then, for the purposes of this part, process unit means the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be effected. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.

Process vent means a process vent or vent stream as they are defined in the referencing subpart.

Recapture device means an individual unit of equipment capable of and used for the purpose of recovering chemicals, but not normally for use, reuse, or sale. For example, a recapture device may recover chemicals primarily for disposal. Recapture devices include, but are not limited to, absorbers, carbon adsorbers, and condensers. For purposes of the monitoring, recordkeeping, and reporting requirements of this part, recapture devices are considered recovery devices.

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

Reference method means any method of sampling and analyzing for an air pollutant as specified in an applicable subpart, the appendices to 40 CFR part 60 or 63, or in appendix B of 40 CFR part 61.

Referencing subpart means 40 CFR part 60, subparts Ka, Kb, VV, DDD, III, NNN, and RRR; 40 CFR part 61, subparts V, Y, and B; and 40 CFR part 63, subparts G and H.

Regulated material, means for purposes of this part, the material regulated by the specific referencing subpart, including volatile organic liquids (VOL), volatile organic compounds (VOC), organic hazardous air pollutants (HAP's), benzene, vinyl chloride, or other chemicals or groups of chemicals.

Regulated source, for the purposes of this part, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to this part, or 40 CFR part 60, 61, or 63.

Relief device or valve means a device or valve used only to release an unplanned, nonroutine discharge. A relief device or valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Repaired, for the purposes of subparts F and G of this part, means that equipment meets the following conditions:

(1) Is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable section of this part; and

(2) Unless otherwise specified in applicable provisions of this part, is monitored as specified in § 65.104(b) of subpart F of this part and § 65.143(c) of subpart G of this part, to verify that emissions from the equipment are below the applicable leak definition.

Routed to a process or route to a process means the emissions are conveyed to any enclosed portion of a process unit where the emissions are predominantly recycled and/or consumed in the same manner as a material that fulfills the same function in the process and/or transformed by chemical reaction into materials that are not regulated materials and/or incorporated into a product; and/or recovered.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Screwed (threaded) connector means a threaded pipe fitting where the threads are cut on the pipe wall and the fitting requires only two pieces to make the connection (i.e., the pipe and the fitting).

Secondary fuel means a fuel fired through a burner other than the primary fuel burner that provides supplementary heat in addition to the heat provided by the primary fuel.

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Set pressure means, for the purposes of subparts F and G of this part, the pressure at which a properly operating pressure relief device begins to open to relieve atypical process system operating pressure.

Shutdown means the cessation of operation of a regulated source (for example, chemical manufacturing process unit or a reactor, air oxidation reactor, distillation unit) and equipment required or used to comply with this part, or the emptying and degassing of a storage vessel. Shutdown is defined here for purposes including, but not limited to, periodic maintenance, replacement of equipment, or repair. Shutdown does not include the routine

rinsing or washing of equipment in batch operation between batches.

Simultaneous loading means, for a shared control device, loading of regulated materials from more than one transfer arm at the same time so that the beginning and ending times of loading cycles coincide or overlap and there is no interruption in vapor flow to the shared control device.

Single-seal system means, for purposes of subpart C of this part, a floating roof having one continuous seal. This seal may be a vapor-mounted, liquid mounted, or metallic shoe seal.

Specific gravity monitoring device means a unit of equipment used to monitor specific gravity and having a minimum accuracy of ±0.02 specific gravity units.

Startup means the setting into operation of a regulated source (for example, chemical manufacturing process unit or a reactor, air oxidation reactor, distillation unit, a storage vessel after emptying and degassing) and/or equipment required or used to comply with this part. Startup includes initial startup, operation solely for testing equipment, the recharging of equipment in batch operation, and transitional conditions due to changes in product for flexible operation units.

State means all non-Federal authorities, including local agencies, interstate associations, and statewide programs, that have delegated authority to implement the provisions of this part; the referencing subparts; and/or the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Steam jet ejector means a steam nozzle that discharges a high-velocity jet across a suction chamber that is connected to the equipment to be evacuated.

Stuffing box pressure means the fluid (liquid or gas) pressure inside the casing or housing of a piece of equipment, on the process side of the inboard seal.

Surge control vessel means feed drums, recycle drums, and intermediate vessels. Surge control vessels are used within a process unit (as defined in the specific subpart that references this part) when in-process storage, mixing, or management of flow rates or volumes is needed to assist in production of a product.

Synthetic organic chemical manufacturing industry consolidated air regulation unit or SOCMI CAR unit means the equipment assembled and connected by pipes or ducts to process raw materials, and to manufacture intended products defined in 40 CFR part 60, subparts VV, III, NNN, and RRR, and in 40 CFR part 63, subpart F. A SOCMI CAR unit defines the boundary of equipment potentially subject to this part. A SOCMI CAR unit may consist of one or more unit operations. For the purpose of this subpart, SOCMI CAR unit includes air oxidation reactors and their associated product separators and recovery devices; reactors and their associated product separators and recovery devices; distillation units and their associated distillate receivers and recovery devices; associated unit operations; associated recovery devices; and any feed, intermediate and product storage vessels, product transfer racks, and connected ducts and piping. A SOCMI CAR unit includes pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and control devices or systems. Except as provided in § 65.1(i), procedures for assigning storage vessels, transfer racks, distillation units and equipment to SOCMI CAR units are specified in § 65.1(j), (k), (l), and (m), respectively. A SOCMI CAR unit is identified by its primary product. If a SOCMI CAR unit is subject to both HON and an NSPS for VOC emissions from SOCMI, the SOCMI CAR unit shall be defined as the HON chemical manufacturing process unit. To be considered a SOCMI CAR unit one of the following must occur:

(1) It must include a process vent subject to 40 CFR part 60, subparts III, NNN, or RRR, or equipment subject to 40 CFR part 60 subpart VV;

(2) It must include a process vent that would be subject to 40 CFR part 60 subparts III, NNN, or RRR or equipment that would be subject to 40 CFR part 60 subpart VV if construction of the regulated source had commenced after the applicability date of the applicable SOCMI New Source Performance Standards; or

(3) It must be a chemical manufacturing process unit subject to 40 CFR 63.100 of subpart F, the Hazardous Organic National Emissions Standard for Hazardous Air Pollutants (HON).

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

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established under 40 CFR part 70 or 71 to implement title V of the Act (42 U.S.C. 7661).

Total organic compounds or *TOC* means those compounds measured according to the procedures specified in § 65.64(c) of subpart D of this part, and § 65.158(b)(3)(ii)(A) of subpart G of this part, as applicable. Those compounds that the Administrator has determined do not contribute appreciably to the formation of ozone and that are specifically excluded from the definition of volatile organic compound at 40 CFR 51.100(s), are to be excluded for the purposes of measuring the hourly emission rate as required in § 65.64(f) of subpart D of this part for process vents subject to subpart III, NNN, or RRR of part 60.

Total resource effectiveness index value or *TRE index value* means a calculated value used to determine whether control is required for a process vent. It is based on process vent flow rate, emission rate of regulated material, net heating value, and corrosion properties (halogenated compound content), as quantified by the equations given under § 65.64(h) of subpart D of this part.

Vapor balancing system means a piping system that is designed to collect regulated material vapors displaced from tank trucks or railcars during loading and to route the collected regulated material vapors to the storage vessel from which the liquid being loaded originated, or to another storage vessel connected by a common header; or to compress and route to a process or a fuel gas system the collected regulated material vapors.

Vapor-mounted seal means a continuous seal that is mounted so that there is a vapor space between the stored liquid and the bottom of the seal.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

§ 65.3 Compliance with standards and operation and maintenance requirements.

(a) *Requirements.* (1) Except as provided in paragraph (a)(2) of this section, the emission standards and established parameter ranges of this part shall apply at all times except during periods of startup, shutdown (as defined in § 65.2), malfunction, or nonoperation of the regulated source (or specific portion thereof) resulting in cessation of the emissions to which this part applies. However, if a startup, shutdown, malfunction, or period of nonoperation of one portion of a regulated 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 part during the startup, shutdown, malfunction, or

period of nonoperation. For example, if there is an over pressure in the reactor area, a storage vessel in a chemical manufacturing process unit would still be required to be controlled in accordance with subpart C of this part. Similarly, the degassing of a storage vessel would not affect the ability of a process vent to meet the requirements of subpart D or G of this part.

(2) Subpart F of this part shall apply at all times except during periods of startup or shutdown (as defined in § 65.2), malfunction, process unit shutdown (as defined in § 65.2), or nonoperation of the regulated source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which subpart F of this part applies.

(3) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with requirements of this part during times when emissions are being routed to such items of equipment, if the shutdown would contravene requirements of this part applicable to such items of equipment. The owner or operator shall not shut down CPMS during times when emissions are being routed to the equipment that are being monitored by the CPMS. Paragraph (a)(3) of this section does not apply if the item of equipment or CPMS is malfunctioning or if the owner or operator must shut down the equipment to avoid damage due to a contemporaneous startup, shutdown, or malfunction of the regulated source or portion thereof.

(4) During startups, shutdowns, and malfunctions when the emission standards of this part do not apply pursuant to paragraphs (a)(1) through (a)(3) of this section, the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions. For purposes of paragraph (a)(4) of this section, the term ''excess emissions'' means emissions in excess of those that would have occurred if there were no startup, shutdown, or malfunction and the owner or operator complied with the relevant provisions of this part. The measures to be taken shall be identified in the applicable startup, 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 regulated source. Backup control devices are not required but may be used if available. Paragraph (a)(4) of this section does not apply to Group 2A or Group 2B process vents.

(5) Malfunctions shall be corrected as soon as practical after their occurrence in accordance with the startup, shutdown, and malfunction plan required in § 65.6(a). Paragraph (a)(5) of this section does not apply to Group 2A or Group 2B process vents.

(6) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(b) *Compliance determination procedures.* (1) *Parameter monitoring: compliance with operating conditions.* The parameter monitoring data for emission points that are required to perform continuous monitoring shall be used to determine compliance with the required operating conditions for the monitored control devices or recovery devices. For each excursion except for excused excursions, and as provided for in paragraph (b)(4)(iii)(B) of this section the owner or operator shall be deemed to have failed to have applied the control in a manner that achieves the required operating conditions.

(2) *Parameter monitoring: Excursions.* An excursion is not a violation and in cases where continuous monitoring is required the excursion does not count toward the number of excused excursions, if the conditions of paragraphs (b)(2)(i) or (b)(2)(ii) of this section are met. Nothing in paragraph (b)(2) of this section shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of this part.

(i) During periods of startup, shutdown, or malfunction [and the source is operated during such periods in accordance with the source's startup, shutdown, and malfunction plan as required by § 65.6(a)], a monitoring parameter is outside its established range or monitoring data cannot be collected; or

(ii) During periods of nonoperation of the regulated source or portion thereof (resulting in cessation of the emissions to which the monitoring applies).

(3) *Operation and maintenance procedures.* Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan, if applicable, required in § 65.6(a), as applicable), review of operation and maintenance records, inspection of the regulated source, and alternatives approved as specified in § 65.7.

(4) *Emissions standards.* Paragraphs (b)(4)(i) through (b)(4)(iii) of this section shall govern the use of data, tests, and requirements to determine compliance with emissions standards. Paragraphs (b)(4)(i) through (b)(4)(iii) do not apply to Group 2A or Group 2B process vents. Compliance with design, equipment, work practice, and operating standards, including those for equipment leaks, shall be determined according to paragraph (a)(3) of this section.

(i) *Performance test.* The Administrator will determine compliance with emission standards of this part based on the results of performance tests conducted according to the procedures specified in subpart G of this part, unless otherwise specified in a subpart of this part.

(ii) *Operation and maintenance requirements.* The Administrator will determine compliance with emission standards of this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in subparts of this part.

(5) *Design, equipment, work practice, or operational standards.* Paragraphs (b)(5)(i) and (b)(5)(ii) do not apply to Group 2A or Group 2B process vents.

(i) *Records and inspection.* The Administrator will determine compliance with design, equipment, work practice, or operational emission standards requirements by review of records, inspection of the regulated source, and other procedures specified in this part.

(ii) *Operation and maintenance.* The Administrator will determine compliance with design, equipment, work practice, or operational standards by evaluation of an owner or operator's conformance with operation and maintenance requirements as specified in paragraph (a) of this section, in other subparts of this part, and in applicable provisions of § 65.6(b).

(c) *Finding of compliance.* The Administrator will make a finding concerning a regulated source's compliance with an emission standard or operating and maintenance requirement as specified in paragraphs (a) and (b) of this section upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

Standards in this part and methods of determining compliance are given in metric units followed by the equivalents in English units. The Administrator will make findings of compliance with the standards of this part using metric units.

(d) *Compliance times.* All terms that define a period of time for completion of required tasks (for example, weekly, monthly, quarterly, annually) unless specified otherwise in the section or paragraph that imposes the requirement refer to the standard calendar periods.

(1) Notwithstanding time periods specified for completion of required tasks, time periods may be changed by mutual agreement between the owner or operator and the Administrator as specified in § 65.5(h)(5) (for example, 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) When 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 paragraphs (d)(2)(i) or (d)(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 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 the task is conducted at a reasonable interval after completion of the task during the previous period.

§ 65.4 Recordkeeping.

(a) *Maintaining notifications, records, and reports.* Except as provided in paragraph (b) of this section, the owner or operator of each regulated source subject to this part shall keep copies of notifications, reports, and records required by this part for the length of time specified in paragraphs (a)(1) or (a)(2) of this section, as applicable.

(1) If an owner or operator is required to operate under a title V permit, then all applicable notifications, reports, and records shall be maintained for at least 5 years, unless a subpart of this part specifies a longer period.

(2) If an owner or operator is not required to operate under a title V permit, then all notifications, reports, and records required by this part shall be maintained for at least 2 years. If a subpart of this part specifies records to be maintained for a period different than 2 years, then those records shall be kept for that period.

(b) *Copies of reports.* If an owner or operator submits reports to the applicable EPA Regional Office, the owner or operator is not required to maintain copies of those reports. If the EPA Regional Office has waived the requirement of § 65.5(g)(1) for submittal of copies of reports, the owner or operator is not required to maintain copies of the waived reports. Paragraph (b) of this section applies only to reports and not the underlying records which must be maintained as specified throughout this part.

(c) *Availability of records.* All applicable records shall be maintained in such a manner that they can be readily accessed and are suitable for inspection as specified in paragraph (c)(1) or (c)(2) of this section.

(1) Except as specified in paragraph (c)(2) of this section, records of the most recent 2 years shall be retained onsite or shall be accessible to an inspector while onsite. The records of the remaining 3 years, where required, may be retained offsite.

(2) For sources referenced to this part from 40 CFR part 63, subpart G or H, the most recent 6 months of records shall be retained on site or shall be accessible to an inspector while onsite 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, where required, may be retained offsite.

(3) Records specified in paragraph (c)(1) or (c)(2) of this section may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, computer disk, magnetic tape, or microfiche.

§ 65.5 Reporting requirements.

(a) *Required reports.* Each owner or operator of a regulated source subject to this subpart shall submit the reports listed in paragraphs (a)(1) through (a)(6) of this section, as applicable.

(1) A *Notification of Initial Startup* described in paragraph (b) of this section.

(2) An *Initial Notification for Part 65 Applicability* described in paragraph (c) of this section.

(3) An *Initial Compliance Status Report* described in paragraph (d) of this section.

(4) *Periodic reports* described in paragraph (e) of this section.

(5) *Other reports.* Other reports shall be submitted as specified elsewhere in this part.

(6) *Startup, shutdown, and malfunction reports* described in § 65.6(c) of this subpart.

(b) *Notification of Initial Startup*—(1) *Contents.* Any owner or operator of a regulated source which elects to comply with this part at initial startup shall send the Administrator written notification of the actual date of initial startup of a regulated source.

(2) *Due date.* The notification of the actual date of initial startup shall be postmarked within 15 days after such date.

(c) *Initial Notification for Part 65 Applicability.* Owners or operators of regulated sources that have been subject to a 40 CFR part 60, 61, or 63 standard and who have chosen to comply with this part and who are not operating the regulated source under an approved title V permit shall notify the Administrator. The notice shall include the information specified in paragraphs (c)(1) through (c)(7) of this section, as applicable, and may accompany the application for a construction permit for the regulated source. This notification may be waived by the Administrator.

(1) Identification of the storage vessels subject to subpart C of this part.

(2) Identification of the process vents subject to subpart D of this part, including process vent group status as specified in § 65.62(a) of subpart D of this part.

(3) Identification of the process vents subject to 40 CFR part 60, subpart DDD complying with requirements of subpart G of this part.

(4) Identification of the transfer racks subject to subpart E of this part.

(5) For equipment leaks, identification of the process units subject to subpart F of this part.

(6) The proposed implementation schedule specified in § 65.1(f)(1) for sources identified in paragraphs (c)(1) through (c)(5) of this section, with the implementation schedule extending no longer than 3 years.

(7) *Process unit identification.* As an alternative to requirements specified in paragraphs (c)(1) through (c)(4), and (c)(6) of this section, the process units

can be identified instead of the individual pieces of equipment. For this alternative, the kind of emission point in the process unit that will comply must also be identified.

(d) *Initial Compliance Status Report*—(1) *Contents.* The owner or operator shall submit an Initial Compliance Status Report for each regulated source subject to this part containing the information specified in the subparts of this part. Unless the required information has already been submitted under requirements of the applicable referencing subpart, this information can be submitted as part of a title V permit application or amendment.

(2) *Due date.* The owner or operator shall submit the Initial Compliance Status Report for each regulated source 240 days after the applicable compliance date specified in the referencing subparts, or 60 days after the completion of the initial performance test or initial compliance determination, whichever is earlier. Initial compliance Status Reports may be combined for multiple regulated sources as long as the due date requirements for all sources covered in the combined report are met.

(e) *Periodic reports.* The owner or operator of a source subject to monitoring requirements of this part or to other requirements of this part where periodic reporting is specified, shall submit a periodic report.

(1) *Contents.* Periodic reports shall include all information specified in subparts of this part.

(2) *Due date.* The periodic report shall be submitted semiannually no later than 60 calendar days after the end of each 6-month period. The first report shall be submitted no later than the last day of the month that includes the date 8 months after the date the source became subject to this rule or since the last part 60, part 61, or part 63 periodic report was submitted for the applicable requirement, whichever is earlier.

(3) *Overlap with title V reports.* Information required by this part, which is submitted with a title V periodic report, need not also be included in a subsequent periodic report required by this part. The title V report shall be referenced in the periodic report required by this part.

(f) *General report content.* All reports and notifications submitted pursuant to this part, including reports that combine information from this part and a referencing subpart, shall include the information specified in paragraphs (f)(1) through (f)(4) of this section.

(1) The name, address, and telephone number (fax number may also be provided) of the owner or operator.

(2) The name, address and telephone number of the person to whom inquiries should be addressed, if different than the owner/operator.

(3) The address (physical location) of the reporting facility.

(4) Identification of each regulated source covered in the submission and identification of which subparts (referencing and part 65) options from this part are applicable to that regulated source. Summaries and groupings of this information are permitted.

(g) *Report and notification submission*—(1) *Submission.* All reports and notifications required under this part shall be sent to the Administrator at the appropriate EPA Regional Office and to the delegated State authority, except that requests for permission to use an alternative means of emission limitation as provided for in § 65.8(a) shall be submitted to the Director of the EPA Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, MD–10, Research Triangle Park, North Carolina, 27711. The EPA Regional Office may waive the requirement to receive a copy of any reports or notifications at its discretion.

(2) *Submission of copies.* If any State requires a notice that contains all the information required in a report or notification listed in this part, an owner or operator may send the appropriate EPA Regional Office a copy of the report or notification sent to the State to satisfy the requirements of this part for that report or notification.

(3) *Method of submission.* Wherever this subpart specifies ''postmark'' dates, submittals may be sent by methods other than the U.S. Mail (for example, by fax or courier). Submittals shall be sent on or before the specified date.

(4) *Submission by electronic media.* If acceptable to both the Administrator and the owner or operator of a source, reports may be submitted on electronic media.

(h) *Adjustment to timing of submittals and review of required communications*—(1) *Alignment with title V submission.* An owner or operator may submit periodic reports required by this part on the same schedule as the title V periodic report for the facility. The owner or operator using this option need not obtain prior approval, but must assure no reporting gaps from the last periodic report for the relevant standards. The owner or operator shall clearly identify the change in reporting schedule in the first report filed under paragraph (h) of this section. The requirements of paragraph (e) of this section are not waived when implementing this change.

(2) *Request for adjustment.* An owner or operator may arrange by mutual agreement (which may be a standing agreement) with the Administrator a common schedule on which periodic reports required by this part shall be submitted throughout the year as long as the reporting period is not extended. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practical before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted. A request for a change to the periodic reporting schedule need only be made once for every schedule change and not once for every semiannual report submitted.

(3) *Approval of request for adjustment.* If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) *Notification of delay.* If the Administrator is unable to meet a specified deadline, the owner or operator will be notified of any significant delay and informed of the amended schedule.

(i) An owner or operator shall report in a title V permit application or as otherwise specified by the permitting authority, the information listed in paragraphs (i)(1) through (i)(5) of this section.

(1) A list designating each emission point complying with subparts C through G of this part and whether each process vent is Group 1, Group 2A, or Group 2B.

(2) The control technology or method of compliance that will be applied to each emission point.

(3) A statement that the compliance demonstration, monitoring, inspection, recordkeeping, and reporting provisions in subparts C through G of this part that are applicable to each emission point will be implemented beginning on the date of compliance as specified in the referencing subpart.

(4) The monitoring information in § 65.162(e) of subpart G of this part if, for any emission point, the owner or operator of a source seeks to comply

through use of a control technique other than those for which monitoring parameters are specified in §§ 65.148 through 65.154 of subpart G of this part.

(5) Any requests for alternatives to the continuous operating parameter monitoring and recordkeeping provisions, as specified in § 65.162(d) of subpart G of this part.

§ 65.6 Startup, shutdown, and malfunction plan and procedures.

(a) Paragraphs (b) and (c) of this section do not apply to Group 2A or Group 2B process vents.

(b) *Startup, shutdown, and malfunction plan*—(1) *Description and purpose of plan.* The owner or operator of a regulated source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the regulated source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The plan shall also address routine or otherwise predictable CPMS malfunctions. This plan shall be developed by the owner or operator by the regulated source's implementation date as specified in § 65.1(f), or, for sources referenced from 40 CFR part 63, subpart F, by the compliance date specified in that subpart. The requirement to develop and implement this plan shall be incorporated into the source's title V permit. This requirement is optional for equipment that must comply with subpart F of this part. It is not optional for equipment equipped with a closed vent system and control device subject to subpart G of this part. The purpose of the startup, shutdown, and malfunction plan is described in paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(i) To ensure that owners or operators are prepared to correct malfunctions as soon as practical after their occurrence in order to minimize excess emissions of regulated material; and

(ii) To reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(2) *Operation of source.* During periods of startup, shutdown, and malfunction, the owner or operator of a regulated source shall operate and maintain such source (including associated air pollution control equipment and CPMS) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (b)(1) of this section.

(3) *Use of additional procedures.* To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the regulated source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(4) *Revisions to the plan.* Based on the results of a determination made under § 65.3(b)(3), the Administrator may require that an owner or operator of a regulated source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan is inadequate as specified in paragraphs (b)(4)(i) through (b)(4)(iv) of this section:

(i) Does not address a startup, shutdown, and malfunction event of the CPMS, the air pollution control equipment, or the regulated source that has occurred; or

(ii) Fails to provide for the operation of the regulated source (including associated air pollution control equipment and CPMS) during a startup, shutdown, and malfunction event in a manner consistent with good air pollution control practices for minimizing emissions to the extent practical; or

(iii) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable; or

(iv) Does not provide adequate measures to prevent or minimize excess emissions to the extent practical as specified in § 65.3(a)(4).

(5) *Additional malfunction plan requirements.* If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the regulated source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment or CPMS.

(c) *Startup, shutdown, and malfunction reporting requirements*—(1) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup, shutdown, and malfunction of a regulated source, or of a control device or monitoring system required for compliance (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan, then the owner or operator shall state such information in a startup, shutdown, and malfunction report. During the reporting period, reports shall only be required for startup, shutdown, and malfunction during which excess emissions occur. A startup, shutdown, and malfunction report can be submitted as part of a periodic report required under § 65.5(e), or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit. The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate), unless the information is submitted with the periodic report. The report shall include the information specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section.

(i) The name, title, and signature of the owner or operator or other responsible official certifying its accuracy.

(ii) The number of startup, shutdown, malfunction events and the total duration of all periods of startup, shutdown, and malfunction for the reporting period if the total duration amounts to either of the durations in paragraphs (c)(1)(ii)(A) or (c)(1)(ii)(B) of this section.

(A) Total duration of periods of inoperation or malfunctioning of a CPMS, as recorded in § 65.162(a)(2)(iii) of subpart G of this part, equal to or greater than 5 percent of that CPMS operating time for the reporting period; or

(B) Total duration of periods of startup, shutdown, and malfunction for a regulated source during which excess emission occur equal to or greater than 1 percent of that regulated source operating time for the reporting period.

(2) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for startup, shutdown, and malfunction reports under paragraph (c)(1) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a

malfunction) during which excess emissions occur is not consistent with the procedures specified in the regulated source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter delivered or postmarked within 7 working days after the end of the event. The immediate report required under this paragraph (c)(2) of this section shall contain the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Not withstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which a regulated source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under paragraph (c)(2) of this section are specified in § 65.5(h).

§ 65.7 Monitoring, recordkeeping, and reporting waivers and alternatives.

(a) *Waiver of recordkeeping or reporting requirements*—(1) *Waiver application.* The owner or operator may apply for a waiver from recordkeeping or reporting requirements if the regulated source is achieving the relevant standard(s), or the source is operating under an extension of compliance, under 40 CFR 63.6(i) or a waiver of compliance under 40 CFR 61.10(b), or the owner or operator has requested an extension or waiver of compliance and the Administrator is still considering that request. The waiver application shall be submitted in writing to the Administrator.

(2) *Extension of compliance request.* If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under 40 CFR 63.6(i) or the request for a waiver of compliance under 40 CFR 61.10(b), any required compliance progress report or compliance status report required in the source's title V permit application or a permit modification application, or a periodic report required under this part, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(3) *Approval or denial of waiver.* The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements when performing one of the actions described in paragraphs (a)(3)(i) through (a)(3)(iii) of this section:

(i) Approves or denies an extension of compliance under 40 CFR 63.6(i) or a waiver of compliance under 40 CFR 61.10(b); or

(ii) Makes a determination of compliance following the submission of a required compliance status report or periodic report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(4) *Waiver conditions.* A waiver of any recordkeeping or reporting requirement granted under paragraph (a) of this section may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(5) *Waiver cancellation.* Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the regulated source.

(b) *Requests for approval of alternative monitoring or recordkeeping.* An owner or operator may submit a written request for approval to use alternatives to the monitoring or recordkeeping provisions of this part. For process vents and transfer racks, except low-throughput transfer racks, the provisions in paragraph (c) of this section shall govern the review and approval of requests. In addition, the application shall include information justifying the owner or operator's request for an alternative monitoring or recordkeeping method, such as the technical or economic infeasibility, or the impracticality, of the regulated source using the required method. For storage vessels and low throughput transfer racks, owners and operators shall comply with the requirements of § 65.145(b) of subpart G of this part for preparing and submitting a design evaluation. For equipment leaks, owners and operators shall comply with the recordkeeping requirements of § 65.163(d) of subpart G of this part.

(c) *Approval or denial of request to use alternative monitoring or recordkeeping.* The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring or recordkeeping method within 90 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. Before disapproving any request to use an alternative method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with the items specified in paragraphs (c)(1) and (c)(2) of this section:

(1) Notice of the information and findings on which the intended disapproval is based; and

(2) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of the intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(d) *Use of an alternative monitoring or recordkeeping method.* (1) The owner or operator of a regulated source is subject to the monitoring and recordkeeping requirements of the relevant standard unless permission to use an alternative monitoring or recordkeeping method requested under paragraph (b) of this section or § 65.162(d) of subpart G of this part has been granted by the Administrator. Once an alternative is approved, the owner or operator shall use the alternative for the emission points or regulated sources cited in the approval and shall meet the monitoring and recordkeeping requirements of the relevant standard for all other emission points or regulated sources.

(2) If the Administrator approves the use of an alternative monitoring or recordkeeping method for a regulated source under paragraph (c) of this section, the owner or operator of such source shall continue to use the alternative monitoring or recordkeeping method unless he or she receives approval from the Administrator to use another method.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring or recordkeeping method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in the relevant standard. If the results of the specified and alternative methods, requirements, or procedures do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

§ 65.8 Procedures for approval of alternative means of emission limitation.

(a) *Alternative means of emission limitation.* An owner or operator may request a determination of equivalence for an alternative means of emission limitation to the requirements of design, equipment, work practice, or operational standards of this part. If, in the judgment of the Administrator, an alternative means of emission limitation will achieve a reduction in regulated material emissions at least equivalent to the reduction in emissions from that source achieved under any design, equipment, work practice, or operational standards (but not performance standards) in this part, the Administrator will publish in the **Federal Register** a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(1) The notice may condition the permission on requirements related to the operation and maintenance of the alternative means.

(2) Any such notice shall be published only after public notice and an opportunity for a hearing.

(b) *Content of submittal.* (1) In order to obtain approval, any person seeking permission to use an alternative means of compliance under this section shall collect, verify, and submit to the Administrator information showing that the alternative means achieves equivalent emission reductions. An owner or operator seeking permission to use an alternative means of compliance who has not previously performed testing shall also submit a proposed test plan. If the owner or operator seeks permission to use an alternative means of compliance based on previously performed testing, they shall submit the results of that testing, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring.

(2) The owner or operator who requests an alternative means of emission limitation shall submit a description of the proposed testing, monitoring, recordkeeping, and reporting that will be used and the proposed basis for demonstrating compliance.

(3) For storage vessels, the owner or operator shall include the results of actual emissions tests using full-size or scale-model storage vessels that accurately collect and measure all regulated material emissions using a given control technique, and that accurately simulate wind and account for other emission variables such as temperature and barometric pressure, or an engineering analysis that the Administrator determines is an accurate method of determining equivalence.

(4) For proposed alternatives to equipment leak requirements, the owner or operator shall also submit the information and meet the requirements for alternative means of emission limitation specified in § 65.102(b) of subpart F of this part (alternative means of emission limitation).

(c) Manufacturers of equipment used to control equipment leaks of a regulated material may request a determination of equivalence for an alternative means of emission limitation for equipment leaks, as specified in § 65.102(c) of this part.

(d) *Compliance.* If the Administrator makes a determination that a means of emission limitation is a permissible alternative to the requirements of design, equipment, work practice, or operational standards of this part, the owner or operator shall either comply with the alternative or comply with the requirements of this part.

§ 65.9 Availability of information and confidentiality.

(a) *Availability of information.* The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. With the exception of information protected under part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), initial compliance status report, periodic report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(b) *Confidentiality.* (1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

§ 65.10 State authority.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from adopting and enforcing any emission standard or limitation applicable to a regulated source, provided that such standard, limitation, prohibition, or other regulation is not less stringent than the standard applicable to such a regulated source.

(b) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from requiring the owner or operator of a regulated source to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such a regulated source.

§ 65.11 Circumvention.

(a) No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to those listed in paragraphs (a)(1) and (a)(2) of this section.

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere and;

(2) The fragmentation of an operation for the purpose of avoiding regulation by a relevant standard.

(b) *Prohibited activities.* (1) No owner or operator subject to the provisions of this part shall operate any regulated source in violation of the requirements of this part except under the provisions specified in paragraphs (b)(1)(i) through (b)(1)(iii):

(i) An extension or waiver of compliance granted by the Administrator under an applicable part; or

(ii) An extension of compliance granted under an applicable part by a State with an approved permit program; or

(iii) An exemption from compliance granted by the President under section 112(i)(4) of the Act.

(2) After the effective date of an approved permit program in a State, no owner or operator of a regulated source in that State who is required under an applicable part to obtain a title V permit shall operate such source except in compliance with the provisions of this part and the applicable requirements of the permit program in that State.

(3) An owner or operator of a regulated source who is subject to an emission standard promulgated under this part or a referencing part shall comply with the requirements of that standard by the date(s) established in the applicable subpart(s) (including this

subpart) regardless of whether the criteria specified in paragraph (b)(3)(i) or (b)(3)(ii) are met:

(i) A title V permit has been issued to that source; or

(ii) If a title V permit has been issued to that source, whether such permit has been revised or modified to incorporate the emission standard.

(c) *Severability.* Notwithstanding any requirement incorporated into a title V permit obtained by an owner or operator subject to the provisions of this part, the provisions of this part are federally enforceable.

§ 65.12 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under sections 111(c) and 112(l) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities that will not be delegated to States: § 65.8, § 65.46 of subpart C of this part, and § 65.102 of subpart F of this part.

§ 65.13 Incorporation by reference.

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the **Federal Register**. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capital Street, NW, suite 700, Washington, DC, at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M Street, SW., Washington, DC, and at the EPA Library (MD–35), U.S. EPA, Research Triangle Park, North Carolina.

(b) The materials listed below are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, Pennsylvania 19103; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

(1) ANSI B31.3—1996, Process Piping, IBR approved [Insert Effective Date of Final Rule] for § 65.2.

(2) ASTM D1946–77, 90, 94, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved [Insert Effective Date of Final Rule] for § 65.64(e)(2), § 65.147(b)(3)(ii).

(3) ASTM D2382–76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter [High-Precision Method]. IBR approved [Insert Effective Date of Final Rule] for § 65.64(e)(1), § 65.147(b)(3)(ii).

(4) ASTM D2879–93, 96, Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved [Insert Effective Date of Final Rule] for § 65.2.

§ 65.14 Addresses.

(a) All requests, reports, applications, notifications, and other communications submitted pursuant to this part, except as specified under § 65.5(g)(1) of this part, shall be sent to the Administrator at the appropriate EPA Regional Office indicated in the following list:

Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Air Management Division, U.S. Environmental Protection Agency, John F. Kennedy Federal Building, Boston, Massachusetts 02203.

Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 290 Broadway, New York, New York 10007.

Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 841 Chestnut Building, Philadelphia, Pennsylvania 19107.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 61 Forsyth Street, Atlanta, Georgia 30303.

Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air Management Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604–3507.

Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director; Air, Pesticides, and Toxics Division; U.S. Environmental Protection Agency, 1445 Ross Avenue, Dallas, Texas 75202.

Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Toxics Division, U.S. Environmental Protection Agency, 726 Minnesota Avenue, Kansas City, Kansas 66101.

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 999 18th Street, Suite 500, Denver, Colorado 80295.

Region IX (American Samoa, Arizona, California, Guam, Hawaii, Nevada), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, California 94105.

Region X (Alaska, Oregon, Idaho, Washington), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, Washington 98101.

(b) All information required to be submitted to the Administrator under this part also shall also be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The mailing addresses for State agencies are listed below:

State of Alabama, Air Pollution Control Division, Air Pollution Control Commission, 645 S. McDonough Street, Montgomery, Alabama 36104.

State of Alaska, Department of Environmental Conservation, 3220 Hospital Drive, Juneau, Alaska 99811.

Arizona Department of Health Services, 1740 West Adams Street, Phoenix, Arizona 85007.

State of Arkansas: Chief, Division of Air Pollution Control, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, P.O. Box 9583, Little Rock, Arkansas 72209.

California

Amador County Air Pollution Control District, P.O. Box 430, 810 Court Street, Jackson, California 95642.

Bay Area Air Pollution Control District, 939 Ellis Street, San Francisco, California 94109.

Butte County Air Pollution Control District, P.O. Box 1229, 316 Nelson Avenue, Oroville, California 95965.

Calaveras County Air Pollution Control District, Government Center, El Dorado Road, San Andreas, California 95249.

Colusa County Air Pollution Control District, 751 Fremont Street, Colusa, California 95952.

El Dorado Air Pollution Control District, 330 Fair Lane, Placerville, California 95667.

Fresno County Air Pollution Control District, 1221 Fulton Mall, Fresno, California 93721.

Glenn County Air Pollution Control District, P.O. Box 351, 720 North Colusa Street, Willows, California 95988.

Great Basin Unified Air Pollution Control District, 157 Short Street, suite 6, Bishop, California 93514.

Imperial County Air Pollution Control District, County Services Building, 939 West Main Street, El Centro, California 92243.

Kern County Air Pollution Control District, 1601 H Street, suite 250, Bakersfield, California 93301.

Kings County Air Pollution Control District, 330 Campus Drive, Hanford, California 93230.

Lake County Air Pollution Control District, 255 North Forbes Street, Lakeport, California 95453.

Lassen County Air Pollution Control District, 175 Russell Avenue, Susanville, California 96130.

Madera County Air Pollution Control District, 135 West Yosemite Avenue, Madera, California 93637.

Mariposa County Air Pollution Control District, Box 5, Mariposa, California 95338.

Mendocino County Air Pollution Control District, County Courthouse, Ukiah, California 94582.

Merced County Air Pollution Control District, P.O. Box 471, 240 East 15th Street, Merced, California 95340.

Modoc County Air Pollution Control District, 202 West 4th Street, Alturas, California 96101.

Monterey Bay Unified Air Pollution Control, 1164 Monroe Street, Suite 10, Salinas, California 93906.

Nevada County Air Pollution Control District, H.E.W. Complex, Nevada City, California 95959.

North Coast Unified Air Quality Management District, 5630 South Broadway, Eureka California 95501.

Northern Sonoma County Air Pollution Control District, 134 ''A'' Avenue, Auburn, California 95448.

Placer County Air Pollution Control District, 11491 ''B'' Avenue, Auburn, California 95603.

Camino del Rimedio, Santa Barbara, California 93110.

Shasta County Air Pollution Control District, 2650 Hospital Lane, Redding, California 96001.

Sierra County Air Pollution Control District, P.O. Box 286, Downieville, California 95936.

Siskiyou County Air Pollution Control District, 525 South Foothill Drive, Yreka, California 96097.

South Coast Air Quality Management District, 9150 Flair Drive, El Monte, California 91731.

Stanislaus County Air Pollution Control District, 1030 Scenic Drive, Modesto, California 95350.

Sutter County Air Pollution Control District, Sutter County Office Building, 142 Garden Highway, Yuba City, California 95991.

Tehama County Air Pollution Control District, P.O. Box 38, 1760 Walnut Street, Red Bluff, California 96080.

Tulare County Air Pollution Control District, County Civic Center, Visalia, California 93277.

Tuolumne County Air Pollution Control District, 9 North Washington Street, Sonora, California 95370.

Ventura County Air Pollution Control District, 800 South Victoria Avenue, Ventura, California 93009.

Yolo-Solano Air Pollution Control District, P.O. Box 1006, 323 First Street, i5, Woodland, California 95695.

State of Colorado, Department of Health, Air Pollution Control Division, 4210 East 11th Avenue, Denver, Colorado 80220.

State of Connecticut, Bureau of Air Management, Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, Connecticut 06106.

State of Delaware, Delaware Department of Natural Resources and Environmental Control, Tatnall Building, P.O. Box 1401, Dover, Delaware 19901.

Florida Bureau of Air Quality Management, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301.

State of Georgia, Environmental Protection Division, Department of Natural Resources, 270 Washington Street, SW., Atlanta, Georgia 30334.

Hawaii Department of Health, 1250 Punchbowl Street, Honolulu, Hawaii 96813.

Hawaii Department of Health (mailing address), Post Office Box 3378, Honolulu, Hawaii 96801.

Idaho Division of Environmental Quality, 601 Pole Line Rd. Ste. # 2 Twin Falls Idaho 83301.

Illinois Environmental Protection Agency—Bureau of Air, 1340 North Ninth St. Springfield, Illinois 62702, 1021 North Grand Avenue East (mailing address), P.O. Box 19276, 62794–9276.

State of Indiana, Indiana Department of Environmental Management, 105 South Meridian Street, P.O. Box 6015, Indianapolis, Indiana 46206.

State of Iowa: Iowa Department of Natural Resources, Environmental Protection Division, Henry A. Wallace Building, 900 East Grand, Des Moines, Iowa 50319.

State of Kansas: Kansas Department of Health and Environment, Bureau of Air Quality and Radiation Control, Forbes Field, Topeka, Kansas 66620.

Kentucky Division of Air Pollution Control, Department for Natural Resources and Environmental Protection, U.S. 127, Frankfort, Kentucky 40601.

State of Louisiana: Program Administrator, Air Quality Division, Louisiana Department of Environmental Quality, P.O. Box 44096, Baton Rouge, Louisiana 70804.

State of Maine, Bureau of Air Quality Control, Department of Environmental Protection, State House, Station No. 17, Augusta, Maine 04333.

State of Maryland, Bureau of Air Quality and Noise Control, Maryland State Department of Health and Mental Hygiene, 201 West Preston Street, Baltimore, Maryland 21201.

Commonwealth of Massachusetts, Division of Air Quality Control, Department of Environmental Protection, One Winter Street, 7th floor, Boston, Massachusetts 02108.

State of Michigan, Air Pollution Control Division, Michigan Department of Natural Resources, Stevens T. Mason Building, 8th Floor, Lansing, Michigan 48926.

Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road, St. Paul, Minnesota 55155.

Bureau of Pollution Control, Department of Natural Resources, P.O. Box 10385, Jackson, Mississippi 39209.

State of Missouri: Missouri Department of Natural Resources, Division of Environmental Quality, P.O. Box 176, Jefferson City, Missouri 65102.

State of Montana, Department of Health and Environmental Services, Air Quality Bureau, Cogswell Building, Helena, Montana 59601.

State of Nebraska, Nebraska Department of Environmental Control, P.O. Box 94877, State House Station, Lincoln, Nebraska 68509.

Nevada Department of Conservation and Natural Resources, Division of Environmental Protection, 201 South Fall Street, Carson City, Nevada 89710.

State of New Hampshire, Air Resources Division, Department of Environmental Services, 64 North Main Street, Caller Box 2033, Concord, New Hampshire 03302–2033.

State of New Jersey: New Jersey Department of Environmental Protection, John Fitch Plaza, P.O. Box 2807, Trenton, New Jersey 08625.

State of New Mexico: Director, New Mexico Environmental Improvement Division, Health and Environment Department, 1190 St. Francis Drive, Santa Fe, New Mexico 87503.

New York: New York State Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233, Attention: Division of Air Resources.

North Carolina Environmental Management Commission, Department of Environment and Natural Resources, Division of Air Quality, P.O. Box 29580, Raleigh, North Carolina 27626–0580.

State of North Dakota, State Department of Health and Consolidated Laboratories, Division of Environmental Engineering, State Capitol, Bismarck, North Dakota 58505.

State of Ohio, Ohio Environmental Protection Agency, Central District Office, Air Pollution Unit, P.O. Box 1049, Columbus, Ohio 43266–0149.

State of Oklahoma, Oklahoma State Department of Health, Air Quality Service, P.O. Box 53551, Oklahoma City, Oklahoma 73152.

State of Oregon, Department of Environmental Quality, Yeon Building, 522 SW. Fifth, Portland, Oregon 97204.

Commonwealth of Pennsylvania: Department of Environmental Resources, Post Office Box 2063, Harrisburg, Pennsylvania 17120.

State of Rhode Island, Division of Air and Hazardous Materials, Department of Environmental Management, 291 Promenade Street, Providence, Rhode Island 02908.

State of South Carolina, Office of Environmental Quality Control, Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201.

State of South Dakota, Department of Water and Natural Resources, Office of Air Quality and Solid Waste, Joe Foss Building, 523 East Capitol, Pierre, South Dakota 57501–3181.

Division of Air Pollution Control, Tennessee Department of Public Health, 256 Capitol Hill Building, Nashville, Tennessee 37219.

State of Texas, Texas Air Control Board, 6330 Highway 290 East, Austin, Texas 78723.

State of Utah, Department of Health, Bureau of Air Quality, 288 North 1460 West, P.O. Box 16690, Salt Lake City, Utah 84116–0690.

State of Vermont, Air Pollution Control Division, Agency of Natural Resources, Building 3 South, 103 South Main Street, Waterbury, Vermont 05676.

Commonwealth of Virginia, Virginia State Air Pollution Control Board, Room 1106, Ninth Street Office Building, Richmond, Virginia 23219.

State of Washington, Department of Ecology, Olympia, Washington 98504.

State of West Virginia: Air Pollution Control Commission, 1558 Washington Street, East, Charleston, West Virginia 25311.

Wisconsin Department of Natural Resources, P.O. Box 7921, Madison, Wisconsin 53707.

Wyoming Department of Environmental Quality Air Division, 122 West 25th St.—4th Floor Cheyenne, Wyoming 82002.

§§ 65.15—65.19 [Reserved]

Table 1 To Subpart A—Applicable 40 CFR Parts 60, 61, and 63 General Provisions

40 CFR part 60 subpart A provisions for referencing subparts Ka, Kb, VV, DDD, III, NNN, and RRR	40 CFR part 61 subpart A provisions for referencing subparts Y, V, and BB	40 CFR part 63 subpart A provisions for referencing subparts G and H
§ 60.1	§ 61.01	§ 63.5 (a)(1), (a)(2), (b), (d)(1)(ii), (d)(3)(i)[a], (d)(3)(iii),[a] (d)(3)(iv)[a], (d)(3)(v), (d)(3)(vi)[a], (d)(4), (e), (f)(1), and (f)(2).
§ 60.2	§ 61.02	
§ 60.5	§ 61.02	§ 63.6 (a) (b)(3), (c)(5), (i)(1), (i)(2), (i)(4)(i)(A), (i)(5) through (i)(14), (i)(16) and (j).
§ 60.6	§ 61.05	
§ 60.7(a)(1), and (a)(4)	§ 61.06	§ 63.9(a)(2), (b)(4)(i)[b], (b)(4)(ii), (b)(4)(iii), (b)(5)[b], (c) and (d) § 63.10 (d)(4) § 63.12(b).
§ 60.14	§ 61.07	
§ 60.15	§ 61.08	
§ 60.16	§ 61.10 (b) and (c)	
	§ 61.11	
	§ 61.15	

[a] These provisions do not apply to equipment leaks.
[a] The notifications specified in §§ 63.9(b)(4)(i) and 63.9(b)(5) shall be submitted at the times specified in 40 CFR part 65.

Subpart B—[Reserved]

Subpart C—Storage Vessels

§ 65.40 Applicability.

(a) The provisions of this subpart and of subpart A of this part apply to control of regulated material emissions from storage vessels where a referencing subpart references the use of this subpart for such emissions control.

(b) If a physical or process change is made that causes a storage vessel to fall outside the criteria in the referencing subpart that required the storage vessel to control emissions of regulated material, the owner or operator may elect to no longer comply with the provisions of this subpart. Instead, the owner or operator shall comply with any applicable provisions of the referencing subpart.

§ 65.41 Definitions.

All terms used in this subpart shall have the meaning given them in the Act and in subpart A of this part. If a term is defined in both subpart A of this part and in other subparts that reference the use of this subpart, the term shall have the meaning given in subpart A of this part for purposes of this subpart.

§ 65.42 Control requirements.

(a) For each storage vessel to which this subpart applies, the owner or operator shall comply with the requirements of paragraphs (b) or (c) of this section.

(b) For each storage vessel storing a liquid for which the maximum true vapor pressure of the total regulated material in the liquid is less than 76.6 kilopascals (10.9 pounds per square inch), the owner or operator shall reduce regulated material emissions to the atmosphere as provided in paragraphs (b)(1), (b)(2), (b)(3), (b)(4), (b)(5), (b)(6), or (b)(7) of this section.

(1) *Internal floating roof (IFR).* Operate and maintain a fixed roof and internal floating roof meeting the requirements of § 65.43.

(2) *External floating roof (EFR).* Operate and maintain an external floating roof meeting the requirements of § 65.44.

(3) *EFR converted to IFR.* Operate and maintain an external floating roof converted to an internal floating roof meeting the requirements of § 65.45.

(4) *Closed vent system and flare.* Operate and maintain a closed vent system and flare as specified in § 65.142(a)(1) of subpart G of this part. Periods of planned routine maintenance of the flare during which the flare does not meet the specifications of § 65.147 of subpart G of this part shall not exceed 240 hours per year. The specifications and requirements in § 65.147 of subpart G of this part for flares do not apply during periods of planned routine maintenance or during a control system malfunction. The owner or operator shall report the periods of planned routine maintenance as specified in § 65.166(d) of subpart G of this part.

(5) *Closed vent system and control device.* Operate and maintain a closed vent system and control device as specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section and § 65.142(a)(2) of subpart G of this part.

(i) Except as provided in paragraph (a)(1)(ii) of this section, the control device shall be designed and operated to reduce inlet emissions of regulated material by 95 percent or greater.

(ii) For owners or operators referenced to this part from 40 CFR part 63, subpart G, and if the owner or operator of a storage vessel can demonstrate that a control device installed on the storage vessel on or before December 31, 1992 is designed to reduce inlet emissions of total organic HAP by greater than or equal to 90 percent but less than 95 percent, then the control device is

required to be operated to reduce inlet emissions of total organic HAP by 90 percent or greater.

(iii) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of paragraph (b)(5)(i) of this section, shall not exceed 240 hours per year. The owner or operator shall report the periods of planned routine maintenance as specified in § 65.166(b) of subpart G of this part.

(iv) The requirements in paragraph (b)(5)(i) of this section for control devices do not apply during periods of planned routine maintenance or during a control system malfunction.

(6) *Route to process or fuel gas system.* Route the emissions to a process or a fuel gas system as specified in § 65.142(a)(3) of subpart G of this part. Whenever the owner or operator bypasses the fuel gas system or process, the owner or operator shall comply with the recordkeeping requirement in § 65.163(b)(3) of subpart G of this part. Bypassing is permitted if the owner or operator complies with one or more of the conditions specified in paragraphs (b)(6)(i) through (b)(6)(iii) of this section.

(i) The liquid level in the storage vessel is not increased;

(ii) The emissions are routed through a closed vent system to a control device complying with paragraph (b)(4) or (b)(5) of subpart C of this part; or

(iii) The total aggregate amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except startups/shutdowns/malfunctions or product changeovers of flexible operation units and periods when the storage vessel has been emptied and degassed), does not exceed 240 hours.

(7) *Equivalent requirements.* Comply with an equivalent to the requirements in paragraph (b)(1), (b)(2), (b)(3), (b)(4), (b)(5), or (b)(6) of this section, as provided in § 65.46.

(c) For each storage vessel storing a liquid for which the maximum true vapor pressure of the total regulated material in the liquid is greater than or equal to 76.6 kilopascals (10.9 pounds per square inch), the owner or operator shall meet the requirements in paragraph (b)(4), (b)(5), or (b)(6) of this section, or equivalent as provided in § 65.46.

§ 65.43 Fixed roof with an internal floating roof (IFR).

(a) *IFR design requirements.* The owner or operator who elects to control storage vessel regulated material emissions by using a fixed roof and an internal floating roof shall comply with the design requirements in paragraphs (a)(1) through (a)(4) of this section.

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

(2) Except as provided in paragraph (a)(3) of this section, the internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the floating roof edge and shall consist of one of the devices listed in paragraph (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(i) A liquid-mounted seal.

(ii) A metallic shoe seal.

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

(3) If the internal floating roof is equipped with a vapor-mounted seal as of December 31, 1992, paragraph (a)(2) of this section does not apply until the next time the storage vessel is emptied and degassed or by April 22, 2004, whichever occurs first.

(4) Except as provided in paragraph (a)(4)(viii) of this section, each internal floating roof shall meet the specifications listed in paragraphs (a)(4)(i) through (a)(4)(vii) of this section.

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

(ii) Except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains, each opening shall be equipped with a gasketed cover or gasketed lid.

(iii) Each penetration of the internal floating roof shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

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

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

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

(vii) Covers on each access hatch and each gauge float well shall be designed to be bolted or fastened when they are closed.

(viii) If the internal floating roof does not meet any one of the specifications listed in paragraphs (a)(4)(i) through (a)(4)(vii) of this section as of December 31, 1992, the requirement for meeting those specifications does not apply until the next time the storage vessel is emptied and degassed or by April 22, 2004, whichever occurs first.

(b) *IFR operational requirements.* The owner or operator using a fixed roof and an internal floating roof shall comply with the operational requirements in paragraphs (b)(1) through (b)(4) of this section.

(1) The internal floating roof shall float on the stored liquid surface at all times except when the floating roof must be supported by the leg supports.

(2) When the floating roof is resting on the leg supports, the process of filling or refilling shall be continuous and shall be accomplished as soon as practical and the owner or operator shall maintain the record specified in § 65.47(e).

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

(4) Each cover, access hatch, gauge float well, or lid on any opening in the internal floating roof shall be maintained in a closed position at all times (i.e., no visible gaps) except when the device is in actual use. Prior to filling the storage vessel, rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(c) *IFR inspection requirements.* To demonstrate compliance, the owner or operator shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service) according to paragraphs (c)(1) through (c)(4) of this section and maintain records of the IFR inspection results as specified in § 65.47(c)(1).

(1) *Single seal.* For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section.

(i) Visually inspect for IFR type A failures the internal floating roof and the seal through manholes and roof hatches on the fixed roof no less frequently than once every 12 months.

(ii) Visually inspect for IFR type B failures the internal floating roof, the seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied, but no less frequently than once every 10 years.

(2) *Double seal.* For vessels equipped with two continuous seals mounted one above the other, the owner or operator shall perform either the inspection

required in paragraph (c)(2)(i) of this section or the inspections required in paragraph (c)(2)(ii) of this section.

(i) Visually inspect for IFR type B failures the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied, but no less frequently than once every 5 years; or

(ii) Visually inspect the internal floating roof and the other components as specified in paragraphs (c)(2)(ii)(A) and (c)(2)(ii)(B) of this section.

(A) For IFR type A failures, inspect the secondary seal through manholes and roof hatches on the fixed roof no less frequently than once every 12 months; and

(B) For IFR type B failures, inspect the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the vessel is emptied, but no less frequently than once every 10 years.

(3) For inspections to determine if any IFR type B failures are present as required by paragraphs (c)(1)(ii), (c)(2)(i), and (c)(2)(ii)(B) of this section, the owner or operator shall comply with the refilling notification requirements specified in § 65.48(c)(1).

(4) After installing the control equipment required to comply with § 65.42(b)(1) or (b)(3), visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service) prior to filling the storage vessel with regulated material. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric, or defects in the internal floating roof, the owner or operator shall repair the items before filling the storage vessel.

(d) *IFR repair requirements.* The owner or operator shall repair any observed or determined failures, according to paragraphs (d)(1) and (d)(2) of this section.

(1) If an IFR type A failure is observed, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 calendar days. If the failure cannot be repaired within 45 calendar days or if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each and keep the records specified in § 65.47(d).

(2) If an IFR type B failure is determined, the owner or operator shall repair the items and comply with the refilling notification requirements of § 65.48(c)(1) before refilling the storage vessel with regulated material.

§ 65.44 External floating roof (EFR).

(a) *EFR design requirements.* The owner or operator who elects to control storage vessel regulated material emissions by using an external floating roof shall comply with the design requirements listed in paragraphs (a)(1) through (a)(3) of this section.

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

(2) The external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge.

(i) Except as provided in paragraph (a)(2)(iii) of this section, the closure device is to consist of two continuous seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal.

(ii) Except as provided in paragraph (a)(2)(iv) of this section, the primary seal shall be either a metallic shoe seal or a liquid-mounted seal.

(iii) If the external floating roof is equipped with a liquid-mounted or metallic shoe primary seal as of December 31, 1992, the requirement for a secondary seal in paragraph (a)(2)(i) of this section does not apply until the next time the storage vessel is emptied and degassed or by April 22, 2004 whichever occurs first.

(iv) If the external floating roof is equipped with a vapor-mounted primary seal and a secondary seal as of December 31, 1992 the requirement for a liquid-mounted or metallic shoe primary seal in paragraph (a)(2)(ii) of this section does not apply until the next time the storage vessel is emptied and degassed or by April 22, 2004, whichever occurs first.

(3) The external floating roof shall meet the specifications listed in paragraphs (a)(3)(i) through (a)(3)(xiii) of this section.

(i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in the noncontact external floating roof shall provide a projection below the stored liquid surface except as provided in paragraph (a)(3)(xiii) of this section.

(ii) Covers on each access hatch and each gauge float well shall be designed to be bolted or fastened when they are closed.

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

(iv) Automatic bleeder vents and rim space vents shall be equipped with a gasket.

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

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

(vii) Except for antirotational devices equipped with a welded cap, each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(viii) Each slotted guide pole shall be equipped with a gasketed float or other device that closes off the stored liquid surface from the atmosphere.

(ix) Each gauge hatch/sample well shall be equipped with a gasketed cover.

(x) Where a metallic shoe seal is in use as the primary seal, one end of the metallic shoe shall be designed to extend into the stored liquid and the other end shall extend a minimum vertical distance of 61 centimeters (24 inches) above the stored liquid surface.

(xi) The secondary seal shall be designed to be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall.

(xii) For the primary and secondary seals, there shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(xiii) If each opening in a noncontact external floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents does not provide a projection below the liquid surface as of December 31, 1992 the requirement for providing these projections below the liquid surface does not apply until the next time the storage vessel is emptied and degassed or by April 22, 2004, whichever occurs first.

(b) *EFR operational requirements.* The owner or operator using an external floating roof shall comply with the operational requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) The external floating roof shall float on the stored liquid surface at all times except when the floating roof must be supported by the leg supports.

(2) When the floating roof is resting on the leg supports, the process of filling or refilling shall be continuous and shall be accomplished as soon as practical and the owner or operator shall maintain the record specified in § 65.47(e).

(3) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening shall be maintained in a closed position (i.e., no

visible gap) at all times except when the device is in actual use.

(4) Covers on each access hatch and each gauge float well shall be bolted or fastened when they are closed.

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

(6) Rim space vents are to be set to open only when the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(7) The cap on the end of each unslotted guide pole shall be closed at all times except when gauging the stored liquid level or taking samples of the stored liquid.

(8) The cover on each gauge hatch/sample well shall be closed at all times except when the hatch or well must be open for access.

(9) Except during the inspections required by paragraph (c) of this section, both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion.

(c) *EFR inspection requirements.* To demonstrate compliance for an external floating roof vessel, the owner or operator shall use the procedures in paragraphs (c)(4) through (c)(9) of this section for seal gaps according to the frequency specified in paragraphs (c)(1) through (c)(3) of this section and meet the requirements of (c)(10).

(1) Measurements of gaps between the vessel wall and the primary seal shall be performed no less frequently than once every 5 years and at the times specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section. The owner or operator shall maintain records of the EFR seal gap measurements as specified in § 65.47(c)(2).

(i) During the hydrostatic testing of the vessel, by initial startup, or within 90 days of the initial fill with regulated material.

(ii) For an external floating roof vessel equipped with a liquid-mounted or metallic shoe primary seal and without a secondary seal as provided for in paragraph (a)(2)(iii) of this section, measurements of gaps between the vessel wall and the primary seal shall be performed at least once per year until a secondary seal is installed. When a secondary seal is installed above the primary seal, measurements of gaps between the vessel wall and both the primary and secondary seals shall be performed within 90 calendar days of installation of the secondary seal and according to the frequency specified in paragraphs (c)(1) through (c)(3) of this section thereafter.

(2) Measurements of gaps between the vessel wall and the secondary seal shall be performed no less frequently than once per year and within 90 days of the initial fill with regulated material, within 90 days of installation of the secondary seal, or by initial startup. The owner or operator shall maintain records of the EFR seal gap measurements as specified in § 65.47(c)(2).

(3) If any storage vessel ceases to store regulated material for a period of 1 year or more, measurements of gaps between the vessel wall and the primary seal, and gaps between the vessel wall and the secondary seal shall be performed within 90 days of the vessel being refilled with regulated material. The owner or operator shall maintain records of the EFR seal gap measurements as specified in § 65.47(c)(2).

(4) If the tank contains regulated material, all primary seal inspections or gap measurements that require the removal or dislodging of the secondary seal shall be accomplished as soon as possible, and the secondary seal shall be replaced as soon as possible.

(5) The owner or operator shall notify the Administrator 30 days before any EFR seal gap measurement as specified in § 65.48(c)(2).

(6) Except as provided in paragraph (d) of this section, the owner or operator shall determine gap widths and gap areas in the primary and secondary seals (seal gaps) individually by the procedures described in paragraphs (c)(6)(i) through (c)(6)(iii) of this section.

(i) Seal gaps, if any, shall be measured at one or more floating roof levels when the roof is not resting on the roof leg supports.

(ii) Seal gaps, if any, shall be measured around the entire circumference of the vessel in each place where a 0.32 centimeter (1/8 inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the storage vessel. The circumferential distance of each such location shall also be measured.

(iii) The total surface area of each gap described in paragraph (c)(6)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the vessel wall to the seal and multiplying each such width by its respective circumferential distance.

(7) The owner or operator shall add the gap surface area of each gap location for the primary seal and divide the sum by the nominal diameter of the vessel. The owner or operator shall include the calculations in the record of the seal gap measurement as specified in § 65.47(c)(2). For metallic shoe primary seals or liquid-mounted primary seals, the accumulated area of gaps between the vessel wall and the primary seal shall not exceed 212 square centimeters per meter of vessel diameter (10.0 square inches per foot of vessel diameter) and the width of any portion of any gap shall not exceed 3.81 centimeters (1.50 inches).

(8) The owner or operator shall add the gap surface area of each gap location for the secondary seal and divide the sum by the nominal diameter of the vessel. The owner or operator shall include the calculations in the record of the seal gap measurement as specified in § 65.47(c)(2). The accumulated area of gaps between the vessel wall and the secondary seal used in combination with a metallic shoe seal or liquid-mounted primary seal shall not exceed 21.2 square centimeters per meter of vessel diameter (1.00 square inch per foot of vessel diameter) and the width of any portion of any gap shall not exceed 1.27 centimeters (0.50 inch). The secondary seal gap requirements may be exceeded during the measurement of primary seal gaps as required by paragraph (c)(1) of this section.

(9) If the owner or operator determines that it is unsafe to perform the seal gap measurements or to inspect the vessel to determine compliance because the floating roof appears to be structurally unsound and poses an imminent or potential danger to inspecting personnel, the owner or operator shall comply with the requirements in either paragraph (c)(9)(i) or (c)(9)(ii) of this section.

(i) The owner or operator shall measure the seal gaps or inspect the storage vessel no later than 30 calendar days after the determination that the roof is unsafe; or

(ii) The owner or operator shall empty and remove the storage vessel from service no later than 45 calendar days after determining that the roof is unsafe. If the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each and comply with the recordkeeping requirements in § 65.47(d).

(10) The owner or operator shall visually inspect for EFR failures of the external floating roof, the primary seal, secondary seal, and fittings prior to initial filling and each time the vessel is emptied (including initially before the vessel is filled with regulated material), shall maintain records of the EFR

inspection results as specified in § 65.47(c)(1), and shall comply with the refilling notification requirements specified in § 65.48(c)(1).

(d) *EFR repair requirements.* (1) The owner or operator shall repair conditions that do not meet seal gap specifications listed in paragraphs (c)(7) and (c)(8) of this section or any EFR failure observed by the inspection required by paragraph (c)(10) of this section no later than 45 calendar days after identification, or shall empty and remove the storage vessel from service no later than 45 calendar days after identification. If the vessel cannot be repaired or emptied within 45 calendar days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each and comply with the recordkeeping requirements in § 65.47(d).

(2) If an EFR failure is observed by the inspection required by paragraph (c)(10) of this section, the owner or operator shall repair the items as necessary so that none of the conditions specified in that paragraph exist before filling or refilling the storage vessel with regulated material.

§ 65.45 External floating roof converted into an internal floating roof.

The owner or operator who elects to control storage vessel regulated material emissions by using an external floating roof converted into an internal floating roof shall comply with the internal floating roof requirements of § 65.43 except § 65.43(a)(3), (b)(2), and (b)(3) and the external floating roof deck fitting requirements of § 65.44 except § 65.44(a)(1), (a)(2), (b)(1), (b)(8), (b)(9), (c), and (d), including the recordkeeping and reporting provisions referenced therein.

§ 65.46 Alternative means of emission limitation.

Any person seeking permission to use an alternative means of compliance under this section shall use the procedures of § 65.8 of subpart A of this part.

§ 65.47 Recordkeeping provisions.

(a) *Retention time.* Each owner or operator of a storage vessel subject to this subpart shall meet the requirements of § 65.4 of subpart A of this part, except the record specified in paragraph (b) of this section shall be kept as long as the storage vessel is in operation.

(b) *Vessel dimensions and capacity.* Each owner or operator of a storage vessel subject to this subpart shall keep readily accessible records showing the dimensions of the storage vessel and an analysis of the capacity of the storage vessel.

(c) *Inspection results.* The owner or operator shall keep the following records as specified in paragraphs (c)(1) and (c)(2) of this section.

(1) For each IFR or EFR inspection required by § 65.43(c)(1) and (c)(2) or § 65.44(c)(10), respectively, a record containing the information listed in paragraph (c)(1)(i) or (c)(1)(ii) of this section, as appropriate.

(i) In the event that no IFR type A failure, IFR type B failure, or EFR failure is observed, a record showing that the inspection was performed. The record shall identify the storage vessel on which the inspection was performed, the date the storage vessel was inspected, and references indicating which items were inspected.

(ii) In the event that an IFR type A failure, IFR type B failure, or EFR failure is observed, a record that identifies the storage vessel on which the inspection was performed, the date the storage vessel was inspected, a description of the failure and of the repair made, the date the vessel was emptied (if applicable), and the date that the repair was made. As specified in § 65.48(b)(1), the owner or operator shall include this record in the periodic report.

(2) For each EFR seal gap measurement required by § 65.44(c)(1), (c)(2) or (c)(3), a record describing the results of the measurement. The record shall identify the vessel on which the measurement was performed, shall include the date of the measurement, the raw data obtained in the measurement, and the calculations described in § 65.44(c)(7) and (c)(8), and shall meet any additional requirements in paragraph (c)(2)(i) or (c)(2)(ii) of this section, as appropriate.

(i) In the event that the seal gap measurements do conform to the specifications in § 65.44(c)(7) and (c)(8), the owner or operator shall submit the information specified in § 65.48(b)(2)(i) in the periodic report.

(ii) In the event that the seal gap measurements do not conform to the specifications in § 65.44(c)(7) and (c)(8), the owner or operator shall also keep a description of the repairs that were made, the date the repairs were made, and the date the storage vessel was emptied and shall include a report of the seal gap measurement results in the periodic report as specified in § 65.48(b)(2)(ii).

(d) *Emptying and repairing extension.* The owner or operator who elects to utilize an extension in emptying a storage vessel for purposes of repair shall prepare by the initiation of the extension the documentation as specified in paragraph (d)(1) or (d)(2) of this section, as appropriate, of the decision to utilize an extension.

(1) For an extension pursuant to § 65.43(d)(1) or § 65.44(d)(1), a description of the failure, documentation that alternative storage capacity is unavailable, and a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical. As specified in § 65.48(b)(1)(i), the owner or operator shall include this information in the periodic report.

(2) For an extension pursuant to § 65.44(c)(9), an explanation of why it was unsafe to perform the inspection or seal gap measurement, documentation that alternate storage capacity is unavailable, and a schedule of actions that will ensure that the vessel will be emptied as soon as practical. As specified in § 65.48(b)(3), the owner or operator shall include this information in the periodic report.

(e) *Floating roof set on its legs.* The owner or operator shall maintain a record for each storage vessel subject to §§ 65.43(b)(2) and 65.44(b)(2) identifying the date when the floating roof was set on its legs and the date when the roof was refloated. The record shall also indicate whether this was a continuous operation.

§ 65.48 Reporting provisions.

(a) *Notification of initial startup.* If § 65.5(b) of subpart A of this part requires that a notification of initial startup be filed, then the content of the notification of initial startup shall at least include the information specified in § 65.5(b) of subpart A of this part and the identification of each storage vessel, its capacity, and the types of regulated material stored in the storage vessel.

(b) *Periodic reports.* Report the information specified in paragraphs (b)(1) through (b)(3) of this section, as applicable, in the periodic report specified in § 65.5(e) of subpart A of this part.

(1) *Inspection results.* Report the information specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section for each inspection conducted in accordance with §§ 65.43(c) and 65.44(c) in which an IFR or EFR failure is detected in the control equipment.

(i) If an IFR type A failure or an EFR failure is observed for vessels for which inspections are required under § 65.43(c)(1)(i), § 65.43(c)(2)(ii)(A), or § 65.44(c)(10), each report shall include a copy of the inspection results record listed in § 65.47(c)(1)(ii). If an extension is utilized in accordance with § 65.43(d)(1) or § 65.44(d)(1), the report shall include the copy of the records listed in § 65.47(c)(1)(ii) plus the

documentation specified in § 65.47(d)(1).

(ii) If an IFR type B failure is observed for vessels for which inspections are required under § 65.43(c)(1)(ii), (c)(2)(i), or (c)(2)(ii)(B), each report shall include a copy of the records listed in § 65.47(c)(1)(ii).

(2) *Seal gap measurements results.* (i) For each vessel whose seal gaps are measured during the reporting period, identify each seal gap measurement made in accordance with § 65.44(c) in which the requirements of § 65.44(c)(7) or (c)(8) are met.

(ii) For each seal gap measurement made in accordance with § 65.44(c) in which the requirements of § 65.44(c)(7) or (c)(8) are not met, from the records kept pursuant to § 65.47(c)(2) report the date of the measurements, results of the calculations, and note which seal gap measurements did not conform to the specifications in § 65.44(c)(7) and (c)(8).

(3) *Extension documentation.* If an extension is utilized in accordance with § 65.44(c)(9), the owner or operator shall include the documentation specified in § 65.47(d)(2) in the next report required by § 65.5(e) of subpart A of this part.

(c) *Special notifications.* An owner or operator who elects to comply with § 65.43, § 65.44, or § 65.45 shall submit, as applicable, the reports specified in paragraphs (c)(1) and (c)(2) of this section except as specified in paragraph (c)(3) of this section. Each written notification or report shall also include the information specified in § 65.5(f) of subpart A of this part.

(1) *Refilling notification.* In order to afford the Administrator the opportunity to have an observer present, notify the Administrator prior to refilling of a storage vessel that has been emptied. If the storage vessel is equipped with an internal floating roof as specified in § 65.43, an external floating roof as specified in § 65.44, or an external floating roof converted to an internal floating roof as specified in § 65.45, the notification shall meet the requirements of either paragraph (c)(1)(i) or (c)(1)(ii) of this section, as applicable.

(i) Notify the Administrator in writing at least 30 calendar days prior to the refilling of each storage vessel; or

(ii) If the inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel, the owner or operator shall notify the Administrator as soon as practical, but no later than 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to refilling.

(2) *Seal gap measurement notification.* In order to afford the Administrator the opportunity to have an observer present, the owner or operator of a storage vessel equipped with an external floating roof as specified in § 65.44 shall notify the Administrator in writing 30 calendar days in advance of any seal gap measurements.

(3) *Notification waiver.* Where a notification required by paragraph (c)(1) or (c)(2) of this section is sent to a delegated State or local agency, a copy of the notification to the Administrator is not required. A delegated State or local agency may waive the requirements for these notifications.

(d) *Compliance certification.* For sources subject to the compliance certification provisions of title V, a recertification of continuous compliance with §§ 65.43(b)(1) and 65.44(b)(1) shall be based on the annual inspections required by § 65.43(c)(1)(i) and (c)(2)(ii)(A) and at other times when the roof is viewed.

§§ 65.49–65.59 [Reserved]

Subpart D—Process Vents

§ 65.60 Applicability.

The provisions of this subpart and of subpart A of this part apply to control of regulated material emissions from process vents where a referencing subpart references the use of this subpart for such emissions control.

§ 65.61 Definitions.

All terms used in this subpart shall have the meaning given them in the Act and in subpart A of this part. If a term is defined in both subpart A of this part and in other subparts that reference the use of this subpart, the term shall have the meaning given in subpart A of this part for purposes of this subpart.

§ 65.62 Process vent group determination.

(a) *Group status.* The owner or operator of a process vent shall determine the group status (i.e., Group 1, Group 2A, or Group 2B) for each process vent. Group 1 process vents require control, and Group 2A and 2B process vents do not. Group 2A process vents require parameter monitoring, and Group 2B process vents do not. The owner or operator shall report the group status of each process vent as specified in § 65.5(c)(2) of subpart A of this part.

(b) *Group 1.* A process vent is considered Group 1 if it meets at least one of the specifications listed in paragraph (b)(1) or (b)(2) of this section.

(1) The owner or operator designates the process vent as Group 1.

(2) At representative conditions for the process vent, the TRE index value is less than or equal to 1.0, the flow rate is greater than or equal to 0.011 standard cubic meter per minute (0.40 standard cubic foot per minute), and the concentration is greater than or equal to the applicable table 1 criterion. Procedures for determining the TRE index value, flow rate, and concentration are specified in § 65.64.

(c) *Group 2A.* A process vent is considered Group 2A if, at representative conditions, it has a TRE index value of greater than 1.0 and less than or equal to 4.0, a flow rate of greater than or equal to 0.011 standard cubic meter per minute (0.40 standard cubic foot per minute), and a concentration greater than or equal to the applicable table 1 criterion. Procedures for determining the TRE index value, flow rate, and concentration are specified in § 65.64.

(d) *Group 2B.* A process vent is considered Group 2B if, at representative conditions, it has a TRE index value of greater than 4.0; or a flow rate of less than 0.011 standard cubic meter per minute (0.40 standard cubic foot per minute); or a concentration less than the applicable table 1 criterion. Procedures for determining the TRE index value, flow rate, and concentration are specified in § 65.64.

§ 65.63 Performance and group status change requirements.

(a) *Group 1 performance requirements.* Except for the additional requirement for halogenated vent streams as provided in paragraph (b) of this section, the owner or operator of a Group 1 process vent shall comply with the requirements of either paragraph (a)(1), (a)(2), or (a)(3) of this section.

(1) *Flare.* Reduce emissions of regulated material using a flare meeting the applicable requirements of § 65.142(b) of subpart G of this part.

(2) *98 percent or 20 parts per million by volume standard.* Reduce emissions of regulated material or TOC by at least 98 weight-percent or to a concentration of less than 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, and corrected to 3 percent oxygen. The owner or operator shall meet the requirements in § 65.142(b) of subpart G of this part and

paragraphs (a)(2)(i) and/or (a)(2)(ii) of this section.

(i) Compliance with paragraph (a)(2) of this section may be achieved by using any combination of combustion, recovery, and/or recapture devices except that a recovery device may not be used to comply with paragraph (a)(2) of this section by reducing emissions of total regulated material by 98 weight-percent, except as provided in paragraph (a)(2)(ii) of this section.

(ii) An owner or operator may use a recovery device alone or in combination with one or more combustion or recapture devices to reduce emissions of total regulated material by 98 weight-percent if all the conditions of paragraphs (a)(2)(ii)(A) through (a)(2)(ii)(C) of this section are met.

(A) For process vents referenced to this part by 40 CFR part 63, subpart G, the recovery device (and any combustion device or recapture device that operates in combination with the recovery device to reduce emissions of total regulated material by 98 weight-percent) was installed before December 31, 1992.

(B) The recovery device that will be used to reduce emissions of total regulated material by 98 weight-percent is the last recovery device before emission to the atmosphere.

(C) The recovery device alone or in combination with one or more combustion or recapture devices is capable of reducing emissions of total regulated material by 98 weight-percent but is not capable of reliably reducing emissions of total regulated material to a concentration of 20 parts per million by volume.

(D) If the owner or operator disposed of the recovered material, the recovery device would be considered a recapture device and comply with the requirements of this subpart and § 65.142(b) of subpart G for control devices.

(3) *TRE index value.* Achieve and maintain a TRE index value greater than 1.0 at the outlet of the final recovery device, or prior to release from the process vent to the atmosphere if no recovery device is present. If the TRE index value is greater than 1.0, the process vent shall meet the provisions for a Group 2A or 2B process vent specified in either paragraph (c), (d), (e), or (f) of this section, whichever is applicable.

(b) *Halogenated Group 1 performance requirement.* Halogenated Group 1 process vents that are combusted shall be controlled according to paragraph (b)(1) or (b)(2) of this section. Determination of whether a vent stream is halogenated shall be made using the procedures specified in § 65.64(g) and the halogen concentration in the vent stream shall be recorded and reported in the Initial Compliance Status Report as specified in § 65.160(d) of subpart G of this part.

(1) *Halogen reduction device following combustion.* If a combustion device is used to comply with paragraph (a)(2) of this section for a halogenated process vent, then the process vent exiting the combustion device shall be ducted to a halogen reduction device including, but not limited to, a scrubber before it is discharged to the atmosphere and the halogen reduction device shall meet the requirements of paragraph (b)(1)(i) or (b)(1)(ii) of this section, as applicable. The halogenated process vent shall not be combusted using a flare.

(i) Except as provided in paragraph (b)(1)(ii) of this section, the halogen reduction device shall reduce overall emissions of hydrogen halides and halogens by 99 percent or shall reduce the outlet mass of total hydrogen halides and halogens to less than 0.45 kilogram per hour (0.99 pound per hour), whichever is less stringent. The owner or operator shall meet the requirements in § 65.142(b) of subpart G of this part.

(ii) If a scrubber or other halogen reduction device was installed prior to December 31, 1992, the device shall reduce overall emissions of hydrogen halides and halogens by 95 percent or shall reduce the outlet mass of total hydrogen halides and halogens to less than 0.45 kilogram per hour (0.99 pound per hour), whichever is less stringent. The owner or operator shall meet the requirements in § 65.142(b) of subpart G of this part.

(2) *Halogen reduction device prior to combustion.* A halogen reduction device, such as a scrubber, or other technique may be used to reduce the process vent halogen atom mass emission rate to less than 0.45 kilogram per hour (0.99 pound per hour) prior to any combustion control device and thus make the process vent nonhalogenated; the process vent must comply with the requirements of paragraph (a)(1) or (a)(2) of this section. The halogen atom mass emission rate prior to the combustor shall be determined according to the procedures in § 65.64(g). The owner or operator shall meet the requirements in § 65.142(b) of subpart G of this part.

(c) *Performance requirements for group 2A process vents with recovery devices.* For Group 2A process vents, where the owner or operator is using a recovery device to maintain a TRE index value greater than 1.0, the owner or operator shall maintain a TRE index value greater than 1.0 and comply with the requirements for recovery devices in § 65.142(b) of subpart G of this part.

(d) *Performance requirements for group 2A process vents without recovery devices.* For Group 2A process vents where the owner or operator is not using a recovery device to maintain a TRE index value greater than 1.0, determine the appropriate parameters to be monitored and submit the information as specified in paragraphs (d)(1), (d)(2), and (d)(3) of this section. Such information shall be submitted for approval to the Administrator as part of a title V permit application or by separate notice. The owner or operator shall monitor as specified in § 65.65(a), maintain the record specified in § 65.66(e), and submit reports as specified in § 65.67(c).

(1) *Parameter monitoring.* A description of the parameter(s) to be monitored to ensure the owner or operator of a process vent achieves and maintains the TRE above 1.0. and an explanation of the criteria used to select the parameter(s).

(2) *Demonstration methods and procedures.* A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the process, the schedule for this demonstration, and a statement that the owner or operator will establish a range for the monitored parameter as part of the Initial Compliance Status Report required in § 65.5(d) of subpart A of this part, unless this information has already been included in the operating permit application.

(3) *Monitoring, recordkeeping, and reporting frequency.* The frequency and content of monitoring, recording, and reporting if monitoring and recordkeeping are not continuous, or if reports of daily average values when the monitored parameter value is outside the range established in the operating permit or Initial Compliance Status Report will not be included in periodic reports required under § 65.5(e) of subpart A of this part. The rationale for the proposed monitoring, recording, and reporting system shall be included.

(e) *Group 2B performance requirements.* For Group 2B process vents, the owner or operator shall maintain a TRE index greater than 4.0, a flow rate less than 0.011 scmm, or a concentration less than the applicable criteria in table 1 of this subpart.

(f) *Group 2A or 2B process change requirements.* Whenever process changes are made that could reasonably be expected to change a Group 2A or 2B process vent to a Group 1 vent, the owner or operator shall recalculate the TRE index value, flow, or TOC or

organic hazardous air pollutant (HAP) concentration according to paragraph (f)(1), (f)(2), or (f)(3) of this section as specified for each process vent as necessary to determine whether the process vent is Group 1, Group 2A, or Group 2B and shall maintain the applicable records specified in § 65.66(d). Examples of process changes include, but are not limited to, changes in production capacity, production rate, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of paragraph (f) of this section, process changes do not include process upsets; unintentional, temporary process changes; and changes that are within the range on which the original TRE index value calculation was based.

(1) *Flow rate.* The flow rate shall be determined as specified in the sampling site and flow rate determination procedures in § 65.64 (b) and (d) or by using best engineering assessment of the effects of the change. Engineering assessments shall meet the specifications in § 65.64(i);

(2) *Concentration.* The TOC or organic HAP concentration shall be determined as specified in § 65.64 (b) and (c) or by using best engineering assessment of the effects of the change. Engineering assessments shall meet the specifications in § 65.64(i); or

(3) *TRE index value.* The TRE index value shall be recalculated based on measurements of process vent flow rate, TOC, and/or organic HAP concentrations, and heating values as specified in § 65.64 (b), (c), (d), (e), (f), (g), and (h) as applicable, or based on best engineering assessment of the effects of the change. Engineering assessments shall meet the specifications in § 65.64(i).

(4) *Group status change to Group 1.* Where the process change causes the group status to change to Group 1, the owner or operator shall comply with the Group 1 process vent provisions in paragraph (a) of this section and, if they apply, the halogenated Group 1 process vent provisions in paragraph (b) of this section upon initial startup unless the owner or operator demonstrates to the Administrator that achieving compliance will take longer than making the process change. If this demonstration is made to the Administrator's satisfaction, the owner or operator shall comply as expeditiously as practical, but in no event later than 3 years after the emission point becomes Group 1, and shall follow the procedures in paragraphs (f)(4)(i) through (f)(4)(iii) of this section to establish a compliance date.

(i) The owner or operator shall submit to the Administrator for approval a compliance schedule, along with a justification for the schedule.

(ii) The compliance schedule shall be submitted with the operating permit application or amendment or by other appropriate means.

(iii) The Administrator shall approve the compliance schedule or request changes within 120 calendar days of receipt of the compliance schedule and justification.

(5) *Group status change to Group 2A.* Whenever a process change causes the process vent group status to change to Group 2A, the owner or operator shall comply with the provisions of paragraph (c) or (d) of this section upon completion of the group status determination of the process vent. The owner or operator shall perform the group status determination as soon as practical after the process change and within 180 days after the process change.

(6) *Group status change to Group 2B.* Whenever a process change causes the process vent group status to change to Group 2B, the owner or operator shall comply with the provisions of paragraph (e) of this section as soon as practical after the process change.

§ 65.64 Group determination procedures.

(a) *General.* The provisions of this section provide calculation and measurement methods for parameters that are used to determine group status.

(b)(1) *Sampling site.* For purposes of determining total organic TOC or HAP concentration, process vent volumetric flow rate, heating value, or TRE index value as specified under paragraph (c), (d), (e), (f), or (h) of this section, the sampling site shall be located after the last recovery device (if any recovery devices are present) but prior to the inlet of any control device that is present, and prior to release to the atmosphere.

(2) *Sampling site when a halogen reduction device is used prior to a combustion device.* An owner or operator using a scrubber or other halogen reduction device to reduce the process vent halogen atom mass emission rate to less than 0.45 kilogram per hour (0.99 pound per hour) prior to a combustion control device in compliance with § 65.63(b)(2) shall determine the halogen atom mass emission rate prior to the combustor according to the procedures in paragraph (g) of this section.

(3) *Sampling Site Selection Method.* Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling site. No traverse site selection method is needed for process vents smaller than 0.10 meter (4 inches) in nominal inside diameter.

(c) *TOC or HAP concentration.* The TOC or HAP concentrations used for TRE index value calculations in paragraph (h) of this section shall be determined based on paragraph (c)(1) of this section, or any other method or data that have been validated according to the protocol in Method 301 of appendix A of part 63. For concentrations needed for comparison with the appropriate concentration in table 1 of this subpart, TOC or HAP concentration shall be determined based on paragraph (c)(1), (c)(2), or (i) of this section or any other method or data that have been validated according to the protocol in Method 301 of appendix A of part 63. The owner or operator shall record the TOC or HAP concentration as specified in § 65.66(c).

(1) *Method 18.* The procedures specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section shall be used to calculate parts per million by volume concentration using Method 18 of 40 CFR part 60, appendix A.

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

(ii) The concentration of either TOC (minus methane and ethane) or organic HAP emissions shall be calculated according to paragraph (c)(1)(ii)(A) or (c)(1)(ii)(B) of this section, as applicable.

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

$$C_{TOC} = \frac{\sum_{i=1}^{x}\left(\sum_{j=1}^{n} C_{ji}\right)}{x} \qquad (64\text{-}1)$$

Where:

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

x=Number of samples in the sample run.

n=Number of components in the sample.

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

(B) The total organic HAP concentration (CHAP) shall be computed according to the equation in paragraph (c)(1)(ii)(A) of this section

except that only the organic HAP species shall be summed.

(2) *Method 25A.* The procedures specified in paragraphs (c)(2)(i) through (c)(2)(vi) of this section shall be used to calculate parts per million by volume concentration using Method 25A of 40 CFR part 60, appendix A.

(i) Method 25A of 40 CFR part 60, appendix A, shall be used only if a single organic compound of regulated material is greater than 50 percent of total organic HAP or TOC, by volume, in the process vent.

(ii) The process vent composition may be determined by either process knowledge, test data collected using an appropriate EPA method, or a method or data validated according to the protocol in Method 301 of appendix A of part 63. Examples of information that could constitute process knowledge include calculations based on material balances, process stoichiometry, or previous test results provided the results are still relevant to the current process vent conditions.

(iii) The organic compound used as the calibration gas for method 25A of 40 CFR part 60, appendix A, shall be the single organic compound of regulated material present at greater than 50 percent of the total organic HAP or TOC by volume.

(iv) The span value for Method 25A of 40 CFR part 60, appendix A shall be equal to the appropriate concentration value in table 1 of this subpart.

(v) Use of Method 25A of 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(vi) The owner or operator shall demonstrate that the concentration of TOC including methane and ethane measured by Method 25A of 40 CFR part 60 of this subpart, appendix A is below one-half the appropriate value in table 1 to be considered a Group 2B vent with an organic HAP or TOC concentration below the appropriate value in table 1 of this subpart.

(d) *Volumetric flow rate.* The process vent volumetric flow rate (QS) in standard cubic meters per minute at 20 °C (68 F) shall be determined as specified in paragraph (d)(1) or (d)(2) of this section and shall be recorded as specified in § 65.66(b).

(1) Use Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate. If the process vent tested passes through a final steam jet ejector and is not condensed, the stream volumetric flow shall be corrected to 2.3 percent moisture; or

(2) The engineering assessment procedures in paragraph (i) of this section can be used for determining volumetric flow rates.

(e) *Heating value.* The net heating value shall be determined as specified in paragraphs (e)(1) and (e)(2) of this section or by using the engineering assessment procedures in paragraph (i) of this section.

(1) The net heating value of the process vent shall be calculated using the following equation:

$$H_T = K_1\left(\sum_{j=1}^{n} D_j H_j\right) \qquad (64\text{-}2)$$

Where:

H_T=Net heating value of the sample, megajoule per standard cubic meter, where the net enthalpy per mole of process vent is based on combustion at 25 °C and 760 millimeters of mercury, but the standard temperature for determining the volume corresponding to 1 mole is 20 °C as in the definition of Q_s (process vent volumetric flow rate).

K_1=Constant, 1.740×10^{-7} parts per million)$^{-1}$ (gram-mole per standard cubic meter) (megajoule per kilocalorie), where standard temperature for (gram-mole per standard cubic meter) is 20 °C.

n=Number of components in the sample.

D_j=Concentration on a wet basis of compound j in parts per million as measured by procedures indicated in paragraph (e)(2) of this section. For process vents that pass through a final steam jet and are not condensed, the moisture is assumed to be 2.3 percent by volume.

H_j=Net heat of combustion of compound j, kilocalorie per gram-mole, based on combustion at 25 °C and 760 millimeters of mercury. The heat of combustion of process vent components shall be determined using American Society for Testing and Materials (ASTM) D2382–76 incorporated by reference as specified in § 65.13 if published values are not available or cannot be calculated.

(2) The molar composition of the process vent (Dj) shall be determined using the methods specified in paragraphs (e)(2)(i) through (e)(2)(iii) of this section:

(i) Method 18 of 40 CFR part 60, appendix A to measure the concentration of each organic compound.

(ii) American Society for Testing and Materials (ASTM) D1946–77 incorporated by reference as specified in § 65.13 to measure the concentration of carbon monoxide and hydrogen.

(iii) Method 4 of 40 CFR part 60, appendix A, to measure the moisture content of the stack gas.

(f) *TOC or HAP emission rate.* The emission rate of TOC (minus methane and ethane) (E_{TOC}) and/or the emission rate of total organic HAP (E_{HAP}) in the process vent as required by the TRE index value equation specified in paragraph (h) of this section, shall be calculated using the following equation:

$$E = K_2\left(\sum_{j=1}^{n} C_j M_j\right) Q_s \qquad (64\text{-}3)$$

Where:

E=Emission rate of TOC (minus methane and ethane) (E_{TOC}) or emission rate of total organic HAP (E_{HAP}) in the sample, kilograms per hour.

K_2=Constant, 2.494 x 10^{-6} (parts per million) *1 (gram-mole per standard cubic meter) (kilogram per gram) (minutes per hour), where standard temperature for (gram-mole per standard cubic meter) is 20 °C.*

n=Number of components in the sample.

C_j=Concentration on a dry basis of organic compound j in parts per million as measured by Method 18 of 40 CFR part 60, appendix A, as indicated in paragraph (c) of this section. If the TOC emission rate is being calculated, C_j includes all organic compounds measured minus methane and ethane; if the total organic HAP emission rate is being calculated, only organic HAP compounds are included.

M_j=Molecular weight of organic compound j, gram/gram-mole.

Q_s=Process vent flow rate, dry standard cubic meter per minute, at a temperature of 20 °C.

(g) *Halogenated vent determination.* In order to determine whether a process vent is halogenated, the mass emission rate of halogen atoms contained in organic compounds shall be calculated according to the procedures specified in paragraphs (g)(1) and (g)(2) of this section. A process vent is considered halogenated if the mass emission rate of halogen atoms contained in the organic compounds is equal to or greater than 0.45 kilogram per hour (0.99 pound per hour).

(1) The process vent concentration of each organic compound containing halogen atoms (parts per million by volume, by compound) shall be determined based on one of the procedures specified in paragraphs (g)(1)(i) through (g)(1)(iv) of this section:

(i) Process knowledge that no halogen or hydrogen halides are present in the process vent; or

(ii) Applicable engineering assessment as discussed in paragraph (i)(3) of this section; or

(iii) Concentration of organic compounds containing halogens measured by Method 18 of 40 CFR part 60, appendix A; or

(iv) Any other method or data that have been validated according to the

applicable procedures in Method 301 of appendix A of this part.

(2) The following equation shall be used to calculate the mass emission rate of halogen atoms:

$$E = K_2 Q \left(\sum_{j=1}^{n} \sum_{i=1}^{m} C_j * L_{j,i} * M_{j,i} \right) \quad (64\text{-}4)$$

Where:

E=Mass of halogen atoms, dry basis, kilogram per hour.

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

Q=Flow rate of gas stream, dry standard cubic meters per minute, determined according to paragraph (d) or (i) of this section.

n=Number of halogenated compounds j in the gas stream.

j=Halogenated compound j in the gas stream.

m=Number of different halogens i in each compound j of the gas stream.

i=Halogen atom i in compound j of the gas stream.

C_j=Concentration of halogenated compound j in the gas stream, dry basis, parts per million by volume.

L_{ji}=Number of atoms of halogen i in compound j of the gas stream.

M_{ji}=Molecular weight of halogen atom i in compound j of the gas stream, kilogram per kilogram-mole.

(h) *TRE index value.* The owner or operator shall calculate the TRE index value of the process vent using the equations and procedures specified in paragraphs (h)(1) through (h)(3) of this section, as applicable, and shall maintain the records specified in § 65.66(a) or § 65.66(d)(4), as applicable.

(1) *TRE index value equation.* The equation for calculating the TRE index is as follows:

$$TRE = A * [B + C + D + E + F] \quad (64-5)$$

where:

TRE=TRE index value.

A, B, C, D, E, and F=Parameters presented in tables 2 and 3 of this subpart that include the following variables:

Q=Process vent flow rate, standard cubic meters per minute, at a standard temperature of 20 °C, as calculated according to paragraph (d) or (i) of this section.

H=Process vent net heating value, megajoules per standard cubic meter, as calculated according to paragraph (e) or (i) of this section.

E_{TOC}=Emission rate of TOC (minus methane and ethane), kilograms per hour, as calculated according to paragraph (f) or (i) of this section.

E_{HAP}=Emission rate of total organic HAP, kilograms per hour, as calculated according to paragraph (f) or (i) of this section.

(2) *Nonhalogenated process vents.* The owner or operator of a nonhalogenated process vent shall calculate the TRE index value based on either paragraph (h)(2)(i) or (h)(2)(ii) of this section, as applicable.

(i) *TRE calculations: Part 60 regulated sources.* Use the parameters in table 2 of this subpart and calculate the TRE index value twice, once using the appropriate equation (depending on the heating value and flow rate of the process vent) in equations 15 through 30 and once using the appropriate equation (depending on the heating value of the process vent) in equations 31 and 32. Select the lowest TRE index value.

(ii) *TRE calculations: Part 63 regulated sources.* Use the equation and parameters in table 3 of this subpart and calculate the TRE index value using equations 34, 35, and 36 for process vents at existing sources; or equations 38, 39, and 40 for process vents at new sources. Select the lowest TRE index value.

(3) *Halogenated process vents.* The owner or operator of a halogenated process vent stream as determined according to procedures specified in paragraph (g) of this section shall calculate the TRE index value based on either paragraph (h)(3)(i) or (h)(3)(ii) of this section, as applicable.

(i) *TRE Calculations: Part 60 regulated sources.* Use the parameters in table 2 of this subpart and calculate the TRE index value using the appropriate equation chosen from equations 1 through 14 depending on the heating value and flow rate of the process vent.

(ii) *TRE calculations: Part 63 regulated sources.* Use the appropriate parameters in table 3 of this subpart and calculate the TRE index value using equation 33 or 37 depending on whether the process vent is at a new or existing source.

(i) *Engineering assessment.* For purposes of TRE index value determination, engineering assessment may be used to determine process vent flow rate, net heating value, TOC emission rate, and total organic HAP emission rate for the representative operating condition expected to yield the lowest TRE index value. Engineering assessments shall meet the requirements of paragraphs (i)(1) through (i)(4) of this section. If process vent flow rate or process vent organic HAP or TOC concentration is being determined for comparison with the 0.011 scmm (0.40 standard cubic foot) flow rate or the applicable concentration value in table 1 of this subpart, engineering assessment may be used to determine the flow rate or concentration for the representative operating condition expected to yield the highest flow rate or concentration.

(1) If the TRE index value calculated using such engineering assessment and the TRE index value equation in paragraph (h) of this section is greater than 4.0, then the owner or operator is not required to perform the measurements specified in paragraphs (c) through (g) of this section.

(2) If the TRE index value calculated using such engineering assessment and the TRE index value equation in paragraph (h) of this section is less than or equal to 4.0, then the owner or operator is required either to perform the measurements specified in paragraphs (c) through (g) of this section for group determination or to consider the process vent a Group 1 process vent and comply with the requirement (or standard) specified in § 65.63(a) and, if applicable, § 65.63(b).

(3) Engineering assessment includes, but is not limited to, the examples specified in paragraphs (i)(3)(i) through (i)(3)(iv) of this section:

(i) Previous test results provided the tests are representative of current operating practices at the process unit.

(ii) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

(iii) Maximum flow rate, TOC emission rate, organic HAP emission rate, organic HAP or TOC concentration, or net heating value limit specified or implied within a permit limit applicable to the process vent.

(iv) 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 those specified in paragraphs (i)(3)(iv)(A) through (i)(3)(iv)(D) of this section:

(A) Use of material balances based on process stoichiometry to estimate maximum TOC or organic HAP concentrations;

(B) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities;

(C) Estimation of TOC or organic HAP concentrations based on saturation conditions; and

(D) Estimation of maximum expected net heating value based on the stream concentration of each organic compound or, alternatively, as if all TOC in the stream were the compound with the highest heating value.

(4) All data, assumptions, and procedures used in the engineering assessment shall be documented. The owner or operator shall maintain the records specified in § 65.66(a), (b), (c), or (d), as applicable.

§ 65.65 Monitoring.

(a) An owner or operator of a Group 2A process vent maintaining a TRE index value greater than 1.0 without a recovery device shall monitor based on the approved plan as specified in § 65.63(d).

(b) As required in § 65.63(a) and (c), an owner or operator of a Group 2A process vent maintaining a TRE index value greater than 1.0 with a recovery device or a Group 1 process vent shall comply with § 65.142(b) of subpart G of this part.

§ 65.66 Recordkeeping provisions.

(a) *TRE index value records.* The owner or operator shall maintain records of measurements, engineering assessments, and calculations performed to determine the TRE index value of the process vent according to the procedures of § 65.64(h), including those records associated with halogen vent stream determination. Documentation of engineering assessments shall include all data, assumptions, and procedures used for the engineering assessments, as specified in § 65.64(i). As specified in § 65.67(a), the owner or operator shall include this information in the Initial Compliance Status Report.

(b) *Flow rate records.* The owner or operator shall record the flow rate as measured using the sampling site and flow rate determination procedures specified in § 65.64(b) and (d) or determined through engineering assessment as specified in § 65.64(i). As specified in § 65.67(a), the owner or operator shall include this information in the Initial Compliance Status Report.

(c) *Concentration records.* The owner or operator shall record the organic HAP or TOC concentration as measurement using the sampling site and HAP or TOC concentration determination procedures specified in § 65.64(b) and (c) or determined through engineering assessment as specified in § 65.64(i). As specified in § 65.67(a), the owner or operator shall include this information in the Initial Compliance Status Report.

(d) *Process change records.* The owner or operator shall keep up-to-date, readily accessible records as specified in paragraphs (d)(1) through (d)(4) of this section and shall report this information as specified in § 65.67(b).

(1) If the process vent is Group 2B on the basis of flow rate being less than 0.011 scmm (0.40 standard cubic foot), then the owner or operator shall keep records of any process changes as defined in § 65.63(f) that increase the process vent flow rate and any recalculation or measurement of the flow rate pursuant to § 65.63(f).

(2) If the process vent is Group 2B on the basis of organic HAP or TOC concentration being less than the applicable value in table 1 of this subpart, then the owner or operator shall keep records of any process changes as defined in § 65.63(f) that increase the organic HAP or TOC concentration of the process vent and any recalculation or measurement of the concentration pursuant to § 65.63(f).

(3) If the process vent is Group 2A or Group 2B on the basis of the TRE index value being greater than 1.0, then the owner or operator shall keep records of any process changes as defined in § 65.63(f) and any recalculation of the TRE index value pursuant to § 65.63(f).

(4) As a result of a process change, if a process vent that was Group 2B on any basis becomes a Group 2B process vent only on the basis of having a TRE greater than 4.0, then the owner or operator shall keep records of the TRE index value determination performed according to the sample site and TRE index value determination procedures of § 65.64(b)(1) and (h) or determined through engineering assessment as specified in § 65.64(i).

(e) *Other Group 2A records.* An owner or operator of a Group 2A process vent maintaining a TRE index value greater than 1.0 without a recovery device shall record the parameters monitored based on the approved plan as specified in § 65.63(d).

§ 65.67 Reporting provisions.

(a) *Initial compliance status report.* The owner or operator shall submit as part of the Initial Compliance Status Report specified in § 65.5(d) of subpart A of this part the information recorded in § 65.66(a), (b), and (c).

(b) *Process change.* (1) Whenever a process change, as described in § 65.63(f) is made that causes a Group 2A or 2B process vent to become a Group 1 process vent or a Group 2B process vent to become a Group 2A process vent, the owner or operator shall submit a report within 60 days after the performance test or group determination. The report may be submitted as part of the next periodic report. The report shall include the information specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section.

(i) A description of the process change;

(ii) The results of the recalculation of the flow rate, organic HAP or TOC concentration, and/or TRE index value required under § 65.63(f) and recorded under § 65.66(d); and

(iii) A statement that the owner or operator will comply with the provisions of § 65.63 by the schedules specified in § 65.63(f)(4) through (f)(6).

(2) For process vents that become Group 1 process vents after a process change requiring a performance test to be conducted for the control device being used as specified in subpart G of this part, the owner or operator shall specify that the performance test has become necessary due to a process change. This specification shall be made in the notification to the Administrator of the intent to conduct a performance test as provided in § 65.164(b)(1) of subpart G of this part.

(3) Whenever a process change as described in § 65.63(f) is made that changes the group status of a process vent from Group 1 to Group 2A, or from Group 1 to Group 2B, or from Group 2A to Group 2B, the owner or operator shall include a statement in the next periodic report after the process change that a process change has been made and the new group status of the process vents.

(4) The owner or operator is not required to submit a report of a process change if one of the conditions listed in paragraph (b)(4)(i), (b)(4)(ii), (b)(4)(iii), or (b)(4)(iv) of this section is met.

(i) The change does not meet the definition of a process change in § 65.63(f) of this subpart, or

(ii) For a Group 2B process vent, the vent stream flow rate is recalculated according to § 65.63(f) of this subpart and the recalculated value is less than 0.011 standard cubic meter per minute (0.40 standard cubic foot per minute), or

(iii) For a Group 2B process vent, the organic HAP or TOC concentration of the vent stream is recalculated according to § 65.63(f) of this subpart, and the recalculated value is less than the applicable value in table 1 of this subpart, or

(iv) For a Group 2B process vent, the TRE index value is recalculated according to § 65.63(f) of this subpart and the recalculated value is greater than 4.0.

(c) *Parameters for Group 2A without a recovery device.* An owner or operator of a Group 2A process vent maintaining a TRE index value greater than 1.0 without using a recovery device shall report the information specified in the approved plan under § 65.63(d).

§§ 65.68–65.79 [Reserved]

TABLE 1 TO SUBPART D.—CONCENTRATION FOR GROUP DETERMINATION

Referencing subpart	Concentration
Subpart III of Part 60	NA.[1]
Subpart NNN of Part 60	300 ppmv of TOC.
Subpart RRR of Part 60	300 ppmv of TOC.
Subpart G of Part 63	50 ppmv of HAP.[2]

[1] Process vents subject to subpart III of Part 60 are not eligible for the low concentration exemption provisions of this part.
[2] For process vents subject to subpart G of part 63, the owner or operator may measure HAP or TOC concentration with regard to the low concentration exemption provisions of this part.

TABLE 2.—TO SUBPART D.—TRE PARAMETERS FOR NSPS REFERENCING SUBPARTS [a]

Halogenated vent stream?	Net heating value (MJ/scm)	Vent stream flow rate (scm/min)	Values of terms for TRE equation: TRE=A * [B+C+D+E+F]						Equation No.
			A	B	C	D	E	F	
Yes	0≤ H ≤3.5	Q <14.2	$1/E_{TOC}$	30.96334	0	0	−0.13064QH	0	1
		14.2≤ Q ≤18.8	$1/E_{TOC}$	19.18370	0.27580Q	$0.757620Q^{0.88}$	−0.13064QH	$0.01025Q^{0.5}$	2
		18.8< Q ≤699	$1/E_{TOC}$	20.00563	0.27580Q	$0.303870Q^{0.88}$	−0.13064QH	$0.01025Q^{0.5}$	3
		699< Q ≤1400	$1/E_{TOC}$	39.87022	0.29973Q	$0.303870Q^{0.88}$	−0.13064QH	$0.01449Q^{0.5}$	4
		1400< Q ≤2100	$1/E_{TOC}$	59.73481	0.31467Q	$0.303870Q^{0.88}$	−0.13064QH	$0.01775Q^{0.5}$	5
		2100< Q ≤2800	$1/E_{TOC}$	79.59941	0.32572Q	$0.303870Q^{0.88}$	−0.13064QH	$0.02049Q^{0.5}$	6
		2800< Q ≤3500	$1/E_{TOC}$	99.46400	0.33456Q	$0.303870Q^{0.88}$	−0.13064QH	$0.02291Q^{0.5}$	7
	H >3.5	Q <14.2	$1/E_{TOC}$	20.61052	0	0	0	0	8
		14.2≤ Q ≤18.8	$1/E_{TOC}$	18.84466	0.26742Q	$-0.200440Q^{0.88}$	0	$0.01025Q^{0.5}$	9
		18.8< Q ≤699	$1/E_{TOC}$	19.66658	0.26742Q	$-0.253320Q^{0.88}$	0	$0.01025Q^{0.5}$	10
		699< Q ≤1400	$1/E_{TOC}$	39.19213	0.29062Q	$-0.253320Q^{0.88}$	0	$0.01449Q^{0.5}$	11
		1400< Q ≤2100	$1/E_{TOC}$	58.71768	0.30511Q	$-0.253320Q^{0.88}$	0	$0.01775Q^{0.5}$	12
		2100< Q ≤2800	$1/E_{TOC}$	78.24323	0.31582Q	$-0.253320Q^{0.88}$	0	$0.02049Q^{0.5}$	13
		2800< Q ≤3500	$1/E_{TOC}$	97.76879	0.32439Q	$-0.253320Q^{0.88}$	0	$0.02291Q^{0.5}$	14
No	0≤ H ≤0.48	Q <14.2	$1/E_{TOC}$	11.01250	0	0	−0.17109QH	0	15
		14.2≤ Q ≤1340	$1/E_{TOC}$	8.54245	0.10555Q	$0.090300Q^{0.88}$	−0.17109QH	$0.01025Q^{0.5}$	16
		1340< Q ≤2690	$1/E_{TOC}$	16.94386	0.11470Q	$0.090300Q^{0.88}$	−0.17109QH	$0.01449Q^{0.5}$	17
		2690< Q ≤4040	$1/E_{TOC}$	25.34528	0.12042Q	$0.090300Q^{0.88}$	−0.17109QH	$0.01775Q^{0.5}$	18
	0.48< H ≤1.9.	Q <14.2	$1/E_{TOC}$	13.45630	0	0	−0.16181QH	0	19
		14.2≤ Q ≤1340	$1/E_{TOC}$	9.25233	0.06105Q	$0.319370Q^{0.88}$	−0.16181QH	$0.01025Q^{0.5}$	20
		1340< Q ≤2690	$1/E_{TOC}$	18.36363	0.06635Q	$0.319370Q^{0.88}$	−0.16181QH	$0.01449Q^{0.5}$	21
		2690< Q ≤4040	$1/E_{TOC}$	27.47492	0.06965Q	$0.319370Q^{0.88}$	−0.16181QH	$0.01775Q^{0.5}$	22
	1.9< H ≤3.6	Q <14.2	$1/E_{TOC}$	7.96988	0	0	0	0	23
		14.2≤ Q ≤1180	$1/E_{TOC}$	6.67868	0.06943Q	$0.025820Q^{0.88}$	0	$0.01025Q^{0.5}$	24
		1180< Q ≤2370	$1/E_{TOC}$	13.21633	0.07546Q	$0.025820Q^{0.88}$	0	$0.01449Q^{0.5}$	25
		2370< Q ≤3550	$1/E_{TOC}$	19.75398	0.07922Q	$0.025820Q^{0.88}$	0	$0.01775Q^{0.5}$	26
	H >3.6	Q <14.2	$1/E_{TOC}$	6.67868	0	$0.02220Q^{0.88}H^{0.88}$	−0.00707QH	$0.02036H^{0.5}$	27
		Q ≥14.2 and 14.2≤ Q* (H/3.6) ≤1180.	$1/E_{TOC}$	6.67868	0	$0.02220Q^{0.88}H^{0.88}$	−0.00707QH	$0.00540Q^{0.5}H^{0.5}$	28
		Q ≥14.2 and 1180< Q* (H/3.6) ≤2370.	$1/E_{TOC}$	13.21633	0	$0.02412Q^{0.88}H^{0.88}$	−0.00707QH	$0.00764Q^{0.5}H^{0.5}$	29
		Q ≥14.2 and 2370< Q* (H/3.6) ≤3550.	$1/E_{TOC}$	19.75398	0	$0.02533Q^{0.88}H^{0.88}$	−0.00707QH	$0.00936Q^{0.5}H^{0.5}$	30
No	0≤ H ≥11.2	All	$1/E_{TOC}$	2.08	2.25Q	$0.288Q^{0.8}$	−0.193QH	$-0.0051E_{TOC}$	31
	H ≤11.2	All	$1/E_{TOC}$	2.08	0.309Q	$0.0619Q^{0.8}$	−0.0043QH	$-0.0043E_{TOC}$	32

[a] Use according to procedures outlined in § 65.64(h).
MJ/scm = mega Joules per standard cubic meter; scm/min = standard cubic meters per minute.

TABLE 3 TO SUBPART D.—TRE PARAMETERS FOR HON REFERENCING SUBPARTS[a]

Existing or New?	Halogenated vent stream?	Values of terms for TRE equation: TRE = A * [B+C+D+E+F]						Equation No.
		A	B	C	D	E	F	
Existing	Yes	$1/E_{HAP}$	3.995	0.05200Q	0	−0.001769H	$0.0009700E_{TOC}$	33
	No	$1/E_{HAP}$	1.935	0.3660Q	0	−0.007687H	$-0.000733E_{TOC}$	34
		$1/E_{HAP}$	1.492	0.06267Q	0	0.03177H	$-0.001159E_{TOC}$	35
		$1/E_{HAP}$	2.519	0.01183Q	0	0.01300H	$0.04790E_{TOC}$	36
New	Yes	$1/E_{HAP}$	1.0895	0.01417Q	0	−0.000482H	$0.0002645E_{TOC}$	37
	No	$1/E_{HAP}$	0.5276	0.0998Q	0	−0.002096H	$-0.0002000E_{TOC}$	38
		$1/E_{HAP}$	0.4068	0.00171Q	0	0.008664H	$-0.000316E_{TOC}$	39
		$1/E_{HAP}$	0.6868	0.00321Q	0	0.003546H	$0.01306E_{TOC}$	40

[a] Use according to procedures outlined in § 65.64(h).
MJ/scm = mega Joules per standard cubic meter; scm/min = standard cubic meters per minute.

Subpart E—Transfer Racks

§ 65.80 Applicability.

(a) The provisions of this subpart and of subpart A of this part apply to control of regulated material emissions from transfer racks where a referencing subpart references the use of this subpart for such emissions control.

(b) If a physical or process change is made that causes a transfer rack to fall outside the criteria in the referencing subpart that required the transfer rack to control emission of regulated material, the owner or operator may elect to comply with the provisions for transfer racks not subject to control contained in the referencing subpart instead of the provisions of this subpart.

§ 65.81 Definitions.

All terms used in this subpart shall have the meaning given them in the Act and in subpart A of this part. If a term is defined in both subpart A of this part and in other subparts that reference the use of this subpart, the term shall have the meaning given in subpart A of this part for purposes of this subpart.

§ 65.82 Design requirements.

(a) The owner or operator shall equip each transfer rack with the equipment specified in either paragraph (a)(1) or (a)(2) of this section.

(1) A closed vent system which routes the regulated material vapors to a control device as provided in § 65.83(a)(1) and (a)(2).

(2) Process piping which routes the regulated material vapors to a process or a fuel gas system as provided in § 65.83(a)(4), or to a vapor balance system as provided in § 65.83(a)(3).

(b) Each closed vent system shall be designed to collect the regulated material displaced from tank trucks or railcars during loading and to route the collected regulated material to a control device or a flare as provided in § 65.83(a)(1) and (a)(2).

(c) Process piping shall be designed to collect the regulated material displaced from tank trucks or railcars during loading and to route the collected regulated material vapors to a process or a fuel gas system as provided in § 65.83(a)(4) or to a vapor balance system as provided in § 65.83(a)(3).

(d) Each closed vent system shall meet the applicable requirements of § 65.143 of subpart G of this part.

(e) If the collected regulated material vapors from a transfer rack are routed to a vapor balance system as provided in § 65.83(a)(3), then that transfer rack is exempt from the closed vent system design requirements of paragraphs (b) and (d) of this section, the halogenated vent stream control requirements of § 65.83(b), the control device operation requirements of § 65.84(b), the monitoring requirements of § 65.86, and the requirements of subpart G of this part.

(f) If the collected regulated material vapors are routed to a process or a fuel gas system as provided in § 65.83(a)(4), then each owner or operator shall meet the applicable requirements of § 65.142(c) of subpart G of this part.

§ 65.83 Performance requirements.

(a) The owner or operator of the transfer rack shall comply with paragraph (a)(1), (a)(2), (a)(3) or (a)(4) of this section.

(1) *98 Percent or 20 parts per million by volume standard*. Use a control device to reduce emissions of regulated material by 98 weight-percent or to an exit 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. The owner or operator shall meet the applicable requirements of § 65.142(c) of subpart G of this part. Compliance may be achieved by using any combination of combustion, recovery, and/or recapture devices.

(2) *Flare*. Reduce emissions of regulated material using a flare meeting the applicable requirements of § 65.142(c) of subpart G of this part.

(3) *Vapor balancing.* Reduce emissions of regulated material using a vapor balancing system designed and operated to collect regulated material vapors displaced from tank trucks or railcars during loading; and to route the collected regulated material vapors to the storage vessel from which the liquid being loaded originated, or to another storage vessel connected to a common header, or to compress and route collected regulated material vapors to a process. Transfer racks for which the owner or operator is using a vapor balancing system are exempt from the closed vent system design requirements of paragraphs § 65.82(b) and (d), the halogenated vent stream control requirements of paragraph (b) of this section, the control device operation requirements of § 65.84(b), the monitoring requirements of § 65.86, and the requirements of subpart G of this part.

(4) *Route to a process or fuel gas system*. Route emissions of regulated material to a process where the regulated material in the emissions shall predominantly meet one of, or a combination of, the ends specified in paragraphs (a)(4)(i) through (a)(4)(iv) of this section or to a fuel gas system. The owner or operator shall meet the applicable requirements of § 65.142(c) of subpart G of this part.

(i) Recycled and/or consumed in the same manner as a material that fulfills the same function in that process;

(ii) Transformed by chemical reaction into materials that are not regulated materials;

(iii) Incorporated into a product; and/or

(iv) Recovered.

(b) *Additional control requirements for halogenated vent streams.* Halogenated vent streams from transfer racks that are combusted shall be controlled according to paragraph (b)(1) or (b)(2) of this section. Determination of whether a vent stream is halogenated shall be made using the procedures specified in § 65.85(c) and the halogen concentration in the vent stream shall be recorded and reported in the Initial Compliance Status Report as specified in § 65.160(d) of subpart G of this part.

(1) *Halogen reduction device following combustion*. If a combustion device is used to comply with paragraph (a)(1) of this section for a halogenated vent stream, then the vent stream exiting the combustion device shall be ducted to a halogen reduction device including, but not limited to, a scrubber before it is discharged to the atmosphere, and the halogen reduction device shall meet the requirements of paragraph (b)(1)(i) or (b)(1)(ii) of this section, as applicable. The halogenated vent stream shall not be combusted using a flare.

(i) Except as provided in paragraph (b)(1)(ii) of this section, the halogen reduction device shall reduce overall emissions of hydrogen halides and halogens by 99 percent or shall reduce the outlet mass emission rate of total hydrogen halides and halogens to 0.45 kilogram per hour (0.99 pound per hour) or less, whichever is less stringent. The owner or operator shall meet the applicable requirements of § 65.142(c) of subpart G of this part.

(ii) If a scrubber or other halogen reduction device was installed prior to December 31, 1992, the halogen reduction device shall reduce overall emissions of hydrogen halides and halogens by 95 percent or shall reduce the outlet mass of total hydrogen halides and halogens to less than 0.45 kilogram per hour (0.99 pound per hour), whichever is less stringent. The owner or operator shall meet the applicable requirements of § 65.142(c) of subpart G of this part.

(2) *Halogen reduction device prior to combustion*. A halogen reduction device, such as a scrubber, or other

technique may be used to make the vent stream nonhalogenated by reducing the vent stream halogen atom mass emission rate to less than 0.45 kilogram per hour (0.99 pound per hour) prior to any combustion control device used to comply with the requirements of paragraph (a)(1) or (a)(2) of this section. The halogen mass emission rate prior to the combustor shall be determined according to the procedures in § 65.85(c). The owner or operator shall meet the applicable requirements of § 65.142(c) of subpart G of this part.

§ 65.84 Operating requirements.

(a) *Closed vent systems or process piping.* An owner or operator of a transfer rack shall operate the equipment specified in either paragraph (a)(1) or (a)(2) of this section.

(1) A closed vent system which routes the regulated material vapors to a control device as provided in § 65.83(a)(1) and (a)(2).

(2) Process piping which routes the regulated material vapors to a process or a fuel gas system as provided in § 65.83(a)(4) or to a vapor balance system as provided in § 65.83(a)(3).

(b) *Control device operation.* Whenever regulated material emissions are vented to a control device used to comply with the provisions of this subpart, such control device shall be operating.

(c) *Tank trucks and railcars.* The owner or operator shall load regulated material into only tank trucks and railcars that meet the requirements specified in paragraph (c)(1) or (c)(2) of this section and shall maintain the records specified in § 65.87.

(1) Have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements of 49 CFR part 180 for tank trucks and 49 CFR 173.31 for railcars; or

(2) Have been demonstrated to be vapor-tight within the preceding 12 months as determined by the procedures in § 65.85(a). Vapor-tight means that the pressure in a truck or railcar tank will not drop more than 750 pascals (0.11 pound per square inch) within 5 minutes after it is pressurized to a minimum of 4,500 pascals (0.65 pound per square inch).

(d) *Pressure relief device.* The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the loading equipment of each tank truck or railcar shall begin to open to the atmosphere during loading. Pressure relief devices needed for safety purposes are not subject to paragraph (d) of this section.

(e) *Compatible system.* The owner or operator of a transfer rack subject to the provisions of this subpart shall load regulated material only to tank trucks or railcars equipped with a vapor collection system that is compatible with the transfer rack's closed vent system or process piping.

(f) *Loading while systems connected.* The owner or operator of a transfer rack subject to this subpart shall load regulated material only to tank trucks or railcars whose collection systems are connected to the transfer rack's closed vent systems or process piping.

§ 65.85 Procedures.

(a) *Vapor tightness.* For the purposes of demonstrating vapor tightness to determine compliance with § 65.84(c)(2), the procedures and equipment specified in paragraphs (a)(1) and (a)(2) of this section shall be used.

(1) The pressure test procedures specified in Method 27 of 40 CFR part 60, appendix A; and

(2) A pressure measurement device that has a precision of ±2.5 millimeters of mercury (0.10 inch) or better and that is capable of measuring above the pressure at which the tank truck or railcar is to be tested for vapor tightness.

(b) *Engineering assessment.* Engineering assessment to determine if a vent stream is halogenated or flow rate of a gas stream includes, but is not limited to, the examples specified in paragraphs (b)(1) through (b)(5) of this section.

(1) Previous test results, provided the tests are representative of current operating practices at the process unit.

(2) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

(3) Maximum flow rate or halogen emission rate specified or implied within a permit limit applicable to the process vent.

(4) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties.

(5) All data, assumptions, and procedures used in the engineering assessment shall be documented.

(c) *Halogenated vent stream determination.* In order to determine whether a vent stream is halogenated, the mass emission rate of halogen atoms contained in organic compounds shall be calculated as specified in paragraphs (c)(1) and (c)(2) of this section.

(1) The vent stream concentration of each organic compound containing halogen atoms (parts per million by volume by compound) shall be determined based on any of the procedures specified in paragraphs (c)(1)(i) through (c)(1)(iv) of this section.

(i) Process knowledge that no halogen or hydrogen halides are present in the vent stream; or

(ii) Applicable engineering assessment as specified in paragraph (b); or

(iii) Concentration of organic compounds containing halogens measured by Method 18 of 40 CFR part 60, appendix A; or

(iv) Any other method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A.

(2) The following equation shall be used to calculate the mass emission rate of halogen atoms:

$$E = K_2 V_s \left(\sum_{j=1}^{n} \sum_{i=1}^{m} C_j * L_{ji} * M_{ji} \right) \quad (85\text{-}1)$$

Where:

E = Mass of halogen atoms, dry basis, kilograms per hour.

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

V_s = Flow rate of gas stream, dry standard cubic meters per minute, determined according to Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate, or determined using engineering assessment as specified in paragraph (b).

n = Number of halogenated compounds j in the gas stream.

j = Halogenated compound j in the gas stream.

m = Number of different halogens i in each compound j of the gas stream.

i = Halogen atom i in compound j of the gas stream.

C_j = Concentration of halogenated compound j in the gas stream, dry basis, parts per million by volume.

L_{ji} = Number of atoms of halogen i in compound j of the gas stream.

M_{ji} = Molecular weight of halogen atom i in compound j of the gas stream, kilogram per kilogram-mole.

§ 65.86 Monitoring.

The owner or operator of a transfer rack equipped with a closed vent system and control device pursuant to § 65.83(a)(1) or (a)(2) shall monitor the closed vent system and control device as required under the applicable paragraphs specified in § 65.142(c) of subpart G of this part.

§ 65.87 Recordkeeping provisions.

The owner or operator of a transfer rack shall record that the verification of U.S. Department of Transportation (DOT) tank certification or Method 27 of 40 CFR part 60, appendix A, testing required in § 65.84(c) has been

performed. Various methods for the record of verification can be used such as: a check off on a log sheet; a list of DOT serial numbers or Method 27 data or a position description for gate security showing that the security guard will not allow any trucks on-site that do not have the appropriate documentation.

§§ 65.88–65.99 [Reserved]

Subpart F—Equipment Leaks

§ 65.100 Applicability.

(a) *Equipment subject to this subpart.* The provisions of this subpart and subpart A of this part apply to equipment that contains or contacts regulated material. Compliance with this subpart instead of the referencing subpart does not alter the applicability of the referencing subpart. This subpart applies to only the equipment to which the referencing subpart applies. This part does not extend applicability to equipment that are not regulated by the referencing subpart.

(b) *Equipment in vacuum service.* Equipment in vacuum service is excluded from the requirements of this subpart.

(c) *Equipment in service less than 300 hours per calendar year.* Equipment intended to be in regulated material service less than 300 hours per calendar year is excluded from the requirements of §§ 65.106 through 65.115 and § 65.117 if it is identified as required in § 65.103(b)(6).

(d) *Lines and equipment not containing process fluids.* Lines and equipment not containing process fluids are not subject to the provisions of this subpart. Utilities and other nonprocess lines, such as heating and cooling systems that do not combine their materials with those in the processes they serve, are not considered to be part of a process unit.

§ 65.101 Definitions.

All terms used in this subpart shall have the meaning given them in the Act and in subpart A of this part. If a term is defined in both subpart A of this part and in other subparts that reference the use of this subpart, the term shall have the meaning given in subpart A of this part for purposes of this subpart.

§ 65.102 Alternative means of emission limitation.

(a) *Performance standard exemption.* The provisions of paragraph (b) of this section do not apply to the performance standards of § 65.111(b) for pressure relief devices or § 65.112(f) for compressors operating under the alternative compressor standard.

(b) *Requests by owners or operators.* An owner or operator may request a determination of alternative means of emission limitation to the requirements of §§ 65.106 through 65.115 as provided in paragraph (d) of this section. If the Administrator makes a determination that a means of emission limitation is a permissible alternative, the owner or operator shall either comply with the alternative or comply with the requirements of §§ 65.106 through 65.115.

(c) *Requests by manufacturers of equipment.*

(1) Manufacturers of equipment used to control equipment leaks of a regulated material may apply to the Administrator for approval of an alternative means of emission limitation that achieves a reduction in emissions of the regulated material equivalent to the reduction achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will grant permission according to the provisions of paragraph (d) of this section.

(d) *Permission to use an alternative means of emission limitation.* Permission to use an alternative means of emission limitation shall be governed by the procedures in paragraphs (d)(1) through (d)(4) of this section.

(1) Where the standard is an equipment, design, or operational requirement, the requirements of paragraphs (d)(1)(i) through (d)(1)(iii) of this section apply.

(i) Each owner or operator applying for permission to use an alternative means of emission limitation shall be responsible for collecting and verifying emission performance test data for an alternative means of emission limitation.

(ii) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

(iii) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve at least the same emission reduction as the equipment, design, and operational requirements of this subpart.

(2) Where the standard is a work practice, the requirements of paragraphs (d)(2)(i) through (d)(2)(vi) of this section apply.

(i) Each owner or operator applying for permission to use an alternative means of emission limitation shall be responsible for collecting and verifying test data for the alternative.

(ii) For each kind of equipment for which permission is requested, the emission reduction achieved by the required work practices shall be demonstrated for a minimum period of 12 months.

(iii) For each kind of equipment for which permission is requested, the emission reduction achieved by the alternative means of emission limitation shall be demonstrated.

(iv) Each owner or operator applying for such permission shall commit in writing for each kind of equipment to work practices that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practices.

(v) The Administrator will compare the demonstrated emission reduction for the alternative means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (d)(2)(iv) of this section.

(vi) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same or greater emission reduction as the required work practices of this subpart.

(3) An owner or operator may offer a unique approach to demonstrate the alternative means of emission limitation.

(4) If in the judgment of the Administrator an alternative means of emission limitation will be approved, the Administrator will publish a notice of the determination in the **Federal Register** using the procedures pursuant to § 65.8(a) of subpart A.

§ 65.103 Equipment identification.

(a) *General equipment identification.* Equipment subject to this subpart shall be identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit boundaries by some form of weatherproof identification, or by other appropriate methods.

(b) *Additional equipment identification.* In addition to the general identification required by paragraph (a) of this section, equipment subject to any of the provisions in §§ 65.106 through 65.115 shall be specifically identified as required in paragraphs (b)(1) through (b)(6) of this section, as applicable. Paragraph (b) of this section does not apply to an owner or operator of a batch product-process who elects to pressure test the batch product-process equipment train pursuant to § 65.117.

(1) *Connectors.* Except for inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of

§ 65.108(e)(2) and instrumentation systems identified pursuant to paragraph (b)(5) of this section, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the identification shall be complete no later than the completion of the initial survey required by § 65.108(a).

(2) [Reserved]

(3) *Routed to a process or fuel gas system or equipped with a closed vent system and control device.* Identify the equipment that the owner or operator elects to route to a process or fuel gas system or equip with a closed vent system and control device under the provisions of § 65.107(e)(3) (pumps in light liquid service), § 65.109(e)(3) (agitators), § 65.111(d) (pressure relief devices in gas/vapor service), § 65.112(e) (compressors), or § 65.118 (alternative means of emission limitation for enclosed-vented process units).

(4) *Pressure relief devices.* Identify the pressure relief devices equipped with rupture disks under the provisions of § 65.111(e).

(5) *Instrumentation systems.* Identify instrumentation systems subject to the provisions of this subpart. Individual components in an instrumentation system need not be identified.

(6) *Equipment in service less than 300 hours per calendar year.* Identify either by list, location (area or group), or other method, equipment in regulated material service less than 300 hours per calendar year within a process unit subject to the provisions of this subpart shall be recorded.

(c) *Special equipment designations: Equipment that is unsafe or difficult-to-monitor*—(1) Designation and criteria for unsafe-to-monitor. Valves meeting the provisions of § 65.106(e)(1), pumps meeting the provisions of § 65.107(e)(6), connectors meeting the provisions of § 65.108(e)(1), and agitators meeting the provisions of § 65.109(e)(7) may be designated unsafe-to-monitor if the owner or operator determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of this subpart.

(2) *Designation and criteria for difficult-to-monitor.* Valves meeting the provisions of § 65.106(e)(2) may be designated difficult-to-monitor if the provisions of paragraphs (c)(2)(i) apply. Agitators meeting the provisions of § 65.109(e)(5) may be designated difficult-to-monitor if the provisions of paragraph (c)(2)(ii) of this section apply.

(i) *Valves.* (A) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service; and

(B) The process unit within which the valve is located is a regulated source for which the owner or operator commenced construction, reconstruction, or modification prior to the compliance date of the referencing subpart; or

(C) The owner or operator designates less than 3 percent of the total number of valves within the process unit as difficult-to-monitor.

(ii) *Agitators.* (A) The owner or operator determines that the agitator cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in regulated material service.

(3) *Identification of unsafe or difficult-to-monitor equipment.* The owner or operator shall record the identity of equipment designated as unsafe-to-monitor or difficult-to-monitor according to the provisions of paragraph (c)(1) or (c)(2) of this section, the planned schedule for monitoring this equipment and an explanation why the equipment is difficult-to-monitor, if applicable.

(4) *Written plan requirements.* (i) The owner or operator of equipment designated as unsafe-to-monitor according to the provisions of paragraph (c)(1) of this section shall have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in § 65.105 if a leak is detected.

(ii) The owner or operator of equipment designated as difficult-to-monitor according to the provisions of paragraph (c)(2) of this section shall have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in § 65.105 if a leak is detected.

(d) *Special equipment designations: Equipment that is unsafe to repair*—(1) *Designation and criteria.* Connectors subject to the provisions of § 65.105(e) may be designated unsafe to repair if the owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with the repair requirements of this subpart and if the connector will be repaired before the end of the next process unit shutdown as specified in § 63.105(e).

(2) *Identification of equipment.* The identity of connectors designated as unsafe to repair and an explanation why the connector is unsafe to repair shall be recorded.

(e) *Special equipment designations: Compressors operating with an instrument reading of less than 500 parts per million.* Identify the compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million under the provisions of § 65.112(f).

(f) *Special equipment designations: Equipment in heavy liquid service.* The owner or operator of equipment in heavy liquid service shall comply with the requirements of either paragraph (f)(1) or (f)(2) of this section as provided in paragraph (f)(3) of this section.

(1) Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service.

(2) When requested by the Administrator, demonstrate that the piece of equipment or process is in heavy liquid service.

(3) A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of ''in light liquid service.'' Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

§ 65.104 Instrument and sensory monitoring for leaks.

(a) *Monitoring for leaks.* The owner or operator of a regulated source subject to this subpart shall monitor regulated equipment as specified in paragraph (a)(1) of this section for instrument monitoring and paragraph (a)(2) of this section for sensory monitoring.

(1) *Instrument monitoring for leaks.* (i) Valves in gas/vapor service and in light liquid service shall be monitored pursuant to § 65.106(b).

(ii) Pumps in light liquid service shall be monitored pursuant to § 65.107(b).

(iii) Connectors in gas/vapor service and in light liquid service shall be monitored pursuant to § 65.108(b).

(iv) Agitators in gas/vapor service and in light liquid service shall be monitored pursuant to § 65.109(b).

(v) Pressure relief devices in gas/vapor service shall be monitored pursuant to § 65.111(b) and (c).

(vi) Compressors designated to operate with an instrument reading less than 500 parts per million as described in § 65.103(e) shall be monitored pursuant to § 65.112(f).

(2) *Sensory monitoring for leaks.* (i) Pumps in light liquid service shall be observed pursuant to § 65.107(b)(4) and (e)(1).

(ii) Inaccessible, ceramic, or ceramic-lined connectors in gas/vapor service and in light liquid service shall be observed pursuant to § 65.108(e)(2).

(iii) Agitators in gas/vapor service and in light liquid service shall be monitored pursuant to § 65.109(b)(3) or (e)(1)(i).

(iv) Pumps, valves, agitators, and connectors in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service shall be observed pursuant to § 65.110(b)(1).

(b) *Instrument monitoring methods.* Instrument monitoring as required under this subpart shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.

(1) *Monitoring method.* Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A, except as otherwise provided in this section.

(2) *Detection instrument performance criteria.* (i) Except as provided for in paragraph (b)(2)(ii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the representative composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, air, or other inerts that are not organic HAP's or VOC, the representative stream response factor shall be determined on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.

(ii) If no instrument is available at the plant site that will meet the performance criteria specified in paragraph (b)(2)(i) of this section, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid calculated on an inert-free basis as described in paragraph (b)(2)(i) of this section.

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

(4) *Detection instrument calibration gas.* Calibration gases shall be zero air (less than 10 parts per million of hydrocarbon in air); and the gases specified in paragraph (b)(4)(i) of this section except as provided in paragraph (b)(4)(ii) of this section.

(i) Mixtures of methane in air at a concentration no more than 2,000 parts per million greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(ii) A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (b)(2)(i) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(5) *Monitoring performance.* Monitoring shall be performed when the equipment is in regulated material service or is in use with any other detectable material.

(6) *Monitoring data.* Monitoring data obtained prior to the regulated source becoming subject to the referencing subpart that do not meet the criteria specified in paragraphs (b)(1) through (b)(5) of this section may still be used to qualify initially for less frequent monitoring under the provisions in § 65.106(a)(2), (b)(3), or (b)(4) for valves or § 65.108(b)(3) for connectors provided the departures from the criteria or from the specified monitoring frequency of § 65.106(b)(3) or (b)(4) are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2(a) of Method 21 of appendix A of 40 CFR part 60 instead of paragraph (b)(2) of this section, or monitoring using a different leak definition if the data would indicate the presence or absence of a leak at the concentration specified in this subpart. Failure to use a calibrated instrument is not considered a minor departure.

(c) *Instrument monitoring readings and background adjustments.* The owner or operator may elect to adjust or not to adjust the instrument readings for background. If an owner or operator elects not to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (b)(1) through (b)(5) of this section. In such cases, all instrument readings shall be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with § 65.111(b) (pressure relief devices) or § 65.112(f) (alternative compressor standard). If an owner or operator elects to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (c)(1) through (c)(4) of this section.

(1) The requirements of paragraphs (b)(1) through (b)(5) of this section shall apply.

(2) The background level shall be determined using the procedures in Method 21 of 40 CFR part 60, appendix A.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR part 60, appendix A.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared to the applicable leak definition for the monitored equipment to determine whether there is a leak or to determine compliance with § 65.111(b) (pressure relief devices) or § 65.112(f) (alternative compressor standard).

(d) *Sensory monitoring methods.* Sensory monitoring consists of visual, audible, olfactory, or any other detection method used to determine a potential leak to the atmosphere.

(e) *Leaking equipment identification and records.* (1) When each leak is detected, a weatherproof and readily visible identification shall be attached to the leaking equipment.

(2) When each leak is detected, the information specified in paragraphs (e)(2)(i) and (e)(2)(ii) shall be recorded and kept pursuant to § 65.4(a) of subpart A of this part except the information for connectors complying with the 8 year monitoring period allowed under § 65.108(b)(3)(iii) shall be kept 5 years beyond the date of its last use.

(i) The instrument and the equipment identification and the instrument operator's name, initials, or identification number if a leak is detected or confirmed by instrument monitoring.

(ii) The date the leak was detected.

§ 65.105 Leak repair.

(a) *Leak repair schedule.* The owner or operator shall repair each leak detected as soon as practical but not later than 15 calendar days after it is detected except as provided in paragraph (d) of this section. A first attempt at repair as defined in subpart A of this part shall be made no later than 5 calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing.

(b) [Reserved]

(c) *Leak identification removal*—(1) *Valves and connectors.* The leak identification on a valve may be removed after it has been monitored as specified in § 65.106(d)(2) and no leak has been detected during that monitoring. The leak identification on a connector may be removed after it has been monitored as specified in § 65.108(b)(3)(iv) and no leak has been detected during that monitoring.

(2) *Other equipment.* The identification that has been placed pursuant to § 65.104(e)(1) on equipment determined to have a leak except for a valve or for a connector that is subject to the provisions of § 65.108(b)(4)(i)(A) may be removed after it is repaired.

(d) *Delay of repair.* Delay of repair is allowed for any of the conditions specified in paragraphs (d)(1) through (d)(5) of this section. The owner or operator shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

(1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit shutdown, except as provided in paragraph (d)(5) of this section.

(2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.

(3) Delay of repair for valves, connectors, and agitators is also allowed if the provisions of paragraphs (d)(3)(i) and (d)(3)(ii) of this section are met.

(i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair; and

(ii) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 65.115.

(4) Delay of repair for pumps is also allowed if the provisions of paragraphs (d)(4)(i) and (d)(4)(ii) of this section are met.

(i) Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of § 65.116(d) will provide better performance or one of the specifications of paragraphs (d)(4)(i)(A) through (d)(4)(i)(C) of this section are met.

(A) A dual mechanical seal system that meets the requirements of § 65.107(e)(1) will be installed;

(B) A pump that meets the requirements of § 65.107(e)(2) will be installed; or

(C) A system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of § 65.107(e)(3) will be installed; and

(ii) Repair is completed as soon as practical but not later than 6 months after the leak was detected.

(5) Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(e) *Unsafe-to-repair: Connectors.* Any connector that is designated as described in § 65.103(d) as an unsafe-to-repair connector is exempt from the requirements of § 65.108(d) and paragraph (a) of this section if the provisions of paragraphs (e)(1) and (e)(2) of this section are met.

(1) The owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The connector will be repaired before the end of the next scheduled process unit shutdown.

(f) *Leak repair records.* For each leak detected, the information specified in paragraphs (f)(1) through (f)(5) of this section shall be recorded and kept pursuant to § 65.4(a) of subpart A of this part.

(1) The date of first attempt to repair the leak.

(2) The date of successful repair of the leak.

(3) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A, at the time the leak is successfully repaired or determined to be nonrepairable.

(4) ''Repair delayed'' and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak as specified in paragraphs (f)(4)(i) and (f)(4)(ii) of this section.

(i) 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 § 65.6 of subpart A of this part for the source or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked onsite before depletion and the reason for depletion.

(5) Dates of process unit shutdowns that occur while the equipment is unrepaired.

§ 65.106 Standards: Valves in gas/vapor service and in light liquid service.

(a) *Compliance schedule.* (1) The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(2) The use of monitoring data generated before the regulated source became subject to the referencing subpart to qualify initially for less frequent monitoring is governed by the provisions of § 65.104(b)(6) of this subpart.

(b) *Leak detection.* Unless otherwise specified in §§ 65.102(b), 65.117, 65.118, or paragraph (e) of this section, the owner or operator shall monitor all valves at the intervals specified in paragraphs (b)(3) and/or (b)(4) of this section and shall comply with all other provisions of this section.

(1) *Monitoring method.* The valves shall be monitored to detect leaks by the method specified in § 65.104 (b), (c), and (e).

(2) *Instrument reading that defines a leak.* The instrument reading that defines a leak is 500 parts per million or greater.

(3) *Monitoring frequency.* The owner or operator shall monitor valves for

leaks at the intervals specified in paragraphs (b)(3)(i) through (b)(3)(v) of this section and shall keep the record specified in paragraph (b)(3)(vi) of this section.

(i) If at least the greater of two valves or 2 percent of the valves in a process unit leak, as calculated according to paragraph (c) of this section, the owner or operator shall monitor each valve once per month.

(ii) At process units with less than the greater of two leaking valves or 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter except as provided in paragraphs (b)(3)(iii) through (b)(3)(v) of this section. Monitoring data generated before the regulated source became subject to the referencing subpart and meeting the criteria of either § 65.104 (b)(1) through (b)(5) or § 65.104(b)(6) may be used to qualify initially for less frequent monitoring under paragraphs (b)(3)(iii) through (b)(3)(v) of this section.

(iii) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 quarters.

(iv) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every 4 quarters.

(v) At process units with less than 0.25 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 years.

(vi) The owner or operator shall keep a record of the monitoring schedule for each process unit.

(4) *Valve subgrouping.* For a process unit or a group of process units to which this subpart applies, an owner or operator may choose to subdivide the valves in the applicable process unit or group of process units and apply the provisions of paragraph (b)(3) of this section to each subgroup. If the owner or operator elects to subdivide the valves in the applicable process unit or group of process units, then the provisions of paragraphs (b)(4)(i) through (b)(4)(viii) of this section apply.

(i) The overall performance of total valves in the applicable process unit or group of process units to be subdivided shall be less than 2 percent leaking valves, as detected according to paragraphs (b)(1) and (b)(2) of this section and as calculated according to paragraphs (c)(1)(ii) and (c)(2) of this section.

(ii) The initial assignment or subsequent reassignment of valves to subgroups shall be governed by the provisions of paragraphs (b)(4)(ii)(A) through (b)(4)(ii)(C) of this section.

(A) The owner or operator shall determine which valves are assigned to each subgroup. Valves with less than one 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 one year of monitoring data have been obtained.

(B) 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 that less frequently monitored subgroup's associated percent leaking valves calculation for that monitoring event.

(C) 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 (for example, 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.

(iii) The owner or operator shall determine every 6 months if the overall performance of total valves in the applicable process unit or group of process units 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 applicable process unit or group of process units is 2 percent leaking valves or greater, the owner or operator shall no longer subgroup and shall revert to the program required in paragraphs (b)(1) through (b)(3) of this section for that applicable process unit or group of process units. An owner or operator can again elect to comply with the valve subgrouping procedures of paragraph (b)(4) of this section if future overall performance of total valves in the process unit or groups of process units is again less than 2 percent. The overall performance of total valves in the applicable process unit or group of process units shall be calculated as a weighted average of the percent leaking valves of each subgroup according to the following equation:

$$\%V_{LO} = \frac{\sum_{i=1}^{n} (\%V_{Li} \times V_i)}{\sum_{i=1}^{n} V_i} \qquad (106\text{-}1)$$

where:

$\%V_{LO}$=Overall performance of total valves in the applicable process unit or group of process units

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

V_i=Number of valves in subgroup i.

n=Number of subgroups.

(iv) The owner or operator shall maintain records specified in paragraphs (b)(4)(iv)(A) through (b)(4)(iv)(D) of this section.

(A) Which valves are assigned to each subgroup,

(B) Monitoring results and calculations made for each subgroup for each monitoring period,

(C) Which valves are reassigned, the last monitoring result prior to reassignment, and when they were reassigned, and

(D) The results of the semiannual overall performance calculation required in paragraph (b)(4)(iii) of this section.

(v) 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 begin or end subgrouping valves. The notification shall identify the participating process units and the number of valves assigned to each subgroup, if applicable, and may be included in the next periodic report.

(vi) The owner or operator shall submit in the periodic reports the information specified in paragraphs (b)(4)(vi)(A) and (b)(4)(vi)(B) of this section.

(A) Total number of valves in each subgroup, and

(B) Results of the semiannual overall performance calculation required by paragraph (b)(4)(iii) of this section.

(vii) To determine the monitoring frequency for each subgroup, the calculation procedures of paragraph (c)(2) of this section shall be used.

(viii) Except for the overall performance calculations required by paragraphs (b)(4)(i) and (iii) of this section, each subgroup shall be treated as if it were a separate process unit for the purposes of applying the provisions of this section.

(c) *Percent leaking valves calculation.*—(1) *Calculation basis and procedures.* (i) The owner or operator

shall decide no later than the implementation date of this part or upon revision of an operating permit whether to calculate percent leaking valves on a process unit or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis and this shall be the basis used for comparison with the subgrouping criteria specified in paragraph (b)(4)(i) of this section.

(ii) The percent leaking valves for each monitoring period for each process unit or valve subgroup, as provided in paragraph (b)(4) of this section, shall be calculated using the following equation: where:

$$\%V_L=(V_L/V_T)\times 100 \quad (106\text{–}2)$$

Where:

$\%V_L$=Percent leaking valves.

V_L=Number of valves found leaking, excluding nonrepairable valves as provided in paragraph (c)(3) of this section.

V_T=The sum of the total number of valves monitored.

(2) *Calculation for monitoring frequency.* When determining monitoring frequency for each process unit or valve 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 monitoring periods. When determining monitoring frequency for each process unit or valve 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 monitoring periods.

(3) *Nonrepairable valves.* (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 (c)(3)(ii) of this section. Otherwise, a number of nonrepairable valves (identified and included in the percent leaking valves calculation in a previous period) up to a maximum of 1 percent of the total number of valves in regulated material service at a process unit 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 regulated material service at a process unit, the number of nonrepairable valves exceeding 1 percent of the total number of valves in regulated material service shall be included in the calculation of percent leaking valves.

(d) *Leak repair.* (1) If a leak is determined pursuant to paragraph (b), (e)(1), or (e)(2) of this section, then the leak shall be repaired using the procedures in § 65.105, as applicable.

(2) When a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. The monitoring required by paragraph (d) of this section is in addition to the monitoring required to satisfy the definition of repair.

(i) The monitoring shall be conducted as specified in § 65.104 (b) and (c), as appropriate, to determine whether the valve has resumed leaking.

(ii) Periodic monitoring required by paragraph (b) of this section may be used to satisfy the requirements of paragraph (d) of this section if the timing of the monitoring period coincides with the time specified in paragraph (d) of this section. Alternatively, other monitoring may be performed to satisfy the requirements of paragraph (d) of this section regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in paragraph (d) of this section.

(iii) If a leak is detected by monitoring that is conducted pursuant to paragraph (d) of this section, the owner or operator shall follow the provisions of paragraphs (d)(2)(iii)(A) and (d)(2)(iii)(B) of this section to determine whether that valve must be counted as a leaking valve for purposes of paragraph (c)(1)(ii) of this section.

(A) If the owner or operator elected to use periodic monitoring required by paragraph (b) of this section to satisfy the requirements of paragraph (d) of this section, then the valve shall be counted as a leaking valve.

(B) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by paragraph (b) of this section, to satisfy the requirements of paragraph (d) of this section, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

(e) *Special provisions for valves*—(1) *Unsafe-to-monitor valves.* Any valve that is designated as described in § 65.103(c)(1) as an unsafe-to-monitor valve is exempt from the requirements of paragraph (b) of this section and the owner or operator shall monitor the valve according to the written plan specified in § 65.103(c)(4).

(2) *Difficult-to-monitor valves.* Any valve that is designated as described in § 65.103(c)(2) as a difficult-to-monitor valve is exempt from the requirements of paragraph (b) of this section and the owner or operator shall monitor the valve according to the written plan specified in § 65.103(c)(4).

(3) *Less than 250 valves.* Any equipment located at a plant site with fewer than 250 valves in regulated material service is exempt from the requirements for monthly monitoring specified in paragraph (b)(3)(i) of this section. Instead, the owner or operator shall monitor each valve in regulated material service for leaks once each quarter or comply with paragraph (b)(4)(iii), (b)(4)(iv), or (b)(4)(v) of this section except as provided in paragraphs (e)(1) and (e)(2) of this section.

§ 65.107 Standards: Pumps in light liquid service.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(b) *Leak detection.* Unless otherwise specified in § 65.102(b) or paragraphs (e)(1) through (e)(6) of this section, the owner or operator shall monitor each pump to detect leaks and shall comply with all other provisions of this section.

(1) *Monitoring method.* The pumps shall be monitored monthly to detect leaks by the method specified in § 65.104(b), (c), and (e).

(2) *Instrument reading that defines a leak.* The instrument reading that defines a leak is specified in paragraphs (b)(2)(i) through (b)(2)(iii) of this section.

(i) 5,000 parts per million or greater for pumps handling polymerizing monomers;

(ii) 2,000 parts per million or greater for pumps in food/medical service; and

(iii) 1,000 parts per million or greater for all other pumps.

(3) *Leak repair exception.* For pumps to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.

(4) *Visual inspection.* Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) The owner or operator shall monitor the pump as specified in § 65.104(b), (c), and (e). If the

instrument reading indicates a leak as specified in paragraph (b)(2) of this section, a leak is detected and it shall be repaired using the procedures in § 65.105, except as specified in paragraph (b)(3) of this section; or

(ii) The owner or operator shall eliminate the visual indications of liquids dripping.

(c) *Percent leaking pumps calculation.* (1) The owner or operator shall decide no later than the implementation date of this part or upon revision of an operating permit whether to calculate percent leaking pumps on a process unit basis or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis.

(2) If, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of § 65.116.

(3) The number of pumps at a process unit shall be the sum of all the pumps in regulated material service, except that pumps found leaking in a continuous process unit within 1 month after startup of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

(4) Percent leaking pumps shall be determined by the following equation:

$$\%P_L = ((P_L - P_S)/(P_T - P_S)) * 100$$

(107–1) where:

$\%P_L$ = Percent leaking pumps.

P_L = Number of pumps found leaking as determined through monthly monitoring as required in paragraph (b)(1) of this section.

P_S = Number of pumps leaking within 1 month of startup during the current monitoring period.

P_T = Total pumps in regulated material service, including those meeting the criteria in paragraphs (e)(1) and (e)(2) of this section.

(d) *Leak repair.* If a leak is detected pursuant to paragraph (b) of this section, then the leak shall be repaired using the procedures in § 65.105, as applicable, unless otherwise specified in paragraphs (b)(4) of this section for leaks identified by visual indications of liquids dripping.

(e) *Special provisions for pumps*—(1) *Dual mechanical seal pumps.* Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (b) of this section, provided the requirements specified in paragraphs (e)(1)(i) through (e)(1)(viii) of this section are met.

(i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. The owner or operator shall keep records of the design criteria and an explanation of the design criteria, and any changes to these criteria and the reasons for the changes.

(ii) Each dual mechanical seal system shall meet the requirements specified in paragraph (e)(1)(ii)(A), (e)(1)(ii)(B), or (e)(1)(ii)(C) of this section.

(A) Each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times (except periods of start-up, shutdown, or malfunction) greater than the pump stuffing box pressure; or

(B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 65.118; or

(C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(iii) The barrier fluid is not in light liquid service.

(iv) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(v) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (e)(1)(v)(A) or (e)(1)(v)(B) of this section.

(A) The owner or operator shall monitor the pump as specified in § 65.104(b), (c), and (e) to determine if there is a leak of regulated material in the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected and it shall be repaired using the procedures in § 65.105; or

(B) The owner or operator shall eliminate the visual indications of liquids dripping.

(vi) If indications of liquids dripping from the pump seal exceed the criteria established in paragraph (e)(1)(i) of this section, or if based on the criteria established in paragraph (e)(1)(i) of this section the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

(vii) Each sensor as described in paragraph (e)(1)(iv) of this section is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.

(viii) When a leak is detected pursuant to paragraph (e)(1)(vi) of this section, it shall be repaired as specified in § 65.105(a).

(2) *No external shaft.* Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the monitoring requirements of paragraph (b) of this section.

(3) *Routed to a process or fuel gas system or equipped with a closed vent system.* Any pump that is routed to a process or fuel gas system or equipped with a closed vent system that captures and transports leakage from the pump to a control device meeting the requirements of § 65.115 is exempt from the monitoring requirements of paragraph (b) of this section.

(4) *Unmanned plant site.* Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (b)(4) and (e)(1)(v) of this section, and the daily requirements of paragraph (e)(1)(vii) of this section provided that each pump is visually inspected as often as practical and at least monthly.

(5) *Ninety percent exemption.* If more than 90 percent of the pumps at a process unit meet the criteria in either paragraph (e)(1) or (e)(2) of this section, the process unit is exempt from the requirements of paragraph (b) of this section.

(6) *Unsafe-to-monitor pumps.* Any pump that is designated as described in § 65.103(c)(1) as an unsafe-to-monitor pump is exempt from the monitoring requirements of paragraph (b) of this section and the repair requirements of § 65.105 and the owner or operator shall monitor the pump according to the written plan specified in § 65.103(c)(4).

§ 65.108 Standards: Connectors in gas/vapor service and in light liquid service.

(a) *Compliance schedule.* The owner or operator shall monitor all connectors in each process unit initially for leaks by the later of either 12 months after the implementation date as specified in § 65.1(f) of subpart A of this part or 12 months after initial startup, whichever is later. If all connectors in each process unit have been monitored for leaks prior to the implementation date specified in § 65.1(f) of subpart A of this part, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner

or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

(b) *Leak detection.* Except as allowed in § 65.102(b) or as specified in paragraph (e) of this section, the owner or operator shall monitor all connectors in gas/vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section.

(1) *Monitoring method.* The connectors shall be monitored to detect leaks by the method specified in § 65.104(b), (c), and (e).

(2) *Instrument reading that defines a leak.* If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

(3) *Monitoring Periods.* The owner or operator shall perform monitoring, subsequent to the initial monitoring required in paragraph (a) of this section, as specified in paragraphs (b)(3)(i) through (b)(3)(iii) of this section, and shall comply with the requirements of paragraphs (b)(3)(iv) and (b)(3)(v) of this section. The required period in which monitoring must be conducted shall be determined from paragraphs (b)(3)(i) through (b)(3)(iii) of this section using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in paragraph (c) of this subpart.

(i) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

(ii) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of paragraph (b)(3)(ii) of this section by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4 year monitoring period.

(iii) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in paragraph (b)(3)(iii)(A) of this section and either paragraph (b)(3)(iii)(B) or (b)(3)(iii)(C) of this section, as appropriate.

(A) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

(B) If the percent leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant to paragraph (b)(3) of this section, based on the percent leaking connectors of the total monitored connectors.

(C) If the percent leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If, during the monitoring conducted pursuant to paragraphs (b)(3)(i) through (b)(3)(iii) of this section, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit.

(c) *Percent leaking connectors calculation.* For use in determining the monitoring frequency as specified in paragraphs (a), and (b)(3) of this section, the percent leaking connectors as used in paragraphs (a) and (b)(3) of this section shall be calculated by using the following equation:

$$\%C_L = C_L / C_t * 100 \qquad (108\text{–}1)$$

Where:

$\%C_L$=Percent leaking connectors as determined through monitoring required in paragraphs (a) and (b) of this section.

C_L=Number of connectors measured at 500 parts per million or greater by the method specified in § 65.104(b).

C_t=Total number of monitored connectors in the process unit.

(d) *Leak repair.* If a leak is detected pursuant to paragraphs (a) and (b) of this section, then the leak shall be repaired using the procedures in § 65.105, as applicable.

(e) *Special provisions for connectors.*—(1) *Unsafe-to-monitor connectors.* Any connector that is designated, as described in § 65.103(c)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs (b)(1) through (b)(3) of this section and the owner or operator shall monitor according to the written plan specified in § 65.103(c)(4).

(2) *Inaccessible, ceramic, or ceramic-lined connectors.* (i) Any connector that is inaccessible or that is ceramic or ceramic-lined (for example, porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (b) of this section and from the recordkeeping and reporting requirements of §§ 65.119 and 65.120. An inaccessible connector is one that meets any of the provisions specified in paragraphs (e)(2)(i)(A) through (e)(2)(i)(F), as applicable.

(A) Buried;

(B) Insulated in a manner that prevents access to the connector by a monitor probe;

(C) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(D) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground.

(E) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold;

(F) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines or would risk damage to equipment.

(ii) If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

§ 65.109 Standards: Agitators in gas/vapor service and in light liquid service.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(b) *Leak detection.*—(1) *Monitoring method.* Each agitator seal shall be monitored monthly to detect leaks by the methods specified in § 65.104(b), (c), and (e) except as provided in § 65.102(b).

(2) *Instrument reading that defines a leak.* If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.

(3) *Visual inspection.* Each agitator seal shall be checked by visual

inspection each calendar week for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal, the owner or operator shall follow the procedure specified in either paragraph (b)(3)(ii)(A) or (b)(3)(ii)(B) of this section.

(A) The owner or operator shall monitor the agitator seal as specified in § 65.104(b), (c), and (e) to determine if there is a leak of regulated material. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected, and it shall be repaired using the procedures in § 65.105;

(B) The owner or operator shall eliminate the indications of liquids dripping from the pump seal.

(c) [Reserved]

(d) *Leak repair.* If a leak is detected, then the leak shall be repaired using the procedures in § 65.105(a).

(e) *Special provisions for agitators—* (1) *Dual mechanical seal.* Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (b) of this section provided the requirements specified in paragraphs (e)(1)(i) through (e)(1)(vi) of this section are met.

(i) Each dual mechanical seal system shall meet the applicable requirement specified in paragraph (e)(1)(i)(A), (e)(1)(i)(B), or (e)(1)(i)(C) of this section.

(A) Operated with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or

(B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system, or connected by a closed vent system to a control device that meets the requirements of § 65.115; or

(C) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(ii) The barrier fluid is not in light liquid service.

(iii) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(iv) Each agitator seal is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (e)(1)(iv)(A) or (e)(1)(iv)(B) of this section.

(A) The owner or operator shall monitor the agitator seal as specified in § 65.104(b) (c), and (e), to determine the presence of regulated material in the barrier fluid. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected and it shall be repaired using the procedures in § 65.105; or

(B) The owner or operator shall eliminate the visual indications of liquids dripping.

(v) Each sensor as described in paragraph (e)(1)(iii) of this section is observed daily or is equipped with an alarm unless the agitator seal is located within the boundary of an unmanned plant site.

(vi) The owner or operator of each dual mechanical seal system shall meet the requirements specified in paragraphs (e)(1)(vi)(A) and (e)(1)(vi)(B).

(A) The owner or operator shall determine based on design considerations and operating experience criteria that indicates failure of the seal system, the barrier fluid system, or both and that are applicable to the presence and frequency of drips. If indications of liquids dripping from the agitator seal exceed the criteria, or if based on the criteria the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected and shall be repaired pursuant to § 65.105, as applicable.

(B) The owner or operator shall keep records of the design criteria and an explanation of the design criteria, and any changes to these criteria and the reasons for the changes.

(2) *No external shaft.* Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from paragraph (b) of this section.

(3) *Routed to a process or fuel gas system or equipped with a closed vent system.* Any agitator that is routed to a process or fuel gas system or equipped with a closed vent system that captures and transports leakage from the agitator to a control device meeting the requirements of § 65.115 is exempt from the requirements of paragraph (b) of this section.

(4) *Unmanned plant site.* Any agitator that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (b)(3) and (e)(1)(iv) of this section, and the daily requirements of paragraph (e)(1)(v) of this section provided that each agitator is visually inspected as often as practical and at least monthly.

(5) *Difficult-to-monitor agitator seals.* Any agitator seal that is designated as described in § 65.103(c)(2) as a difficult-to-monitor agitator seal is exempt from the requirements of paragraph (b) of this section and the owner or operator shall monitor the agitator seal according to the written plan specified in § 65.103(c)(4).

(6) *Equipment obstructions.* Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of paragraph (b) of this section.

(7) *Unsafe-to-monitor agitator seals.* Any agitator seal that is designated as described in § 65.103(c)(1)(i) as an unsafe-to-monitor agitator seal is exempt from the requirements of paragraph (b) of this section and the owner or operator of the agitator seal monitors the agitator seal according to the written plan specified in § 65.103(c)(4).

§ 65.110 Standards: Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service; and instrumentation systems.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(b) *Leak detection* (1) *Monitoring method.* Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems shall be monitored within 5 calendar days by the method specified in § 65.104 (b), (c), and (e) if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired as required in paragraph (c) of this section.

(2) *Instrument reading that defines a leak.* If an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million or greater for pumps in food/medical service, 1,000 parts per million or greater for all other pumps, or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured pursuant to paragraph (b)(1) of this section, a leak is detected and it shall be repaired pursuant to § 65.105, as applicable.

(c) *Leak Repair.* For equipment identified in paragraph (b) of this section that is not monitored by the method specified in § 65.104(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak

check using soap solution; or that the system will hold a test pressure.

§ 65.111 Standards: Pressure relief devices in gas/vapor service.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(b) *Compliance standard.* Except during pressure releases as provided for in paragraph (c) of this section, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million as measured by the method specified in § 65.104(b), (c), and (e).

(c) *Pressure relief requirements.* (1) After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million, as soon as practical, but no later than 5 calendar days after each pressure release except as provided in § 65.105(d).

(2) The pressure relief device shall be monitored no later than 5 calendar days after the pressure release and being returned to regulated material service to confirm the condition indicated by an instrument reading of less than 500 parts per million as measured by the method specified in § 65.104(b), (c), and (e).

(3) The owner or operator shall record the dates and results of the monitoring required by paragraph (c)(2) of this section following a pressure release including maximum instrument reading measured during the monitoring and the background level measured if the instrument reading is adjusted for background.

(d) *Pressure relief devices routed to a process or fuel gas system or equipped with a closed vent system and control device.* Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage from the pressure relief device to a control device meeting the requirements of either §§ 65.115 or 65.102(b) is exempt from the requirements of paragraphs (b) and (c) of this section.

(e) *Rupture disk exemption.* Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (b) and (c) of this section provided the owner or operator installs a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release, but no later than 5 calendar days after each pressure release except as provided in § 65.105(d).

§ 65.112 Standards: Compressors.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(b) *Seal system standard.* Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere except as provided in § 65.102(b) and paragraphs (e) and (f) of this section. Each compressor seal system shall meet the applicable requirements specified in paragraph (b)(1), (b)(2), or (b)(3) of this section.

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure at all times (except during periods of start-up, shutdown, or malfunction); or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system, or connected by a closed vent system to a control device that meets the requirements of § 65.115; or

(3) Equipped with a closed-loop system that purges the barrier fluid directly into a process stream.

(c) *Barrier fluid system.* The barrier fluid shall not be in light liquid service. Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. Each sensor shall be observed daily or shall be equipped with an alarm unless the compressor is located within the boundary of an unmanned plant site.

(d) *Failure criterion and leak detection.* (1) The owner or operator shall determine based on design considerations and operating experience a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion, a leak is detected and shall be repaired pursuant to § 65.105, as applicable.

(2) The owner or operator shall keep records of the design criteria and an explanation of the design criteria, and any changes to these criteria and the reasons for the changes.

(e) *Routed to a process or fuel gas system or equipped with a closed vent system.* A compressor is exempt from the requirements of paragraphs (b) through (d) of this section if it is equipped with a system to capture and transport leakage from the compressor drive shaft seal to a process or a fuel gas system or to a closed vent system that captures and transports leakage from the compressor to a control device meeting the requirements of § 65.115.

(f) *Alternative compressor standard.* (1) Any compressor that is designated as described in § 65.103(e) shall operate at all times with an instrument reading of less than 500 parts per million . A compressor so designated is exempt from the requirements of paragraphs (b) through (d) of this section if the compressor is demonstrated initially upon designation, annually, and at other times requested by the Administrator to be operating with an instrument reading of less than 500 parts per million as measured by the method specified in § 65.104(b), (c), and (e). A compressor may not be designated or operated as having an instrument reading of less than 500 parts per million as described in § 65.103(e) if the compressor has a maximum instrument reading greater than 500 parts per million.

(2) The owner or operator shall record the dates and results of each compliance test including the background level measured and the maximum instrument reading measured during each compliance test.

§ 65.113 Standards: Sampling connection systems.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(b) *Equipment requirement.* Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system except as provided in paragraph (d) of this section or § 65.102(b). Gases displaced during filling of the sample container are not required to be collected or captured.

(c) *Equipment design and operation.* Each closed-purge, closed-loop, or closed vent system as required in paragraph (b) of this section shall meet the applicable requirements specified in paragraphs (c)(1) through (c)(5) of this section.

(1) The system shall return the purged process fluid directly to a process line or to a fuel gas system; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that meets the requirements of § 65.115; or

(4) Collect, store, and transport the purged process fluid to a system or facility identified in paragraph (c)(4)(i), (c)(4)(ii), or (c)(4)(iii) of this section.

(i) A waste management unit as defined in 40 CFR 63.111 of subpart G, if the waste management unit is

complying with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams. For sources referenced to this part from 40 CFR part 63, subpart H, and if the purged process fluid does not contain any organic HAP listed in table 9 of 40 CFR part 63, subpart G, the waste management unit need not be subject to and operated in compliance with the requirements of 40 CFR part 63, subpart G, applicable to Group 1 wastewater steams provided the facility has a National Pollution Discharge Elimination System (NPDES) permit or sends the wastewater to an NPDES-permitted facility.

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR parts 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(5) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

(d) *In-situ sampling systems.* In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (b) and (c) of this section.

§ 65.114 Standards: Open-ended valves or lines.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(b) *Equipment and operational requirements.* (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve except as provided in § 65.102(b) and paragraphs (c) and (d) of this section. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. The operational provisions of paragraphs (b)(2) and (b)(3) of this section also apply.

(2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (b)(1) of this section at all other times.

(c) *Emergency shutdown exemption.* Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from the requirements of paragraph (b) of this section.

(d) *Polymerizing materials exemption.* Open-ended valves or lines containing materials that would autocatalytically polymerize or would present an explosion, serious over pressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraph (b) of this section are exempt from the requirements of paragraph (b) of this section.

§ 65.115 Standards: Closed vent systems and control devices; or emissions routed to a fuel gas system or process.

(a) *Compliance schedule.* The owner or operator shall comply with this section no later than the implementation date specified in § 65.1(f) of subpart A of this part.

(b) *Compliance standard.* (1) Owners or operators of closed vent systems and nonflare control devices used to comply with provisions of this subpart shall design and operate the closed vent systems and nonflare control devices to reduce emissions of regulated material with an efficiency of 95 percent or greater or to reduce emissions of regulated material to a concentration of 20 parts per million by volume or, for an enclosed combustion device, to provide a minimum residence time of 0.50 second at a minimum of 760 °C (1400 °F). Owners and operators of closed vent systems and nonflare control devices used to comply with this part shall comply with the provisions of § 65.142(d) of subpart G of this part, except as provided in § 65.102(b). Note that this includes the startup, shutdown, and malfunction plan specified in § 65.6.

(2) Owners or operators of closed vent systems and flares used to comply with the provisions of this subpart shall design and operate the flare as specified in § 65.142(d) of subpart G of this part, except as provided in § 65.102(b). Note that this includes the startup, shutdown, and malfunction plan specified in § 65.6.

(3) Owners or operators routing emissions from equipment leaks to a fuel gas system or process shall comply with the provisions of § 65.142(d) of subpart G of this part, except as provided in § 65.102(b).

§ 65.116 Quality improvement program for pumps.

(a) *Criteria.* If, on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit (or plant site) or three pumps in a process unit (or plant site) leak, the owner or operator shall comply with the requirements specified in paragraphs (a)(1) and (a)(2) of this section.

(1) Pumps that are in food/medical service or in polymerizing monomer service shall comply with all requirements except for those specified in paragraph (d)(8) of this section.

(2) Pumps that are not in food/medical or polymerizing monomer service shall comply with all requirements of this section.

(b) *Exiting the QIP.* The owner or operator shall comply with the requirements of this section until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps calculated as a 6-month rolling average in the process unit (or plant site). Once the performance level is achieved, the owner or operator shall comply with the requirements in § 65.107.

(c) *Resumption of QIP.* If in a subsequent monitoring period, the process unit (or plant site) has greater than 10 percent of the pumps leaking or three pumps leaking (calculated as a 6-month rolling average), the owner or operator shall resume the quality improvement program starting at performance trials.

(d) *QIP requirements.* The quality improvement program shall meet the requirements specified in paragraphs (d)(1) through (d)(8) of this section.

(1) The owner or operator shall comply with the requirements in § 65.107.

(2) *Data collection.* The owner or operator shall collect the data specified in paragraphs (d)(2)(i) through (d)(2)(v) of this section and maintain records for each pump in each process unit (or plant site) subject to the quality improvement program. The data may be collected and the records may be maintained on a process unit or plant site basis.

(i) Pump type (for example, piston, horizontal or vertical centrifugal, gear, bellows); pump manufacturer; seal type and manufacturer; pump design (for example, external shaft, flanged body); materials of construction; if applicable, barrier fluid or packing material; and year installed.

(ii) Service characteristics of the stream such as discharge pressure, temperature, flow rate, corrosivity, and annual operating hours.

(iii) The maximum instrument readings observed in each monitoring observation before repair, response factor for the stream if appropriate, instrument model number, and date of the observation.

(iv) If a leak is detected, the repair methods used and the instrument readings after repair.

(v) If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units, a description of any maintenance or quality assurance programs used in the process unit that are intended to improve emission performance.

(3) The owner or operator shall continue to collect data on the pumps as long as the process unit (or plant site) remains in the quality improvement program.

(4) *Pump or pump seal inspection.* The owner or operator shall inspect all pumps or pump seals that exhibited frequent seal failures and were removed from the process unit due to leaks. The inspection shall determine the probable cause of the pump seal failure or of the pump leak and shall include recommendations, as appropriate, for design changes or changes in specifications to reduce leak potential.

(5) *Data analysis.* (i) The owner or operator shall analyze the data collected to comply with the requirements of paragraph (d)(2) of this section to determine the services, operating or maintenance practices, and pump or pump seal designs or technologies that have poorer than average emission performance and those that have better than average emission performance. The analysis shall determine if specific trouble areas can be identified on the basis of service, operating conditions or maintenance practices, equipment design, or other process-specific factors.

(ii) The analysis shall also be used to determine if there are superior performing pump or pump seal technologies that are applicable to the service(s), operating conditions, or pump or pump seal designs associated with poorer than average emission performance. A superior performing pump or pump seal technology is one with a leak frequency of less than 10 percent for specific applications in the process unit or plant site. A candidate superior performing pump or pump seal technology is one demonstrated or reported in the available literature or through a group study as having low emission performance and as being capable of achieving less than 10 percent leaking pumps in the process unit (or plant site).

(iii) The analysis shall include consideration of the information specified in paragraphs (d)(5)(iii)(A) through (d)(5)(iii)(C) of this section.

(A) The data obtained from the inspections of pumps and pump seals removed from the process unit due to leaks;

(B) Information from the available literature and from the experience of other plant sites that will identify pump designs or technologies and operating conditions associated with low emission performance for specific services; and

(C) Information on limitations on the service conditions for the spump seal technology operating conditions as well as information on maintenance procedures to ensure continued low emission performance.

(iv) The data analysis may be conducted through an inter- or intracompany program (or through some combination of the two approaches) and may be for a single process unit, a plant site, a company, or a group of process units.

(v) The first analysis of the data shall be completed no later than 18 months after the start of the quality improvement program. The first analysis shall be performed using data collected for a minimum of 6 months. An analysis of the data shall be done each year the process unit is in the quality improvement program.

(6) *Trial evaluation program.* A trial evaluation program shall be conducted at each plant site for which the data analysis does not identify use of superior performing pump seal technology or pumps that can be applied to the areas identified as having poorer than average performance except as provided in paragraph (d)(6)(v) of this section. The trial program shall be used to evaluate the feasibility of using in the process unit (or plant site) the pump designs or seal technologies, and operating and maintenance practices that have been identified by others as having low emission performance.

(i) The trial evaluation program shall include on-line trials of pump seal technologies or pump designs and operating and maintenance practices that have been identified in the available literature or in analysis by others as having the ability to perform with leak rates below 10 percent in similar services, as having low probability of failure, or as having no external actuating mechanism in contact with the process fluid. If any of the candidate superior performing pump seal technologies or pumps is not included in the performance trials, the reasons for rejecting specific technologies from consideration shall be documented as required in paragraph (e)(3)(ii) of this section.

(ii) The number of pump seal technologies or pumps in the trial evaluation program shall be the lesser of 1 percent or two pumps for programs involving single process units and the lesser of 1 percent or five pumps for programs involving a plant site or groups of process units. The minimum number of pumps or pump seal technologies in a trial program shall be one.

(iii) The trial evaluation program shall specify and include documentation of the information specified in paragraphs (d)(6)(iii)(A) through (d)(6)(iii)(D) of this section.

(A) The candidate superior performing pump seal designs or technologies to be evaluated, the stages for evaluating the identified candidate pump designs or pump seal technologies, including the time period necessary to test the applicability;

(B) The frequency of monitoring or inspection of the equipment;

(C) The range of operating conditions over which the component will be evaluated; and

(D) Conclusions regarding the emission performance and the appropriate operating conditions and services for the trial pump seal technologies or pumps.

(iv) The performance trials shall initially be conducted at least for a 6-month period beginning not later than 18 months after the start of the quality improvement program. No later than 24 months after the start of the quality improvement program, the owner or operator shall have identified pump seal technologies or pump designs that combined with appropriate process, operating, and maintenance practices operate with low emission performance for specific applications in the process unit. The owner or operator shall continue to conduct performance trials as long as no superior performing design or technology has been identified except as provided in paragraph (d)(6)(vi) of this section. The initial list of superior emission performance pump designs or pump seal technologies shall be amended in the future, as appropriate, as additional information and experience are obtained.

(v) Any plant site with fewer than 400 valves and owned by a corporation with fewer than 100 employees shall be exempt from trial evaluations of pump seals or pump designs. Plant sites exempt from the trial evaluations of pumps shall begin the pump seal or pump replacement program at the start of the fourth year of the quality improvement program.

(vi) An owner or operator who has conducted performance trials on all alternative superior emission performance technologies suitable for the required applications in the process unit may stop conducting performance

trials provided that a superior performing design or technology has been demonstrated or there are no technically feasible alternative superior technologies remaining. The owner or operator shall prepare an engineering evaluation documenting the physical, chemical, or engineering basis for the judgment that the superior emission performance technology is technically infeasible or demonstrating that it would not reduce emissions.

(7) *Quality assurance program.* Each owner or operator shall prepare and implement a pump quality assurance program that details purchasing specifications and maintenance procedures for all pumps and pump seals in the process unit. The quality assurance program may establish any number of categories, or classes, of pumps as needed to distinguish among operating conditions and services associated with poorer than average emission performance as well as those associated with better than average emission performance. The quality assurance program shall be developed considering the findings of the data analysis required under paragraph (d)(5) of this section, if applicable, the findings of the trial evaluation required in paragraph (d)(6) of this section, and the operating conditions in the process unit. The quality assurance program shall be updated each year as long as the process unit has the greater of either 10 percent or more leaking pumps or has three leaking pumps.

(i) The quality assurance program shall meet the requirements specified in paragraphs (d)(7)(i)(A) through (d)(7)(i)(D) of this section.

(A) Establish minimum design standards for each category of pumps or pump seal technology. The design standards shall specify known critical parameters such as tolerance, manufacturer, materials of construction, previous usage, or other applicable identified critical parameters;

(B) Require that all equipment orders specify the design standard (or minimum tolerances) for the pump or the pump seal;

(C) Provide for an audit procedure for quality control of purchased equipment to ensure conformance with purchase specifications. The audit program may be conducted by the owner or operator of the plant site or process unit or by a designated representative; and

(D) Detail off-line pump maintenance and repair procedures. These procedures shall include provisions to ensure that rebuilt or refurbished pumps and pump seals will meet the design specifications for the pump category and will operate so that emissions are minimized.

(ii) The quality assurance program shall be established no later than the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees, and no later than the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees.

(8) *Pump or pump seal replacement.* Beginning at the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees and at the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees, the owner or operator shall replace as described in paragraphs (d)(8)(i) and (d)(8)(ii) of this section the pumps or pump seals that are not superior emission performance technology with pumps or pump seals that have been identified as superior emission performance technology and that comply with the quality assurance standards for the pump category. Superior emission performance technology is that category or design of pumps or pump seals with emission performance that when combined with appropriate process, operating, and maintenance practices will result in less than 10 percent leaking pumps for specific applications in the process unit or plant site. Superior emission performance technology includes material or design changes to the existing pump, pump seal, seal support system, installation of multiple mechanical seals or equivalent, or pump replacement.

(i) Pumps or pump seals shall be replaced at the rate of 20 percent per year based on the total number of pumps in light liquid service. The calculated value shall be rounded to the nearest nonzero integer value. The minimum number of pumps or pump seals shall be one. Pump replacement shall continue until all pumps subject to the requirements of § 65.107 are pumps determined to be superior performance technology.

(ii) The owner or operator may delay replacement of pump seals or pumps with superior technology until the next planned process unit shutdown provided the number of pump seals and pumps replaced is equivalent to the 20 percent or greater annual replacement rate.

(iii) The pumps shall be maintained as specified in the quality assurance program.

(e) *QIP recordkeeping.* In addition to the records required by paragraph (d)(2) of this section, the owner or operator shall maintain records for the period of the quality improvement program for the process unit as specified in paragraphs (e)(1) through (e)(6) of this section.

(1) When using a pump quality improvement program as specified in this section, record the information specified in paragraphs (e)(1)(i) through (e)(1)(iii) of this section.

(i) The rolling average percent leaking pumps.

(ii) Documentation of all inspections conducted under the requirements of paragraph (d)(4) of this section and any recommendations for design or specification changes to reduce leak frequency.

(iii) The beginning and ending dates while meeting the requirements of paragraph (d) of this section.

(2) If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair.

(3) Records of all analyses required in paragraph (d) of this section. The records will include the information specified in paragraphs (e)(3)(i) through (e)(3)(iv) of this section.

(i) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions, and the maintenance practices.

(ii) The reasons for rejecting specific candidate superior emission performing pump technology from performance trials.

(iii) The list of candidate superior emission performing valve or pump technologies and documentation of the performance trial program items required under paragraph (d)(6)(iii) of this section.

(iv) The beginning date and duration of performance trials of each candidate superior emission performing technology.

(4) All records documenting the quality assurance program for pumps as specified in paragraph (d)(7) of this section, including records indicating that all pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance.

(5) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in paragraph (d)(8) of this section.

(6) Information and data to show the corporation has fewer than 100 employees, including employees

providing professional and technical contracted services.

§ 65.117 Alternative means of emission limitation: Batch processes.

(a) *General requirement.* As an alternative to complying with the requirements of §§ 65.106 through 65.114 and 65.116, an owner or operator of a batch process that operates in regulated material service during the calendar year may comply with one of the standards specified in paragraphs (b) and (c) of this section, or the owner or operator may petition for approval of an alternative standard under the provisions of § 65.102(b). The alternative standards of this section provide the options of pressure testing or monitoring the equipment for leaks. The owner or operator may switch among the alternatives provided the change is documented as specified in paragraph (b)(7) of this section.

(b) *Pressure testing of the batch equipment.* The following requirements shall be met if an owner or operator elects to use pressure testing of batch product-process equipment to demonstrate compliance with this subpart.

(1) *Reconfiguration.* Each time equipment is reconfigured for production of a different product or intermediate, the batch product-process equipment train shall be pressure-tested for leaks before regulated material is first fed to the equipment and the equipment is placed in regulated material service.

(i) When the batch product-process equipment train is reconfigured to produce a different product, pressure testing is required only for the new or disturbed equipment.

(ii) Each batch product-process that operates in regulated material service during a calendar year shall be pressure-tested at least once during that calendar year.

(iii) Pressure testing is not required for routine seal breaks, such as changing hoses or filters, that are not part of the reconfiguration to produce a different product or intermediate.

(2) *Testing procedures.* The batch product-process equipment shall be tested either using the procedures specified in paragraph (b)(5) of this section for pressure vacuum loss or with a liquid using the procedures specified in paragraph (b)(6) of this section.

(3) *Leak detection.* (i) For pressure or vacuum tests using a gas, a leak is detected if the rate of change in pressure is greater than 6.9 kilopascals (1 pound per square inch gauge) in 1 hour or if there is visible, audible, or olfactory evidence of fluid loss.

(ii) For pressure tests using a liquid, a leak is detected if there are indications of liquids dripping or if there is other evidence of fluid loss.

(4) *Leak repair.* (i) If a leak is detected, it shall be repaired and the batch product-process equipment shall be retested before startup of the process.

(ii) If a batch product-process fails the retest or the second of two consecutive pressure tests, it shall be repaired as soon as practical but not later than 30 calendar days after the second pressure test except as specified in paragraph (e) of this section.

(5) *Gas pressure test procedure for pressure or vacuum loss.* The procedures specified in paragraphs (b)(5)(i) through (b)(5)(v) of this section shall be used to pressure test batch product-process equipment for pressure or vacuum loss to demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section.

(i) The batch product-process equipment train shall be pressurized with a gas to a pressure less than the set pressure of any safety relief devices or valves or to a pressure slightly above the operating pressure of the equipment, or alternatively the equipment shall be placed under a vacuum.

(ii) Once the test pressure is obtained, the gas source or vacuum source shall be shut off.

(iii) The test shall continue for not less than 15 minutes unless it can be determined in a shorter period of time that the allowable rate of pressure drop or of pressure rise was exceeded. The pressure in the batch product-process equipment shall be measured after the gas or vacuum source is shut off and at the end of the test period. The rate of change in pressure in the batch product-process equipment shall be calculated using the following equation:

$$\Delta(P/t)=(|P_f - P_i|)/(t_f - t_i) \quad (117–1)$$

Where:

$\Delta(P/t)$=Change in pressure, pounds per square inch gauge/hr.

P_f=Final pressure, pounds per square inch gauge.

P_i=Initial pressure, pounds per square inch gauge.

$t_f - t_i$=Elapsed time, hours.

(iv) The pressure shall be measured using a pressure measurement device (gauge, manometer, or equivalent) that has a precision of $\pm$2.5 millimeters mercury (0.10 inch of mercury) in the range of test pressure and is capable of measuring pressures up to the relief set pressure of the pressure relief device. If such a pressure measurement device is not reasonably available, the owner or operator shall use a pressure measurement device with a precision of at least ±10 percent of the test pressure of the equipment and shall extend the duration of the test for the time necessary to detect a pressure loss or rise that equals a rate of 1 pound per square inch gauge per hour (7 kilopascals per hour).

(v) An alternative procedure may be used for leak testing the equipment if the owner or operator demonstrates the alternative procedure is capable of detecting a pressure loss or rise.

(6) *Pressure test procedure using test liquid.* The procedures specified in paragraphs (b)(6)(i) through (b)(g)(iv) of this section shall be used to pressure test batch product-process equipment using a liquid to demonstrate compliance with the requirements of paragraph (b)(3)(ii) of this section.

(i) The batch product-process equipment train or section of the equipment train shall be filled with the test liquid (for example, water, alcohol) until normal operating pressure is obtained. Once the equipment is filled, the liquid source shall be shut off.

(ii) The test shall be conducted for a period of at least 60 minutes unless it can be determined in a shorter period of time that the test is a failure.

(iii) Each seal in the equipment being tested shall be inspected for indications of liquid dripping or other indications of fluid loss. If there are any indications of liquids dripping or of fluid loss, a leak is detected.

(iv) An alternative procedure may be used for leak testing the equipment if the owner or operator demonstrates the alternative procedure is capable of detecting losses of fluid.

(7) *Pressure testing recordkeeping.* The owner or operator of a batch product-process who elects to pressure test the batch product-process equipment train to demonstrate compliance with this subpart shall maintain records of the information specified in paragraphs (b)(7)(i) through (b)(7)(v) of this section.

(i) The identification of each product or product code produced during the calendar year. It is not necessary to identify individual items of equipment in a batch product-process equipment train.

(ii) Physical tagging of the equipment to identify that it is in regulated material service and subject to the provisions of this subpart is not required. Equipment in a batch product-process subject to the provisions of this subpart may be identified on a plant site plan, in log entries, or by other appropriate methods.

(iii) The dates of each pressure test required in paragraph (b) of this section,

the test pressure, and the pressure drop observed during the test.

(iv) Records of any visible, audible, or olfactory evidence of fluid loss.

(v) When a batch product-process equipment train does not pass two consecutive pressure tests, the information specified in paragraphs (b)(7)(v)(A) through (b)(7)(v)(E) of this section shall be recorded in a log and kept for 2 years.

(A) The date of each pressure test and the date of each leak repair attempt;

(B) Repair methods applied in each attempt to repair the leak;

(C) The reason for the delay of repair;

(D) The expected date for delivery of the replacement equipment and the actual date of delivery of the replacement equipment; and

(E) The date of successful repair.

(c) *Equipment monitoring.* The following requirements shall be met if an owner or operator elects to monitor the equipment in a batch process to detect leaks by the method specified in § 65.104(b) to demonstrate compliance with this subpart.

(1) The owner or operator shall comply with the requirements of §§ 65.106 through 65.116 as modified by paragraphs (c)(2) through (c)(4) of this section.

(2) The equipment shall be monitored for leaks by the method specified in § 65.104(b) when the equipment is in regulated material service or is in use with any other detectable material.

(3) The equipment shall be monitored for leaks as specified in paragraphs (c)(3)(i) through (c)(3)(iv) of this section.

(i) Each time the equipment is reconfigured for the production of a new product, the reconfigured equipment shall be monitored for leaks within 30 days of startup of the process. This initial monitoring of reconfigured equipment shall not be included in determining percent leaking equipment in the process unit.

(ii) Connectors shall be monitored in accordance with the requirements in § 65.108.

(iii) Equipment other than connectors shall be monitored at the frequencies specified in table 1 of this subpart. The operating time shall be determined as the proportion of the year the batch product-process that is subject to the provisions of this subpart is operating.

(iv) The monitoring frequencies specified in paragraph (c)(3)(iii) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor anytime during the specified monitoring period (for example, month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. For example, if the equipment is not operating during the scheduled monitoring period, the monitoring can be done during the next period when the process is operating.

(4) If a leak is detected, it shall be repaired as soon as practical but not later than 15 calendar days after it is detected except as provided in paragraph (e) of this section.

(d) *Added equipment recordkeeping.* (1) For batch product-process units that the owner or operator elects to monitor as provided under paragraph (c) of this section, the owner or operator shall prepare a list of equipment added to batch product-process units since the last monitoring period required in paragraphs (c)(3)(ii) and (c)(3)(iii) of this section.

(2) Maintain records demonstrating the proportion of the time during the calendar year the equipment is in use in a batch process that is subject to the provisions of this subpart. Examples of suitable documentation are records of time in use for individual pieces of equipment or average time in use for the process unit. These records are not required if the owner or operator does not adjust monitoring frequency by the time in use, as provided in paragraph (c)(3)(iii) of this section.

(3) Record and keep pursuant to § 65.4 of subpart A of this part the date and results of the monitoring required in paragraph (c)(3)(i) of this section for equipment added to a batch product-process unit since the last monitoring period required in paragraphs (c)(3)(ii) and (c)(3)(iii) of this section. If no leaking equipment is found during this monitoring, the owner or operator shall record that the inspection was performed. Records of the actual monitoring results are not required.

(e) *Delay of repair.* Delay of repair of equipment for which leaks have been detected is allowed if the replacement equipment is not available providing the conditions specified in paragraphs (e)(1) and (e)(2) of this section are met.

(1) Equipment supplies have been depleted and supplies had been sufficiently stocked before the supplies were depleted.

(2) The repair is made no later than 10 calendar days after delivery of the replacement equipment.

(f) *Periodic report contents.* For owners or operators electing to meet the requirements of paragraph (b) of this section, the periodic report to be filed pursuant to § 65.120(b) shall include the information listed in paragraphs (f)(1) through (f)(4) of this section for each process unit.

(1) Batch product-process equipment train identification;

(2) The number of pressure tests conducted;

(3) The number of pressure tests where the equipment train failed the pressure test; and

(4) The facts that explain any delay of repairs.

§ 65.118 Alternative means of emission limitation: Enclosed-vented process units.

(a) *Use of closed vent system and control device.* Process units enclosed in such a manner that all emissions from equipment leaks are vented through a closed vent system to a control device meeting the requirements of either § 65.115 or § 65.102(b) are exempt from the requirements of §§ 65.106 through 65.116. The enclosure shall be maintained under a negative pressure at all times while the process unit is in operation to ensure that all emissions are routed to a control device.

(b) *Recordkeeping.* Owners and operators choosing to comply with the requirements of this section shall maintain the records specified in paragraphs (b)(1) through (b)(3) of this section.

(1) Identification of the process unit(s) and the regulated materials they handle.

(2) A schematic of the process unit, enclosure, and closed vent system.

(3) A description of the system used to create a negative pressure in the enclosure to ensure that all emissions are routed to the control device.

§ 65.119 Recordkeeping provisions.

(a) *Recordkeeping system.* An owner or operator of more than one regulated source subject to the provisions of this subpart may comply with the recordkeeping requirements for these regulated sources in one recordkeeping system. The recordkeeping system shall identify each record by regulated source and the type of program being implemented (for example, quarterly monitoring, quality improvement) for each type of equipment. The records required by this subpart are summarized in paragraphs (b) and (c) of this section.

(b) *General equipment leak records.* (1) As specified in § 65.103(a) through (c), the owner or operator shall keep general and specific equipment identification if the equipment is not physically tagged and the owner or operator is electing to identify the equipment subject to subpart F of this part through written documentation such as a log or other designation.

(2) The owner or operator shall keep a written plan as specified in § 65.103(c)(4) for any equipment that is designated as unsafe- or difficult-to-monitor.

(3) The owner or operator shall maintain a record of the identity and an explanation as specified in § 65.103(d)(2) for any equipment that is designated as unsafe to repair.

(4) As specified in § 65.103(e), the owner or operator shall maintain a record of the identity of compressors operating with an instrument reading of less than 500 parts per million.

(5) The owner or operator shall keep records associated with the determination that equipment is in heavy liquid service as specified in § 65.103(f).

(6) The owner or operator shall keep records for leaking equipment as specified in § 65.104(e)(2).

(7) The owner or operator shall keep records for leak repair as specified in § 65.105(f) and records for delay of repair as specified in § 65.105(d).

(c) *Specific equipment leak records.* (1) For valves, the owner or operator shall maintain the records specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section.

(i) The monitoring schedule for each process unit as specified in § 65.106(b)(3)(i).

(ii) The valve subgrouping records specified in § 65.106(b)(4)(iv), if applicable.

(2) For pumps, the owner or operator shall maintain the records specified in paragraphs (c)(2)(i) through (c)(2)(iii) of this section.

(i) Documentation of pump visual inspections as specified in § 65.107(b)(4).

(ii) Documentation of dual mechanical seal pump visual inspections as specified in § 65.107(e)(1)(v).

(iii) For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes, as specified in § 65.107(e)(1)(i).

(3) For connectors, the owner or operator shall maintain the records specified in § 65.108(b)(3)(v) which identify a monitoring schedule for each process unit.

(4) For agitators equipped with a dual mechanical seal system that includes barrier fluid system, the owner or operator shall keep records as specified in § 65.109(e)(1)(vi)(B).

(5) For pressure relief devices in gas/vapor or light liquid service, the owner or operator shall keep records of the dates and results of monitoring following a pressure release, as specified in § 65.111(c)(3).

(6) For compressors, the owner or operator shall maintain the records specified in paragraphs (c)(6)(i) and (c)(6)(ii) of this section.

(i) For criteria as to failure of the seal system and/or the barrier fluid system, record the design criteria and explanations and any changes and the reason for the changes, as specified in § 65.112(d)(2).

(ii) For compressors operating under the alternative compressor standard, record the dates and results of each compliance test as specified in § 65.112(f)(2).

(7) For a pump QIP program, the owner or operator shall maintain the records specified in paragraphs (c)(7)(i) through (c)(7)(v) of this section.

(i) Individual pump records as specified in § 65.116(d)(2).

(ii) Trial evaluation program documentation as specified in § 65.116(d)(6)(iii).

(iii) Engineering evaluation documenting the basis for judgement that superior emission performance technology is not applicable as specified in § 65.116(d)(6)(vi).

(iv) Quality assurance program documentation as specified in § 65.116(d)(7).

(v) QIP records as specified in § 65.116(e).

(8) For process units complying with the batch process unit alternative, the owner or operator shall maintain the records specified in paragraphs (c)(8)(i) and (c)(8)(ii) of this section.

(i) Pressure test records as specified in § 65.117(b)(7).

(ii) Records for equipment added to the process unit as specified in § 65.117(d).

(9) For process units complying with the enclosed-vented process unit alternative, the owner or operator shall maintain the records for enclosed-vented process units as specified in § 65.118(b).

§ 65.120 Reporting provisions.

(a) *Initial Compliance Status Report.* Unless the information specified in paragraphs (a)(1) through (a)(3) has previously been submitted, each owner or operator shall submit an Initial Compliance Status Report according to the procedures in § 65.5(d) of subpart A of this part. The notification shall include the information listed in paragraphs (a)(1) through (a)(3) of this section, as applicable.

(1) The notification shall provide the information listed in paragraphs (a)(1)(i) through (a)(1)(iii) of this section for each process unit subject to the requirements of this subpart.

(i) Process unit identification.

(ii) Number of each equipment type (for example, valves, pumps) excluding equipment in vacuum service.

(iii) Method of compliance with the standard (for example, ''monthly leak detection and repair'' or ''equipped with dual mechanical seals'').

(2) The notification shall provide the information listed in paragraphs (a)(2)(i) and (a)(2)(ii) of this section for each process unit subject to the requirements of § 65.117(b).

(i) Batch products or product codes subject to the provisions of this subpart; and

(ii) Planned schedule for pressure testing when equipment is configured for production of products subject to the provisions of this subpart.

(3) The notification shall provide the information listed in paragraphs (c)(3)(i) and (c)(3)(ii) of this section for each process unit subject to the requirements in § 65.118.

(i) Process unit identification.

(ii) A description of the system used to create a negative pressure in the enclosure and the control device used to comply with the requirements of subpart G of this part.

(b) *Periodic reports.* The owner or operator shall report the information specified in paragraphs (b)(1) through (b)(9) of this section, as applicable, in the periodic report specified in § 65.5(e) of subpart A of this part.

(1) For the equipment specified in paragraphs (b)(1)(i) through (b)(1)(v) of this section, report in a summary format by equipment type the number of components for which leaks were detected, and for valves, pumps, and connectors show the percent leakers and the total number of components monitored. Also include the number of leaking components that were not repaired as required by § 65.105(a), and for valves and connectors identify the number of components that are determined by § 65.106(c)(3) to be nonrepairable.

(i) Valves in gas/vapor service and in light liquid service pursuant to § 65.106(b) and (c).

(ii) Pumps in light liquid service pursuant to § 65.107(b) and (c).

(iii) Connectors in gas/vapor service and in light liquid service pursuant to § 65.108(b) and (c).

(iv) Agitators in gas/vapor service and in light liquid service pursuant to § 65.109(b).

(v) Compressors pursuant to § 65.112.

(2) Where any delay of repair is utilized pursuant to § 65.105(d), report that delay of repair has occurred and report the number of instances of delay of repair.

(3) If applicable, report the valve subgrouping information specified in § 65.106(b)(4)(iv).

(4) For pressure relief devices in gas/vapor service pursuant to § 65.111(b)

and for compressors pursuant to § 65.112(f) that are to be operated at a leak detection instrument reading of less than 500 parts per million, report the results of all monitoring to show compliance conducted within the semiannual reporting period.

(5) Report, if applicable, the initiation of a monthly monitoring program for valves pursuant to § 65.106(b)(3)(i).

(6) Report, if applicable, the initiation of a quality improvement program for pumps pursuant to § 65.116 of this subpart.

(7) [Reserved]

(8) Where the alternative means of emissions limitation for batch processes is utilized, report the information listed in § 65.117(f).

(9) Report the information listed in paragraph (a) of this section for the Initial Compliance Status Report for process units with later compliance dates. Report any revisions to items reported in an earlier Initial Compliance Status Report if the method of compliance has changed since the last report.

§§ 65.121–65.139 [Reserved].

TABLE 1 TO SUBPART F.—BATCH PROCESSES MONITORING FREQUENCY FOR EQUIPMENT OTHER THAN CONNECTORS

Operating time (percent of year)	Equivalent continuous process monitoring frequency time in use		
	Monthly	Quarterly	Semiannually
0 to <25	Quarterly	Annually	Annually.
25 to <50	Quarterly	Semiannually	Annually.
50 to <75	Bimonthly	Three times	Semiannually.
75 to 100	Monthly	Quarterly	Semiannually.

Subpart G—Closed Vent Systems, Control Devices, and Routing to a Fuel Gas System or a Process

§ 65.140 Applicability.

The provisions of this subpart and of subpart A of this part (including the startup, shutdown, and malfunction provisions in § 65.6 of subpart A of this part) apply to closed vent systems, control devices and recovery devices where another subpart expressly references the use of this subpart.

§ 65.141 Definitions.

All terms used in this subpart shall have the meaning given them in the Act and in subpart A of this part. If a term is defined in both subpart A of this part and in other subparts that reference the use of this subpart, the term shall have the meaning given in subpart A of this part for purposes of this subpart.

§ 65.142 Standards.

(a) *Storage vessel requirements.* The owner or operator expressly referenced to this subpart from subpart C of this part shall comply with the applicable requirements of paragraphs (a)(1) through (a)(3) of this section.

(1) *Closed vent system and flare.* Owners or operators subject to § 65.42(b)(4) of subpart C of this part who route storage vessel emissions through a closed vent system to a flare shall meet the requirements in § 65.143 for closed vent systems; § 65.147 for flares; and paragraphs (a), (b), and (c) of § 65.157 for provisions regarding flare compliance determinations; and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to storage vessel emissions routed through a closed vent system to a flare.

(2) *Closed vent system and nonflare control device.* Owners or operators subject to § 65.42(b)(5) of subpart C of this part who route storage vessel emissions through a closed vent system to a nonflare control device shall meet the requirements in § 65.143 for closed vent systems and § 65.145 for nonflare control devices and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to storage vessel emissions routed through a closed vent system to a nonflare control device unless specifically required in the monitoring plan submitted under § 65.145(c).

(3) *Route to a fuel gas system or process.* Owners or operators subject to § 65.42(b)(6) of subpart C of this part who route storage vessel emissions to a fuel gas system or to a process shall meet the requirements in § 65.144 and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to storage vessel emissions being routed to a fuel gas system or to a process.

(b) *Process vent requirements.* The owner or operator expressly referenced to this subpart from subpart D of this part or 40 CFR part 60, subpart DDD, shall comply with the applicable requirements of paragraphs (b)(1) through (b)(3) of this section.

(1) *Closed vent system and flare.* Owners or operators subject to § 65.63(a)(1) of subpart D of this part or 40 CFR 60.562–1(a)(1)(i)(C) of subpart DDD who route Group 1 process vent emissions through a closed vent system to a flare shall meet the applicable requirements in § 65.143 for closed vent systems; § 65.147 for flares; and paragraphs (a), (b), and (c) of § 65.157 for provisions regarding flare compliance determinations; and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to process vent emissions routed through a closed vent system to a flare.

(2) *Closed vent system and nonflare control device.* Owners or operators subject to § 65.63(a)(2) of subpart D of this part or 40 CFR 60.562–1(a)(1)(i)(A) or (a)(1)(i)(B) of subpart DDD who route process vent emissions through a closed vent system to a nonflare control device shall meet the applicable requirements in § 65.143 for closed vent systems; the requirements applicable to the control devices being used in §§ 65.148 through 65.152 or § 65.155; the applicable general monitoring requirements of § 65.156; the applicable performance test requirements and procedures of §§ 65.157 and 65.158; and the monitoring, recordkeeping, and reporting requirements referenced therein. Owners or operators subject to the halogen reduction device requirements of § 65.63(b) of subpart D must also comply with § 65.154 and the monitoring, recordkeeping, and reporting requirements referenced therein. The requirements of §§ 65.144 through 65.146 do not apply to process vents.

(3) *Final recovery devices.* Owners or operators subject to § 65.63(a)(3) of subpart D who use a final recovery device to maintain the TRE index value of a Group 2 process vent above 1.0 shall meet the requirements in § 65.153 and the monitoring, recordkeeping, and reporting requirements referenced therein applicable to the recovery

device being used and the applicable monitoring requirements in § 65.156 and the recordkeeping and reporting requirements referenced therein, except for § 65.156(c)(2)(ii). No other provisions of this subpart apply to Group 2A process vents.

(c) *Transfer rack requirements.* The owner or operator expressly referenced to this subpart from subpart E of this part shall comply with the applicable requirements of paragraphs (c)(1) through (c)(4) of this section.

(1) *Closed vent system and flare.* Owners or operators subject to § 65.83(a)(2) of subpart E of this part who route transfer rack emissions through a closed vent system to a flare shall meet the applicable requirements in § 65.143 for closed vent systems; § 65.147 for flares; and paragraphs (a), (b), and (c) of § 65.157 for provisions regarding flare compliance determinations; and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to transfer rack emissions routed through a closed vent system to a flare.

(2) *Closed vent system and nonflare control device for low-throughput transfer racks.* Owners or operators of low-throughput transfer racks subject to § 65.83(a)(1) of subpart E of this part who route low-throughput transfer rack emissions through a closed vent system to a nonflare control device shall meet the applicable requirements in § 65.143 for closed vent systems and § 65.145 for nonflare control devices and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to low-throughput transfer rack emissions routed through a closed vent system to a nonflare control device unless specifically required in the monitoring plan submitted under § 65.145(c).

(3) *Closed vent system and nonflare control devices for high-throughput transfer racks.* Owners or operators of high-throughput transfer racks subject to § 65.83(a)(1) of subpart E of this part who route high-throughput transfer rack emissions through a closed vent system to a nonflare control device shall meet the applicable requirements in § 65.143 for closed vent systems, the requirements applicable to the control device being used in §§ 65.148 through 65.152 or § 65.155; the applicable general monitoring of § 65.156; and the applicable performance test requirements and procedures of §§ 65.157 and 65.158; and the monitoring, recordkeeping, and reporting requirements referenced therein. Owners or operators subject to 65.83(b) of subpart E must also comply with § 65.154 and the monitoring, recordkeeping, and reporting requirements referenced therein. The requirements of §§ 65.144 through 65.146 do not apply to high-throughput transfer rack emissions routed through a closed vent system to a nonflare control device. No other provisions of this subpart apply to transfer rack emissions routed through a closed vent system to a nonflare control device.

(4) *Route to a fuel gas system or to a process.* Owners or operators subject to § 65.83(a)(4) of subpart E of this part who route transfer rack emissions to a fuel gas system or to a process shall meet the applicable requirements in § 65.144 and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to transfer rack emissions being routed to a fuel gas system or to a process.

(d) *Equipment leak requirements.* The owner or operator expressly referenced to this subpart from subpart F of this part shall comply with the applicable requirements of paragraphs (d)(1) through (d)(3) of this section.

(1) *Closed vent system and flare.* Owners or operators subject to § 65.115(b) of subpart F of this part who route equipment leak emissions through a closed vent system to a flare shall meet the requirements in § 65.143 for closed vent systems; § 65.147 for flares; and paragraphs (a), (b) and (c) of § 65.157 for provisions regarding flare compliance determinations; and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to equipment leak emissions routed through a closed vent system to a flare.

(2) *Closed vent system and nonflare control device.* Owners or operators subject to § 65.115(b) of subpart F of this part who route equipment leak emissions through a closed vent system to a nonflare control device shall meet the requirements in § 65.143 for closed vent systems and § 65.146 for nonflare control devices used for equipment leak emissions and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to equipment leak emissions routed through a closed vent system to a nonflare control device.

(3) *Route to a fuel gas system or to a process.* Owners or operators subject to § 65.115(b) of subpart F of this part who route equipment leak emissions to a fuel gas system or to a process shall meet the requirements in § 65.144 and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to equipment leak emissions being routed to a fuel gas system or to a process.

(e) *Combined emissions.* When emissions of different kinds (for example, emissions from process vents, transfer racks, and/or storage vessels) are combined, the owner or operator shall comply with the requirements of either paragraph (e)(1) or paragraph (e)(2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of emissions in the stream (for example, the requirements of § 65.142(b) for process vents, and the requirements of § 65.142(c) for transfer racks); or

(2) Comply with the first set of requirements identified in paragraphs (e)(2)(i) through (e)(2)(iii) of this section which applies to any individual emission stream that is included in the combined stream. Compliance with the first applicable set of requirements identified in paragraphs (e)(2)(i) through (e)(2)(iii) of this section constitutes compliance with all other requirements in paragraphs (e)(2)(i) through (e)(2)(iii) of this section applicable to other types of emissions in the combined stream.

(i) The requirements of § 65.142(b) for Group 1 process vents, including applicable monitoring, recordkeeping, and reporting;

(ii) The requirements of § 65.142(c) for high-throughput transfer racks, including applicable monitoring, recordkeeping, and reporting;

(iii) The requirements of § 65.142(a) for control of emissions from storage vessels or low-throughput transfer racks, including monitoring, recordkeeping, and reporting.

§ 65.143 Closed vent systems.

(a) *Closed vent system equipment and operating requirements.* The provisions of paragraph (a) of this section apply to closed vent systems collecting regulated material from a storage vessel, process vent, transfer rack, or equipment leaks.

(1) *Collection of emissions.* Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point and to route the collected vapors to a control device.

(2) *Period of operation.* Closed vent systems used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(3) *Bypass monitoring.* Except for pressure relief devices needed for safety purposes, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines, the owner or operator

shall comply with the provisions of either paragraph (a)(3)(i) or (a)(3)(ii) of this section for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

(i) 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 § 65.163(a)(1)(i). The flow indicator shall be installed at the entrance to any bypass line.

(ii) Secure the bypass line valve in the closed 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 the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. Records shall be generated as specified in § 65.163(a)(1)(ii).

(4) *Loading arms at transfer racks.* Each closed vent system collecting regulated material from a transfer rack shall be designed and operated so that regulated material vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere.

(5) *Pressure relief devices in a transfer rack.* The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the transfer rack's closed vent system shall open to the atmosphere during loading. Pressure relief devices needed for safety purposes are not subject to paragraph (a)(5) of this section.

(b) *Closed vent system inspection requirements.* The provisions of paragraph (b) of this section apply to closed vent systems collecting regulated material from a storage vessel, transfer rack or equipment leaks. Inspection records shall be generated as specified in § 65.163(a)(3) and (a)(4).

(1) Except for closed vent systems operated and maintained under negative pressure and as provided in paragraphs (b)(2) and (b)(3) of this section, each closed vent system shall be inspected as specified in paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) If the closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (b)(1)(i)(A) and (b)(1)(i)(B) of this section.

(A) Conduct an initial inspection according to the procedures in paragraph (c) of this section; and

(B) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(ii) If the closed vent system is constructed of ductwork, the owner or operator shall conduct an initial and annual inspection according to the procedures in paragraph (c) of this section.

(2) Any parts of the closed vent system that are designated as described in § 65.163(a)(2) as unsafe to inspect are exempt from the inspection requirements of paragraph (b)(1) of this section if the conditions of paragraphs (b)(2)(i) and (b)(2)(ii) of this section are met.

(i) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (b)(1) of this section; and

(ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.

(3) Any parts of the closed vent system that are designated, as described in § 65.163(a)(2), as difficult to inspect are exempt from the inspection requirements of paragraph (b)(1) of this section if the provisions of paragraphs (b)(3)(i) and (b)(3)(ii) of this section apply.

(i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and

(ii) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.

(c) *Closed vent system inspection procedures.* The provisions of paragraph (c) of this section apply to closed vent systems collecting regulated material from a storage vessel, transfer rack, or equipment leaks.

(1) Each closed vent system subject to paragraph (c) of this section shall be inspected according to the procedures specified in paragraphs (c)(1)(i) through (c)(1)(vii) of this section.

(i) Inspections shall be conducted in accordance with Method 21 of 40 CFR part 60, appendix A, except as specified in this section.

(ii) Except as provided in paragraph (c)(1)(iii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the representative composition of the process fluid not each individual volatile organic compounds (VOC) in the stream. For process streams that contain nitrogen, air, or other inerts that are not organic hazardous air pollutants (HAP's) or VOC, the representative stream response factor shall be determined on an inert-free basis. The response factor may be determined at any concentration for which the monitoring for leaks will be conducted.

(iii) If no instrument is available at the plant site that will meet the performance criteria specified in paragraph (c)(1)(ii) of this section, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid calculated on an inert-free basis as described in paragraph (c)(1)(ii) of this section.

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

(v) Calibration gases shall be as specified in paragraphs (c)(1)(v)(A) through (c)(1)(v)(C) of this section.

(A) Zero air (less than 10 parts per million hydrocarbon in air); and

(B) Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (c)(1)(ii) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(C) If the detection instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,500 parts per million.

(vi) An owner or operator may elect to adjust or not adjust instrument readings for background. If an owner or operator elects not to adjust readings for background, all such instrument readings shall be compared directly to 500 parts per million to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall measure background concentration using the procedures in this section. The owner or operator shall subtract the background reading from the maximum concentration indicated by the instrument.

(vii) If the owner or operator elects to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining whether there is a leak.

(2) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR part 60, appendix A.

(3) Except as provided in paragraph (c)(4) of this section, inspections shall be performed when the equipment is in regulated material service or in use with any other detectable gas or vapor.

(4) Inspections of the closed vent system collecting regulated material from a transfer rack shall be performed only while a tank truck or railcar is being loaded or is otherwise pressurized to normal operating conditions with regulated material or any other detectable gas or vapor.

(d) *Closed vent system leak repair provisions.* The provisions of paragraph (d) of this section apply to closed vent systems collecting regulated material from a storage vessel, transfer rack, or equipment leak.

(1) If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by paragraph (b)(1)(i)(B) of this section, the owner or operator shall follow the procedure specified in either paragraph (d)(1)(i) or (d)(1)(ii) of this section.

(i) The owner or operator shall eliminate the indications of the leak.

(ii) The owner or operator shall monitor the equipment according to the procedures in paragraph (c) of this section.

(2) Leaks as indicated by an instrument reading greater than 500 parts per million by volume above background shall be repaired as soon as practical except as provided in paragraph (d)(3) of this section. Records shall be generated as specified in § 65.163(a)(3) when a leak is detected.

(i) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(ii) Except as provided in paragraph (d)(3) of this section, repairs shall be completed no later than 15 calendar days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.

(3) Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a closed vent system shutdown, as defined in § 65.2 of subpart A of this part, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown.

§ 65.144 Fuel gas systems and processes to which storage vessel, transfer rack, or equipment leak regulated material emissions are routed.

(a) *Equipment and operating requirements for fuel gas systems and processes.* (1) Except as provided in § 65.3(b)(1) of subpart A, the fuel gas system or process shall be operating at all times when regulated material emissions are routed to it.

(2) The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure relief device in the transfer rack's system returning vapors to a fuel gas system or process shall open to the atmosphere during loading. Pressure relief devices needed for safety purposes are not subject to paragraph (a)(2) of this section.

(3) Each process piping system collecting regulated material from a transfer rack shall be designed and operated so that regulated material vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere.

(b) *Fuel gas system and process compliance determination.* (1) If emissions are routed to a fuel gas system, there is no requirement to conduct a performance test or design evaluation.

(2) For storage vessels and transfer racks and if emissions are routed to a process, the regulated material in the emissions shall predominantly meet one of or a combination of the conditions specified in paragraphs (b)(2)(i) through (b)(2)(iv) of this section. The owner or operator of storage vessels subject to paragraph (b)(2) of this section shall comply with the compliance demonstration requirements in paragraph (b)(3) of this section.

(i) Recycled and/or consumed in the same manner as a material that fulfills the same function in that process;

(ii) Transformed by chemical reaction into materials that are not regulated materials;

(iii) Incorporated into a product; and/or

(iv) Recovered.

(3) To demonstrate compliance with paragraph (b)(2) of this section for a storage vessel, the owner or operator shall prepare a design evaluation (or engineering assessment) that demonstrates the extent to which one or more of the conditions specified in paragraphs (b)(2)(i) through (b)(2)(iv) of this section are being met. The owner or operator shall submit the design evaluation as specified in § 65.165(a)(1).

(c) *Statement of connection.* For storage vessels and transfer racks, the owner or operator shall submit the reports specified in § 65.165(a)(2) and/or (a)(3), as appropriate.

§ 65.145 Nonflare control devices used to control emissions from storage vessels or low-throughput transfer racks.

(a) *Nonflare control device equipment and operating requirements.* The owner or operator shall operate and maintain the nonflare control device so that the monitored parameters defined as required in paragraph (c) of this section remain within the ranges specified in the Initial Compliance Status Report whenever emissions of regulated material are routed to the control device, except during periods of startup, shutdown, and malfunction.

(b) *Nonflare control device design evaluation or performance test requirements.* When using a control device other than a flare, the owner or operator shall comply with the requirements in paragraph (b)(1)(i), (b)(1)(ii), or (b)(1)(iii) of this section except as provided in paragraph (b)(2) of this section.

(1) Unless a design evaluation or performance test as required in the referencing subpart was previously conducted and submitted for the storage vessel or low-throughput transfer rack, the owner or operator shall either prepare and submit with the Initial Compliance Status Report, as specified in § 65.165(b), a design evaluation that includes the information specified in paragraph (b)(1)(i) of this section, or the results of the performance test as described in paragraph (b)(1)(ii) or (b)(1)(iii) of this section.

(i) *Design evaluation.* The design evaluation shall include documentation demonstrating that the control device being used achieves the required control efficiency during the reasonably expected maximum storage vessel filling or transfer loading rate. This documentation is to include a description of the gas stream that enters the control device, including flow and regulated material content, and additionally for storage vessels, under varying liquid level conditions, and the information specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(E) of this section, as applicable. This documentation shall be submitted with the Initial Compliance Status Report as specified in § 65.165(b).

(A) The efficiency determination is to include consideration of all vapors, gases, and liquids, other than fuels, received by the control device.

(B) If an enclosed combustion device with a minimum residence time of 0.5

seconds and a minimum temperature of 760 °C is used to meet the emission reduction requirement specified in § 65.42(b)(5) or (c)(2) of subpart C of this part for storage vessels or § 65.83(a)(1) of subpart E of this part for transfer racks, documentation that those conditions exist is sufficient to meet the requirements of paragraph (b)(1)(i) of this section.

(C) Except as provided in paragraph (b)(1)(i)(B) of this section for enclosed combustion devices, the design evaluation shall include the estimated autoignition temperature of the stream being combusted, the flow rate of the stream, the combustion temperature, and the residence time at the combustion temperature.

(D) For carbon adsorbers, the design evaluation shall include the estimated affinity of the regulated pollutant vapors for carbon, the amount of carbon in each bed, the number of beds, the humidity, the temperature, the flow rate of the inlet stream and, if applicable, the desorption schedule, the regeneration stream pressure or temperature, and the flow rate of the regeneration stream. For vacuum desorption, pressure drop shall be included.

(E) For condensers, the design evaluation shall include the final temperature of the stream vapors, the type of condenser, and the design flow rate of the emission stream.

(ii) *Performance test.* A performance test is acceptable to demonstrate compliance with § 65.42(b)(5) of subpart C of this part for storage vessels and § 65.83(a)(1) of subpart E of this part for transfer racks. The owner or operator is not required to prepare a design evaluation for the control device as described in paragraph (b)(1)(i) of this section if a performance test will be performed that meets the criteria specified in paragraphs (b)(1)(ii)(A) and (b)(1)(ii)(B) of this section.

(A) The performance test demonstrates that the control device achieves greater than or equal to the required control efficiency specified in § 65.42(b)(5) of subpart C of this part for storage vessels or § 65.83(a)(1) of subpart E of this part for transfer racks; and

(B) The performance test meets the applicable performance test requirements of §§ 65.157 and 65.158, and the results are submitted as part of the Initial Compliance Status Report as specified in § 65.165(b).

(iii) If the control device used to comply with § 65.42(b)(5) of subpart C of this part for storage vessels or with § 65.83(a)(1) of subpart E of this part for low-throughput transfer racks, as applicable, is also used to comply with § 65.63(a)(2) of subpart D of this part for process vents or § 65.83(a)(1) of subpart E of this part for transfer racks (for non low-throughput transfer racks), a performance test required by § 65.148(b), § 65.149(b), § 65.150(b), § 65.151(b), § 65.152(b), or § 65.155(b) is acceptable to demonstrate compliance with § 65.42(b)(5) of subpart C of this part for storage vessels or § 65.83(a)(1) of subpart E of this part for low-throughput transfer racks, as applicable. The owner or operator is not required to prepare a design evaluation for the control device as described in paragraph (b)(1)(i) of this section, if a performance test will be performed which meets the criteria specified in paragraphs (b)(1)(iii)(A) and (b)(1)(iii)(B) of this section.

(A) The performance test demonstrates that the control device achieves greater than or equal to the required control efficiency specified in § 65.42(b)(5) of subpart C of this part for storage vessels or § 65.83(a)(1) of subpart E of this part for transfer racks; and

(B) The performance test is submitted as part of the Initial Compliance Status Report as specified in § 65.165(b).

(2) A design evaluation or performance test is not required if the owner or operator uses a combustion device meeting the criteria in paragraph (b)(2)(i), (b)(2)(ii), (b)(2)(iii), or (b)(2)(iv) of this section.

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

(ii) A boiler or process heater burning hazardous waste for which the owner or operator meets the requirements specified in paragraph (b)(2)(ii)(A) or (b)(2)(ii)(B) of this section.

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

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

(iii) A hazardous waste incinerator for which the owner or operator meets the requirements specified in paragraph (b)(2)(iii)(A) or (b)(2)(iii)(B) of this section.

(A) The incinerator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O; or

(B) The incinerator has certified compliance with the interim status requirements of 40 CFR part 265, subpart O.

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

(c) *Nonflare control device monitoring requirements.* (1) Unless previously established under an applicable standard prior to the implementation date of this part as specified in § 65.1(f) of subpart A of this part, the owner or operator shall submit with the Initial Compliance Status Report a monitoring plan containing the information specified in § 65.165(b) to identify the parameters that will be monitored to assure proper operation of the control device.

(2) The owner or operator shall monitor the parameters specified in the Initial Compliance Status Report or in the operating permit. Records shall be generated as specified in § 65.163(b)(1).

§ 65.146 Nonflare control devices used for equipment leaks only.

(a) *Equipment and operating requirements.* (1) Owners or operators using a nonflare control device to meet the applicable requirements in § 65.115(b) of subpart F of this part shall meet the requirements of this section.

(2) Control devices used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Performance test requirements.* A performance test is not required for any control device used only to control emissions from equipment leaks.

(c) *Monitoring requirements.* Owners or operators of control devices that are used to comply only with the provisions of § 65.115(b) of subpart F of this part shall monitor these control devices to ensure that they are operated and maintained in conformance with their design. The owner or operator shall maintain the records as specified in § 65.163(d).

§ 65.147 Flares.

(a) *Flare equipment and operating requirements.* Flares subject to this subpart shall meet the performance requirements of paragraphs (a)(1) through (a)(7) of this section.

(1) Flares shall be operated at all times when emissions are vented to them.

(2) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (b)(3)(i) of this section except for periods not to exceed a total of 5 minutes during any two consecutive hours.

(3) Flares shall be operated with a flare flame or at least one pilot flame present at all times, as determined by the methods specified in paragraph (c) of this section.

(4) Flares shall be used only when the net heating value of the gas being combusted is 11.2 megajoules per standard cubic meter (300 British thermal units per standard cubic foot) or greater if the flare is steam-assisted or air-assisted, or when the net heating value of the gas being combusted is 7.45 megajoules per standard cubic meter (200 British thermal units per standard cubic foot) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (b)(3)(ii) of this section.

(5) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(6) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity as determined by the methods specified in paragraph (b)(3)(iii) of this section, of less than 18.3 meters per second (60 feet per sec) except as provided in paragraphs (a)(6)(i) and (a)(6)(ii) of this section, as applicable.

(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity as determined by the methods specified in paragraph (b)(3)(iii) of this section equal to or less than 122 meters per second (400 feet per second) if the net heating value of the gas being combusted is greater than 37.3 megajoules per standard cubic meter (1,000 British thermal units per standard cubic foot).

(ii) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (b)(3)(iii) of this section, of less than the velocity, V_{max} and less than 122 meters per second (400 feet per sec), where the maximum permitted velocity, V_{max}, is determined by the following equation:

$$\text{Log10}\,(V_{max}) = (H_T + 28.8)/31.7 \qquad (147\text{–}1)$$

Where:

V_{max}=Maximum permitted velocity, meters per second

28.8=Constant

31.7=Constant

H_T=The net heating value as determined in paragraph (b)(3)(ii) of this section.

(7) Air-assisted flares shall be designed for and operated with an exit velocity as determined by the methods specified in paragraph (b)(3)(iii) of this section less than the velocity, V_{max}, where the maximum permitted velocity, V_{max}, is determined by the following equation.

$$V_{max} = 8.706 + 0.7084\,(H_T) \qquad (147\text{–}2)$$

Where:

V_{max}=Maximum permitted velocity, meters per second

8.706=Constant

0.7084=Constant

H_T=The net heating value as determined in paragraph (b)(3)(ii) of this section.

(b) *Flare compliance determination.* (1) Unless an initial flare compliance determination of the flare was previously conducted and submitted under the referencing subpart, the owner or operator shall conduct an initial flare compliance determination of any flare used to comply with the provisions of this subpart. Flare compliance determination records shall be kept as specified in § 65.159(a) and (b) and a flare compliance determination report shall be submitted as specified in § 65.164. An owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet regulated material or TOC concentration when a flare is used.

(2) Unless already permitted by the applicable title V permit, if an owner or operator elects to use a flare to replace an existing control device at a later date, the owner or operator shall notify the Administrator, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 65.167(a). Upon implementing the change, a flare compliance determination shall be performed using the methods specified in paragraph (b)(3) of this section within 180 days. The compliance determination report shall be submitted to the Administrator within 60 days of completing the determination as provided in § 65.164(b)(2). If an owner or operator elects to use a flare to replace an existing final recovery device that is used on a Group 2A process vent, the owner or operator shall comply with the applicable provisions of §§ 65.63(e) and 65.67(b) of subpart D of this part and submit the notification specified in § 65.167(a).

(3) Flare compliance determinations shall meet the requirements specified in paragraphs (b)(3)(i) through (b)(3)(iv) of this section.

(i) Method 22 of appendix A of part 60 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours, except for transfer racks as provided in paragraph (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) For transfer racks, if the loading cycle is less than 2 hours, then the observation period for that run shall be for the entire loading cycle.

(B) For transfer racks, if additional loading cycles are initiated within the 2-hour period, then visible emissions observations shall be conducted for the additional cycles.

(ii) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K_1 \sum_{j=1}^{n} D_j H_j \qquad (147\text{-}3)$$

where:

H_T=Net heating value of the sample, megajoules per standard cubic meter; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 millimeters of mercury (30 inches of mercury), but the standard temperature for determining the volume corresponding to 1 mole is 20 °C;

K_1=1.740×10^{-7} (parts per million by volume)$^{-1}$ (gram-mole per standard cubic meter) (megajoules per kilocalories), where the standard temperature for gram mole per standard cubic meter is 20 °C;

D_j=Concentration of sample component j, in parts per million by volume on a wet basis, as measured for organics by Method 18 of part 60, appendix A and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946–77; and

H_j=Net heat of combustion of sample component j, kilocalories per gram-mole at 25 °C and 760 millimeters of mercury (30 inches of mercury). The heats of combustion of stream components may be determined using ASTM D2382–76 if published values are not available or cannot be calculated.

(iii) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Methods 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A as appropriate; by the unobstructed (free) cross-sectional area of the flare tip.

(iv) Flare flame or pilot monitors, as applicable, shall be operated during any flare compliance determination.

(c) *Flare monitoring requirements.* Where a flare is used, the following monitoring equipment is required: a device (including but not limited to a thermocouple, ultraviolet beam sensor, or infrared sensor) capable of continuously detecting that at least one pilot flame or the flare flame is present. Flame monitoring and compliance records shall be kept as specified in § 65.159 (c) and (d).

§ 65.148 Incinerators.

(a) *Incinerator equipment and operating requirements.* (1) Owners or operators using incinerators to meet the 98 weight-percent emission reduction or 20 parts per million by volume outlet concentration requirement as specified in § 65.63(a)(2) of subpart D of this part or 40 CFR 60.562–1(a)(1)(i)(A) of subpart DDD for process vents, or § 65.83(a)(1) of subpart E of this part for transfer racks, as applicable, shall meet the requirements of this section.

(2) Incinerators used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Incinerator performance test requirements.* (1) Unless an initial performance test was previously conducted and submitted under the referencing subpart and except as specified in § 65.157(b) and paragraph (b)(2) of this section, the owner or operator shall conduct an initial performance test of any incinerator used to comply with the provisions of this subpart according to the procedures in §§ 65.157 and 65.158. Performance test records shall be kept as specified in § 65.160(a) and (b) and a performance test report shall be submitted as specified in § 65.164. As provided in § 65.145(b)(1), a performance test may be used as an alternative to the design evaluation for storage vessels and low-throughput transfer rack controls. As provided in § 65.146(b), no performance test is required for equipment leaks.

(2) An owner or operator is not required to conduct a performance test for 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.

(3) Unless already permitted by the applicable title V permit, if an owner or operator elects to use an incinerator to replace an existing control device at a later date, the owner or operator shall notify the Administrator, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 65.167(a) before implementing the change. Upon implementing the change, an incinerator performance test shall be performed, using the methods specified in § 65.157 and within 180 days if required by paragraph (b)(1) of this section. The performance test report shall be submitted to the Administrator within 60 days of completing the determination as provided in § 65.164(b)(2). If an owner or operator elects to use an incinerator to replace an existing recovery device that is used on a Group 2A process vent, the owner or operator shall comply with the applicable provisions of §§ 65.63(e) and 65.67(b) of subpart D of this part and submit the notification specified in § 65.167(a).

(c) *Incinerator monitoring requirements.* (1) Where an incinerator is used, a temperature monitoring device capable of providing a continuous record that meets the provisions specified in paragraph (c)(1)(i) or (c)(1)(ii) of this section is required. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box 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.

(2) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the incinerator. In order to establish the range, the information required in § 65.165(c) shall be submitted in the Initial Compliance Status Report or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications of § 65.157(b)(1) or upon existing ranges or limits established under a referencing subpart.

§ 65.149 Boilers and process heaters.

(a) *Boiler and process heater equipment and operating requirements.* (1) Owners or operators using boilers and process heaters to meet the 98 weight-percent emission reduction or 20 parts per million by volume outlet concentration requirement as specified in § 65.63(a)(2) of subpart D of this part or 40 CFR 60.562–1(a)(1)(i)(A) of subpart DDD for process vents, or § 65.83(a)(1) of subpart E of this part for transfer racks, as applicable, shall meet the requirements of this section.

(2) The vent stream shall be introduced into the flame zone of the boiler or process heater.

(3) Boilers and process heaters used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Boiler and process heater performance test requirements.* (1) Unless an initial performance test was previously conducted and submitted under the referencing subpart, and except as specified in § 65.157(b) and paragraph (b)(2) of this section, the owner or operator shall conduct an initial performance test of any boiler or process heater used to comply with the provisions of this subpart according to the procedures in §§ 65.157 and 65.158. Performance test records shall be kept as specified in § 65.160(a) and (b) and a performance test report shall be submitted as specified in § 65.164. As provided in § 65.145(b)(1), a performance test may be used as an alternative to the design evaluation for storage vessels and low-throughput transfer rack controls. As provided in § 65.146(b), no performance test is required to demonstrate compliance for equipment leaks.

(2) An owner or operator is not required to conduct a performance test when any of the control devices specified in paragraphs (b)(2)(i) through (b)(2)(iii) are used.

(i) A boiler or process heater with a design heat input capacity of 44 megawatts (150 million British thermal units per hour) 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 meets the requirements specified in paragraph (b)(2)(iii)(A) or (b)(2)(iii)(B) of this section.

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

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

(3) Unless already permitted by the applicable title V permit, if an owner or operator elects to use a boiler or process heater to replace an existing control device at a later date, the owner or operator shall notify the Administrator, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 65.167(a) before implementing the change. Upon implementing the change, a boiler or process heater performance test shall be performed using the methods specified in §§ 65.157 and 65.158 within 180 days if required by paragraph (b)(1) of this section. The performance test report shall be submitted to the Administrator

within 60 days of completing the determination as provided in § 65.164(b)(2). If an owner or operator elects to use a boiler or process heater to replace an existing recovery device that is used on a Group 2A process vent, the owner or operator shall comply with the applicable provisions of § 65.63(e) and § 65.67(b) of subpart D of this part and submit the notification specified in § 65.167(a).

(c) *Boiler and process heater monitoring requirements.* (1) Where a boiler or process heater of less than 44 megawatts (150 million British thermal units per hour) design heat input capacity is used and the regulated vent stream is not introduced as or with the primary fuel, a temperature monitoring device in the fire box capable of providing a continuous record is required. Any boiler or process heater in which all vent streams are introduced with primary fuel or are used as the primary fuel is exempt from monitoring. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(2) Where monitoring is required, the owner or operator shall establish a range for monitored parameters that indicates proper operation of the boiler or process heater. In order to establish the range, the information required in § 65.165(c) shall be submitted in the Initial Compliance Status Report or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications of § 65.157(b)(1) or upon existing ranges or limits established under a referencing subpart.

§ 65.150 Absorbers used as control devices.

(a) *Absorber equipment and operating requirements.* (1) Owners or operators using absorbers to meet the 98 weight-percent emission reduction or 20 parts per million by volume outlet concentration requirements as specified in § 65.63(a)(2) of subpart D of this part or 40 CFR 60.562–1(a)(1)(i)(A) of subpart DDD for process vents, or § 65.83(a)(1) of subpart E of this part for transfer racks, as applicable, shall meet the requirements of this section.

(2) Absorbers used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Absorber performance test requirements.* (1) Unless an initial performance test was previously conducted and submitted under the referencing subpart and except as specified in § 65.157(b), the owner or operator shall conduct an initial performance test of any absorber used as a recapture device to comply with the provisions of this subpart according to the procedures in §§ 65.157 and 65.158. Performance test records shall be kept as specified in § 65.160 (a) and (b) and a performance test report shall be submitted as specified in § 65.164. As provided in § 65.145(b)(1), a performance test may be used as an alternative to the design evaluation for storage vessels and low-throughput transfer rack controls. As provided in § 65.146(b), no performance test is required to demonstrate compliance for equipment leaks.

(2) Unless already permitted by the applicable title V permit, if an owner or operator elects to use an absorber to replace an existing recovery or control device at a later date, the owner or operator shall notify the Administrator, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 65.167(a) before implementing the change. Upon implementing the change, the provisions specified in paragraph (b)(2)(i) or (b)(2)(ii) as applicable shall be followed.

(i) *Replace final recovery device.* If an owner or operator elects to replace the final recovery device on a process vent with an absorber used as a control device, the owner or operator shall comply with the applicable provisions of §§ 65.63(e) and 65.67(b) of subpart D of this part.

(ii) *Replace control device.* If an owner or operator elects to replace a control device on a Group 1 process vent or a transfer rack with an absorber used as a control device, the owner or operator shall perform a performance test using the methods specified in §§ 65.157 and 65.158 within 180 days. The performance test report shall be submitted to the Administrator within 60 days of completing the test as provided in § 65.164(b)(2).

(c) *Absorber monitoring requirements.* (1) Where an absorber is used as a control device, either an organic monitoring device capable of providing a continuous record or a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each capable of providing a continuous record, shall be used. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(2) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the absorber. In order to establish the range, the information required in § 65.165(c) shall be submitted in the Initial Compliance Status Report or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications of § 65.157(b)(1) or upon existing ranges or limits established under a referencing subpart.

§ 65.151 Condensers used as control devices.

(a) *Condenser equipment and operating requirements.* (1) Owners or operators using condensers to meet the 98 weight-percent emission reduction or 20 parts per million by volume outlet concentration requirements as specified in § 65.63(a)(2) of subpart D of this part or 40 CFR 60.562–1(a)(1)(i)(A) of subpart DDD for process vents, or § 65.83(a)(1) of subpart E of this part for transfer racks, as applicable, shall meet the requirements of this section.

(2) Condensers used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Condenser performance test requirements.* (1) Unless an initial performance test was previously conducted and submitted under the referencing subpart and except as specified in § 65.157(b), the owner or operator shall conduct an initial performance test of any condenser used as a recapture device to comply with the provisions of this subpart according to the procedures in §§ 65.157 and 65.158. Performance test records shall be kept as specified in § 65.160 (a) and (b) and a performance test report shall be submitted as specified in § 65.164. As provided in § 65.145(b)(1), a performance test may be used as an alternative to the design evaluation for storage vessels and low-throughput transfer rack controls. As provided in § 65.146(b), no performance test is required to demonstrate compliance for equipment leaks.

(2) Unless already permitted by the applicable title V permit, if an owner or operator elects to use a condenser to replace an existing recovery or control device at a later date, the owner or operator shall notify the Administrator, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 65.167(a) before implementing the change. Upon implementing the change, the provisions specified in paragraph (b)(2)(i) or (b)(2)(ii) of this section, as applicable, shall be followed.

(i) *Replace final recovery device.* If an owner or operator elects to replace the final recovery device on a process vent with a condenser used as a control device, the owner or operator shall comply with the applicable provisions of §§ 65.63(e) and 65.67(b) of subpart D of this part.

(ii) *Replace control device.* If an owner or operator elects to replace a control device on a Group 1 process vent or a transfer rack with a condenser used as a control device, the owner or operator shall perform a performance test using the methods specified in §§ 65.157 and 65.158 within 180 days. The performance test report shall be submitted to the Administrator within 60 days of completing the test as provided in § 65.164(b)(2).

(c) *Condenser monitoring requirements.* (1) Where a condenser is used as a control device, an organic monitoring device capable of providing a continuous record or a condenser exit (product side) temperature monitoring device capable of providing a continuous record shall be used. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(2) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the condenser. In order to establish the range, the information required in § 65.165(c) shall be submitted in the Initial Compliance Status Report or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications in § 65.157(b)(1) or upon existing ranges or limits established under a referencing subpart.

§ 65.152 Carbon adsorbers used as control devices.

(a) *Carbon adsorber equipment and operating requirements.* (1) Owners or operators using carbon adsorbers to meet the 98 weight-percent emission reduction or 20 parts per million by volume outlet concentration requirements as specified in § 65.63(a)(2) of subpart D of this part or 40 CFR 60.562–1(a)(1)(i)(A) of subpart DDD for process vents, or § 65.83(a)(1) of subpart E of this part for transfer racks, as applicable, shall meet the requirements of this section.

(2) Carbon adsorbers used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Carbon adsorber performance test requirements.* (1) Unless an initial performance test was previously conducted and submitted under the referencing subpart and except as specified in § 65.157(b), the owner or operator shall conduct an initial performance test of any carbon absorber used as a control device to comply with the provisions of this subpart according to the procedures in §§ 65.157 and 65.158. Performance test records shall be kept as specified in § 65.160 (a) and (b) and a performance test report shall be submitted as specified in § 65.164. As provided in § 65.145(b)(1), a performance test may be used as an alternative to the design evaluation for storage vessels and low-throughput transfer rack controls. As provided in § 65.146(b), no performance test is required to demonstrate compliance for equipment leaks.

(2) Unless already permitted by the applicable title V permit, if an owner or operator elects to use a carbon adsorber to replace an existing recovery or control device at a later date, the owner or operator shall notify the Administrator either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 65.167(a) before implementing the change. Upon implementing the change, the provisions specified in paragraph (b)(2)(i) or (b)(2)(ii) as applicable shall be followed.

(i) *Replace final recovery device.* If an owner or operator elects to replace the final recovery device on a process vent with a carbon adsorber used as a control device, the owner or operator shall comply with the applicable provisions of §§ 65.63(e) and 65.67(b) of subpart D of this part.

(ii) *Replace control device.* If an owner or operator elects to replace a control device on a Group 1 process vent or transfer rack with a carbon adsorber used as a recapture device, the owner or operator shall perform a performance test using the methods specified in §§ 65.157 and 65.158 within 180 days. The performance test report shall be submitted to the Administrator within 60 days of completing the test as provided in § 65.164(b)(2).

(c) *Carbon adsorber monitoring requirements.* (1) Where a carbon adsorber is used as a control device, an organic monitoring device capable of providing a continuous record or an integrating regeneration stream flow monitoring device having an accuracy of ±10 percent or better capable of recording the total regeneration stream mass or volumetric flow 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 shall be used. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(2) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the carbon adsorber. Where the regeneration stream flow and carbon-bed temperature are monitored, the range shall be in terms of the total regeneration stream flow per regeneration cycle and the temperature of the carbon-bed determined within 15 minutes of the completion of the regeneration cooling cycle. In order to establish the range, the information required in § 65.165(c) shall be submitted in the Initial Compliance Status Report or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications in § 65.157(b)(1) or upon existing ranges or limits established under a referencing subpart.

§ 65.153 Absorbers, condensers, carbon adsorbers and other recovery devices used as final recovery devices.

(a) *Final recovery device equipment and operating requirements.* (1) Owners or operators using a recovery device to meet the requirement to operate and maintain a TRE above 1.0 as specified in § 65.63(a)(3) of subpart D of this part for process vents shall meet the requirements of this section.

(2) Recovery devices used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Recovery device performance test requirements.* (1) There are no performance test requirements for recovery devices. Records of TRE index value determination shall be generated as specified in § 65.160(c).

(2) *Replace a final recovery device or control device.* Unless already permitted by the applicable title V permit, if an owner or operator elects to use a recovery device to replace an existing final recovery or control device at a later date, the owner or operator shall notify the Administrator, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in § 65.167(a) before implementing the change. Upon implementing the change, the owner or operator shall comply with the applicable provisions of §§ 65.63(e) and 65.67(b) of subpart D of this part.

(c) *Recovery device monitoring requirements.* (1) Where an absorber is

the final recovery device in the recovery system and the TRE index value is between 1.0 and 4.0, either an organic monitoring device capable of providing a continuous record or a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each capable of providing a continuous record shall be used. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(2) Where a condenser is the final recovery device in the recovery system and the TRE index value is between 1.0 and 4.0, an organic monitoring device capable of providing a continuous record or a condenser exit (product side) temperature monitoring device capable of providing a continuous record shall be used. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(3) Where a carbon adsorber is the final recovery device in the recovery system and the TRE index value is between 1.0 and 4.0, an organic monitoring device capable of providing a continuous record; or an integrating regeneration stream flow monitoring device having an accuracy of ±10 percent or better, capable of recording the total regeneration stream mass or volumetric flow 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 shall be used. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(4) Unless previously approved by the Administrator under an applicable standard prior to the implementation date of this part, as specified in § 65.1(f) of subpart A of this part, if an owner or operator uses a recovery device other than those listed in this subpart, the owner or operator shall submit a description of planned monitoring, reporting and recordkeeping procedures as required under § 65.162(e). The Administrator will approve or deny the proposed monitoring, reporting and recordkeeping requirements as part of the review of the submission or permit application or by other appropriate means.

(5) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the recovery device. In order to establish the range, the information required in § 65.165(c) shall be submitted in the Initial Compliance Status Report or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications in § 65.157(b)(1) or upon existing ranges or limits established under a referencing subpart. Where the regeneration stream flow and carbon-bed temperature are monitored, the range shall be in terms of the total regeneration stream flow per regeneration cycle and the temperature of the carbon-bed determined within 15 minutes of the completion of the regeneration cooling cycle.

§ 65.154 Halogen scrubbers and other halogen reduction devices.

(a) *Halogen scrubber and other halogen reduction device equipment and operating requirements.* (1) An owner or operator of halogen scrubbers and other halogen reduction devices subject to this subpart shall reduce the overall emissions of hydrogen halides and halogens by 99 percent or reduce the outlet mass of total hydrogen halides and halogens to less than 0.45 kilograms per hour (0.99 pound per hour) as specified in § 65.63(b) of subpart D of this part for process vents or § 65.83(b) of subpart E of this part for transfer racks, as applicable, and shall meet the requirements of this section.

(2) Halogen scrubbers and other halogen reduction devices used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Halogen scrubber and other halogen reduction device performance test requirements.* (1) Unless an initial performance test was previously conducted and submitted under the referencing subpart, an owner or operator of a combustion device followed by a halogen scrubber or other halogen reduction device to control halogenated vent streams in accordance with § 65.63(b)(1) of subpart D of this part for process vents or § 65.83(b)(1) of subpart E of this part for transfer racks shall conduct an initial performance test to determine compliance with the control efficiency or emission limits for hydrogen halides and halogens according to the procedures in §§ 65.157 and 65.158. Performance test records shall be kept as specified in § 65.160(a) and (b) and a performance test report shall be submitted as specified in § 65.164.

(2) Unless the halogen atom mass emission rate was previously determined under the referencing subpart, an owner or operator of a halogen scrubber or other halogen reduction technique to reduce the vent stream halogen atom mass emission rate to less than 0.45 kilogram per hour (0.99 pound per hour) prior to a combustion device used to comply with § 65.63(b)(2) of subpart D of this part for process vents or § 65.83(b)(2) of subpart E of this part for transfer racks shall determine the halogen atom mass emission rate prior to the combustor according to the procedures in § 65.64(g) of subpart D of this part or § 65.83(b)(3) of subpart E of this part. Records of the halogen concentration in the vent stream shall be generated as specified in § 65.160(d).

(c) *Halogen scrubber and other halogen reduction device monitoring requirements.* (1) Where a halogen scrubber is used, the monitoring equipment specified in paragraphs (c)(1)(i) and (c)(1)(ii) of this section is required for the scrubber. Monitoring results shall be recorded as specified in § 65.161. General requirements for monitoring and continuous parameter monitoring systems are contained in § 65.156.

(i) A pH monitoring device capable of providing a continuous record shall be installed to monitor the pH of the scrubber effluent.

(ii) A flow meter capable of providing a continuous record shall be located at the scrubber influent for liquid flow. Gas stream flow shall be determined using one of the procedures specified in paragraphs (c)(1)(ii)(A) through (c)(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 the chemical manufacturing process unit of which it is part as specified in 40 CFR 63.100(k) of subpart F (if the referencing subpart is 40 CFR part 63, subpart F) or prior to the implementation date as specified in § 65.1(f) of subpart A of this part (for all other referencing subparts), 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 that compliance date 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 that will be used to determine the gas stream flow. The plan shall require determination of gas stream flow by a method that 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 startups, 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 § 65.5 of subpart A of this part.

(2) Where a halogen reduction device other than a scrubber is used, the procedures in § 65.162(e) shall be followed to establish monitoring parameters.

(3) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the scrubber or other halogen reduction device. In order to establish the range, the information required in § 65.165(c) shall be submitted in the Initial Compliance Status Report or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications in § 65.157(b)(1) or upon existing ranges or limits established under a referencing subpart.

§ 65.155 Other control devices.

(a) *Other control device equipment and operating requirements.* (1) Owners or operators using a control device other than one listed in §§ 65.147 through 65.152 to meet the 98 weight-percent emission reduction or 20 parts per million by volume outlet concentration requirements specified in § 65.63(a)(2) of subpart D of this part or 40 CFR 60.562–1(a)(1)(i)(A) of subpart DDD for process vents or § 65.83(a)(1) of subpart E of this part for transfer racks, as applicable, shall meet the requirements of this section.

(2) Other control devices used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to them.

(b) *Other control device performance test requirements.* Unless an initial performance test was previously conducted and submitted under the referencing subpart, an owner or operator of a control device other than those specified in §§ 65.147 through 65.152, to comply with § 65.63(a)(2) of subpart D of this part for process vents or § 65.83(a)(1) of subpart E of this part for transfer racks shall perform an initial performance test according to the procedures in §§ 65.157 and 65.158. Performance test records shall be kept as specified in § 65.160(a) and (b) and a performance test report shall be submitted as specified in § 65.164.

(c) *Other control device monitoring requirements.* (1) Unless previously submitted and approved under the referencing subpart, if an owner or operator uses a control device other than those listed in this subpart, the owner or operator shall submit a description of planned monitoring, reporting, and recordkeeping procedures as required under § 65.162(e). The Administrator will approve, deny, or modify based on the reasonableness of the proposed monitoring, reporting, and recordkeeping requirements as part of the review of the submission or permit application or by other appropriate means.

(2) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the control device. To establish the range, the information required in § 65.165(c) shall be submitted in the Initial Compliance Status Report or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications in § 65.157(b)(1) or upon existing ranges or limits established under a referencing subpart.

§ 65.156 General monitoring requirements for control and recovery devices.

(a) *General monitoring requirement applicability.* (1) This section applies to the owner or operator of a regulated source required to monitor under this subpart.

(2) Flares subject to § 65.147(c) are not subject to the requirements of this section.

(3) Flow indicators are not subject to the requirements of this section.

(b) *Conduct of monitoring.* (1) Monitoring shall be conducted as set forth in this section and in the relevant sections of this subpart unless the provision in either paragraph (b)(1)(i) or (b)(1)(ii) of this section applies.

(i) The Administrator specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures; or

(ii) The Administrator approves the use of alternatives to any monitoring requirements or procedures as provided in § 65.7(b), (c), and (d) of subpart A of this part.

(2) When one CPMS is used as a backup to another CPMS, the owner or operator shall report the results from the CPMS used to meet the monitoring requirements of this subpart. If both such CPMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CPMS for the relevant compliance period.

(c) *Operation and maintenance of continuous parameter monitoring systems.* (1) All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturers specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(2) The owner or operator of a regulated source shall maintain and operate each CPMS as specified in this section or in a relevant subpart, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of a regulated source shall ensure the immediate repair or replacement of CPMS parts to correct ''routine'' or otherwise predictable CPMS malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available.

(ii) Except for Group 2A process vents, if the startup, shutdown, and malfunction plan is followed during a CPMS startup, shutdown, or malfunction and the CPMS is repaired immediately, this action shall be reported in the semiannual startup, shutdown, and malfunction report required under § 65.6(b)(1) of subpart A of this part.

(iii) The Administrator's determination of whether acceptable operation and maintenance procedures are being used for the CPMS will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records, manufacturer's recommendations and specifications, and inspection of the CPMS.

(3) All CPMS's shall be installed and operational, and the data verified as specified in this subpart either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(4) All CPMS shall be installed such that representative measurements of

parameters from the regulated source are obtained.

(5) In accordance with § 65.3(a)(3) of subpart A of this part, except for system breakdowns, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, all CPMS shall be in continuous operation when emissions are being routed to the monitored device.

(d) Except for Group 2A process vents, the parameter monitoring data shall be used to determine compliance with the required operating conditions for the monitored control devices. For each excursion, except for excused excursions, the owner or operator shall be deemed to have failed to have applied the control in a manner that achieves the required operating conditions.

(1) An excursion means any of the three cases listed in paragraphs (d)(1)(i) through (d)(1)(iii) of this section. For a control device where multiple parameters are monitored, if one or more of the parameters meets the excursion criteria in paragraph (d)(1)(i), (d)(1)(ii), or (d)(1)(iii), this is considered a single excursion for the control device.

(i) When the daily average value of one or more monitored parameters is outside the permitted range.

(ii) When the period of control or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.

(iii) When the period of control or recovery device operation is less than 4 hours in an operating day and more than 1 hour during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.

(iv) Monitoring data are insufficient to constitute a valid hour of data as used in paragraphs (d)(1)(ii) and (d)(1)(iii) of this section, if measured values are unavailable for any of the 15-minute periods within the hour. For data compression systems approved under § 65.162(d)(4), monitoring data are insufficient to calculate a valid hour of data if there are less than four data values recorded during the hour.

(2) One excused excursion for each control device or recovery device for each semiannual period is allowed.

(3) The excursions described in paragraphs (d)(3)(i) through (d)(3)(iii) of this section are not violations, and do not count as excused excursions.

(i) Excursions which occur during periods of startup, shutdown, and malfunction, when the source is being operated during such periods in accordance with its startup, shutdown, and malfunction plan as required by § 65.6 of subpart A.

(ii) Excursions which occur due to failure to collect a valid hour of data during periods of startup, shutdown, and malfunction, when the source is being operated during such periods in accordance with its startup, shutdown, and malfunction plan as required by § 65.6 of subpart A.

(iii) Excursions which occur during periods of nonoperation of the regulated source or portion thereof, resulting in cessation of the emissions to which monitoring applies.

(4) Nothing in paragraph (d) of this section shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of this part.

(5) Paragraph (d) of this section, except paragraph (d)(3) of this section, shall apply only to emission points and control devices for which continuous monitoring is required by this subpart.

(e) *Alternative monitoring parameter.* An owner or operator may request approval to monitor control, recovery, halogen scrubber, or halogen reduction device operating parameters other than those specified in this subpart by following the procedures specified in § 65.162(e).

§ 65.157 Performance test and flare compliance determination requirements.

(a) *Performance tests and flare compliance determinations.* Where §§ 65.145 through 65.155 require or the owner or operator elects to conduct a performance test of a nonflare control device or a halogen reduction device, or a compliance determination for a flare, the requirements of paragraphs (b) through (d) of this section apply.

(b) *Prior test results and waivers.* Initial performance tests and initial flare compliance determinations are required only as specified in this subpart.

(1) Unless requested by the Administrator, an owner or operator is not required to conduct a performance test or flare compliance determination under this subpart if a prior performance test or compliance determination was conducted using the same methods specified in § 65.158 and either no 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.

(2) Individual performance tests and flare compliance determinations may be waived upon written application to the Administrator per § 65.164(b)(3) if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance under 40 CFR part 63 or a waiver of compliance under 40 CFR part 61, or the owner or operator has requested an extension of compliance under 40 CFR part 63 or a waiver of compliance under 40 CFR part 61, and the Administrator is still considering that request.

(3) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notification is given to the owner or operator of the source.

(c) *Performance tests and flare compliance determinations schedule.*

(1) Unless a waiver of performance testing or flare compliance determination is obtained under this section or the conditions of another subpart of this part, the owner or operator shall perform such tests specified in paragraphs (c)(1)(i) through (c)(1)(vii) of this section.

(i) Within 180 days after the effective date of a relevant standard for a new source that has an initial startup date before the effective date of that standard; or

(ii) Within 180 days after initial startup for a new source that has an initial startup date after the effective date of a relevant standard; or

(iii) Within 180 days after the compliance date specified in a referencing subpart for an existing source or within 180 days after startup of an existing source if the source begins operation after the effective date of the relevant 40 CFR part 63 emission standard; or

(iv) Within 180 days after the compliance date for an existing source subject to an emission standard established pursuant to section 112(f) of the Act; or

(v) Within 180 days after the termination date of the source's extension of compliance or a waiver of compliance for an existing source that obtains an extension of compliance under 40 CFR 63.6(i) of subpart A or a waiver of compliance under 40 CFR 61.11 of subpart A; or

(vi) Within 180 days after the compliance date for a new source, subject to an emission standard established pursuant to section 112(f) of the Act, for which construction or reconstruction is commenced after the proposal date of a relevant standard

established pursuant to section 112(d) of the Act but before the proposal date of the relevant standard established pursuant to section 112(f) [see 40 CFR 63.6(b)(4) of subpart A]; or

(vii) When an emission standard promulgated under part 63 is more stringent than the standard that was proposed [see 40 CFR 63.6(b)(3) of subpart A], the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(2) The Administrator may require an owner or operator to conduct performance tests and compliance determinations at the regulated source at any time when the action is authorized by section 114 of the Act.

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new regulated source and, at the request of the Administrator, the owner or operator of each existing regulated source, shall provide performance testing facilities as specified in paragraphs (d)(1) through (d)(5) of this section.

(1) Sampling ports adequate for test methods applicable to such source. This includes, as applicable, the requirements specified in paragraphs (d)(1)(i) and (d)(1)(ii) of this section.

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

§ 65.158 Performance test procedures for control devices.

(a) *General procedures.* Where §§ 65.145 through 65.155 require or the owner or operator elects to conduct a performance test of a control device or a halogen reduction device, an owner or operator shall follow the requirements of paragraphs (a)(1) through (a)(3) of this section, as applicable.

(1) Performance tests shall be conducted at maximum representative operating conditions for the process unless the Administrator specifies or approves alternate operating conditions. During the performance test, an owner or operator may operate the control or halogen reduction device at maximum or minimum representative operating conditions for monitored control or halogen reduction device parameters, whichever results in lower emission reduction. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this subpart, in each relevant standard, and, if required, in applicable appendices of 40 CFR parts 51, 60, 61, and 63 unless the Administrator allows revisions to the test methods as specified in one or more of the paragraphs (a)(2)(i) through (a)(2)(v) of this section.

(i) The Administrator specifies or approves, in specific cases, the use of a test method with minor changes in methodology; or

(ii) The Administrator approves the use of an alternative test method, the results of which the Administrator has determined to be adequate for indicating whether a specific regulated source is in compliance. The alternative method or data shall be validated using the applicable procedures of Method 301 of appendix A of 40 CFR part 63; or

(iii) The Administrator approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors; or

(iv) The Administrator waives the requirement for the performance test as provided in § 65.157(b)(2) because the owner or operator of a regulated source has demonstrated by other means to the Administrator's satisfaction that the regulated source is in compliance with the relevant standard; or

(v) The Administrator approves the use of an equivalent method.

(3) Each performance test shall consist of three separate runs using the applicable test method. Except as provided in paragraphs (a)(3)(i) and (a)(3)(ii) of this section, each run shall be conducted for at least 1 hour and under the conditions specified in this section. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(i) For control devices that are used to control emissions from transfer racks (except low-throughput transfer racks), and that are capable of continuous vapor processing but do not handle continuous emissions or emissions from transfer racks that load simultaneously from multiple loading arms each run shall represent at least one complete tank truck or tank car loading period during which regulated materials are loaded, and samples shall be collected using integrated sampling or grab samples taken at least four times per hour at approximately equal intervals of time, such as 15-minute intervals.

(ii) For intermittent vapor processing systems used for controlling transfer rack emissions (except low-throughput transfer racks) that do not handle continuous emissions or multiple loading arms of a transfer rack that load simultaneously, each run shall represent at least one complete control device cycle, and samples shall be collected using integrated sampling or grab samples taken at least four times per hour at approximately equal intervals of time, such as 15-minute intervals.

(b) *Test methods.* Where §§ 65.145 through 65.155 require or the owner or operator elects to conduct a performance test of a control device or a halogen reduction device, an owner or operator shall conduct that performance test using the procedures in paragraphs (b)(1) through (b)(4) of this section, as applicable. The regulated material concentration and percent reduction may be measured as either total regulated material or as TOC minus methane and ethane according to the procedures specified.

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

(i) For determination of compliance with a percent reduction requirement of total regulated material or TOC, sampling sites shall be located at the inlet of the control device as specified in paragraphs (b)(1)(i)(A) and (b)(1)(i)(B) of this section and at the outlet of the control device.

(A) For process vents, the control device inlet sampling site shall be located after the final product recovery device.

(B) If a vent stream is introduced with the combustion air or as a secondary fuel into a boiler or process heater with a design capacity less than 44 megawatts (150 million British thermal units per hour), selection of the location of the inlet sampling sites shall ensure the measurement of total regulated material or TOC (minus methane and ethane) concentrations, as applicable, in all vent streams and primary and secondary fuels introduced into the boiler or process heater.

(ii) For determination of compliance with the 20 parts per million by volume total regulated material or TOC limit in § 65.63(a)(2) of subpart D of this part, § 65.83(a)(1) of subpart E of this part, and 40 CFR 60.562–1(a)(1)(i)(A) of subpart DDD, the sampling site shall be located at the outlet of the control device.

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

(3) To determine compliance with the 20 parts per million by volume total regulated material or TOC (minus methane and ethane) limit, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A, to measure either TOC minus methane and ethane or total regulated material, as applicable. Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A of 40 CFR part 63, may be used. Method 25A may be used for transfer racks as detailed in paragraph (b)(3)(iv) of this section. The procedures specified in paragraphs (b)(3)(i) through (b)(3)(iv) of this section shall be used to calculate parts per million by volume concentration, corrected to 3 percent oxygen.

(i) Except as provided in paragraphs (a)(3)(i) and (a)(3)(ii) of this section, the minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.

(ii) The concentration of either TOC (minus methane or ethane) or total regulated material shall be calculated according to paragraph (b)(3)(ii)(A) or (b)(3)(ii)(B) of this section.

(A) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be computed for each run using equation 158–1.

$$C_{REG,}\ \text{or}\ C_{TOC} = \sum_{i=1}^{x} \frac{\left(\sum_{j=1}^{n} C_{ji}\right)}{x} \qquad (158\text{-}1)$$

Where:

C_{REG}, or

C_{TOC} = Concentration of total regulated material or concentration of TOC (minus methane and ethane), dry basis, parts per million by volume.

x = Number of samples in the sample run.

n = Number of components in the sample.

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

(B) The total regulated material (C_{REG}) shall be computed according to equation 158–1 except that only the regulated species shall be summed. Where the regulated material is organic HAP's, the list of organic HAP's provided in table 2 of 40 CFR part 63, subpart F, shall be used.

(iii) The concentration of TOC or total regulated material, as applicable, shall be corrected to 3 percent oxygen if a combustion device is the control device.

(A) The emission rate correction factor (or excess air) integrated sampling and analysis procedures of Method 3B of 40 CFR part 60, appendix A, shall be used to determine the oxygen concentration. The sampling site shall be the same as that of the regulated material or organic compound samples, and the samples shall be taken during the same time that the regulated material or organic compound samples are taken.

(B) The concentration corrected to 3 percent oxygen (C_c) shall be computed using equation 158–2.

$$C_c = C_m\left(\frac{17.9}{20.9 - \%O2_d}\right) \qquad (158\text{-}2)$$

Where:

C_c = Concentration of TOC or regulated material corrected to 3 percent oxygen, dry basis, parts per million by volume.

C_m = Concentration of TOC (minus methane and ethane) or regulated material, dry basis, parts per million by volume.

$\%O2_d$ = Concentration of oxygen, dry basis, percentage by volume.

(iv) Method 25A of 40 CFR part 60, appendix A may be used for the purpose of determining compliance with the 20 parts per million by volume limit specified in § 65.83(a)(1) of subpart E of this part for transfer racks. If Method 25A of 40 CFR part 60, appendix A is used, the procedures specified in paragraphs (b)(3)(iv)(A) through (b)(3)(iv)(D) of this section shall be used to calculate the concentration of organic compounds (C_{TOC}).

(A) The principal organic HAP in the vent stream shall be used as the calibration gas.

(B) The span value for Method 25A of 40 CFR part 60, appendix A, shall be between 1.5 and 2.5 times the concentration being measured.

(C) Use of Method 25A of 40 CFR part 60, appendix A, is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(D) The concentration of TOC shall be corrected to 3 percent oxygen using the procedures and equation in paragraph (b)(3)(iii) of this section.

(4) To determine compliance with a percent reduction requirement, the owner or operator shall use Method 18 of 40 CFR part 60, appendix A; alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of appendix A of 40 CFR part 63 may be used. Method 25A of 40 CFR part 60, appendix A may be used for transfer racks as detailed in paragraph (b)(4)(v) of this section. Procedures specified in paragraphs (b)(4)(i) through (b)(4)(v) of this section shall be used to calculate percent reduction efficiency.

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

(ii) The mass rate of either TOC (minus methane and ethane) or total regulated material (E_i, E_o) shall be computed as applicable.

(A) Equations 158–3 and 158–4 shall be used.

$$E_i = K_2\left(\sum_{j=1}^{n} C_{ij}M_{ij}\right)Q_i \qquad (158\text{-}3)$$

$$E_o = K_2\left(\sum_{j=1}^{n} C_{oj}M_{oj}\right)Q_o \qquad (158\text{-}4)$$

Where:

E_i, E_o = Emission rate of TOC (minus methane and ethane) (E_{TOC}) or emission rate of total organic HAP (E_{HAP}) in the sample at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour.

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

n = Number of components in the sample.

C_{ij}, C_{oj} = Concentration on a dry basis of organic compound j in parts per million by volume of the gas stream at the inlet and outlet of the control device, respectively. If the TOC emission rate is being calculated, C_{ij} and C_{oj} include all organic compounds measured minus methane and ethane; if the total organic HAP emissions rate is being calculated, only organic HAP are included.

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

Q_i, Q_o = Process vent flow rate, dry standard cubic meter per minute, at a temperature of 20 °C, at the inlet and outlet of the control device, respectively.

(B) Where the mass rate of TOC is being calculated, all organic compounds (minus methane and ethane) measured by Method 18 of 40 CFR part 60, appendix A, are summed using equations 158–3 and 158–4.

(C) Where the mass rate of total regulated material is being calculated, only the species comprising the regulated material shall be summed using equations 158–3 and 158–4. Where the regulated material is organic HAP's, the list of organic HAP's provided in table 2 of 40 CFR part 63, subpart F, shall be used.

(iii) The percent reduction in TOC (minus methane and ethane) or total regulated material shall be calculated using equation 158–5.

$$R = \frac{E_i - E_o}{E_i}(100) \qquad (158\text{-}5)$$

Where:

R = Control efficiency of control device, percent.

E_i=Mass rate of TOC (minus methane and ethane) or total regulated material at the inlet to the control device as calculated under paragraph (b)(4)(ii) of this section, kilograms TOC per hour or kilograms regulated material per hour.

E_o=Mass rate of TOC (minus methane and ethane) or total regulated material at the outlet of the control device, as calculated under paragraph (b)(4)(ii) of this section, kilograms TOC per hour or kilograms total regulated material per hour.

(iv) If the vent stream entering a boiler or process heater with a design capacity less than 44 megawatts (150 million British thermal units) is introduced with the combustion air or as a secondary fuel, the weight-percent reduction of total regulated material or TOC (minus methane and ethane) across the device shall be determined by comparing the TOC (minus methane and ethane) or total regulated material in all combusted vent streams and primary and secondary fuels with the TOC (minus methane and ethane) or total regulated material exiting the combustion device, respectively.

(v) Method 25A of 40 CFR part 60, appendix A, may also be used for the purpose of determining compliance with the percent reduction requirement for transfer racks.

(A) If Method 25A of 40 CFR part 60, appendix A, is used to measure the concentration of organic compounds (C_{TOC}), the principal regulated material in the vent stream shall be used as the calibration gas.

(B) An emission testing interval shall consist of each 15-minute period during the performance test. For each interval, a reading from each measurement shall be recorded.

(C) The average organic compound concentration and the volume measurement shall correspond to the same emissions testing interval.

(D) The mass at the inlet and outlet of the control device during each testing interval shall be calculated using equation 158–6.

$$M_j = F\ k\ V_s\ C_t \qquad (158\text{–}6)$$

Where:

M_j=Mass of organic compounds emitted during testing interval j, kilograms.

$F=10^{-6}$ = Conversion factor, (cubic meters regulated material per cubic meters air) * (parts per million by volume)$^{-}$1.

K=Density, kilograms per standard cubic meter regulated material. =659 kilograms per standard cubic meter regulated material. (Note: The density term cancels out when the percent reduction is calculated. Therefore, the density used has no effect. The density of hexane is given so that it can be used to maintain the units of Mj.)

V_s=Volume of air-vapor mixture exhausted at standard conditions, 20 °C and 760 millimeters of mercury (30 inches of mercury), standard cubic meters.

C_t=Total concentration of organic compounds (as measured) at the exhaust vent, parts per million by volume, dry basis.

(E) The organic compound mass emission rates at the inlet and outlet of the control device shall be calculated as follows: where:

$$E_i = \frac{\sum_{j=1}^{n} M_{ij}}{T} \qquad (158\text{-}7)$$

$$E_o = \frac{\sum_{j=1}^{n} M_{oj}}{T} \qquad (158\text{-}8)$$

Where:

E_i, E_o=Mass flow rate of organic compounds at the inlet (i) and outlet (o) of the control device, kilograms per hour.

n=Number of testing intervals.

M_{ij}, M_{oj}=Mass of organic compounds at the inlet (i) or outlet (o) during testing interval j, kilograms.

T=Total time of all testing intervals, hours.

(c) *Halogen test method.* An owner or operator using a halogen scrubber or other halogen reduction device to control halogenated vent streams in compliance with § 65.63(b)(1) of subpart D of this part for process vents or § 65.83(b)(1) of subpart E of this part for transfer racks, who is required to conduct a performance test to determine compliance with the control efficiency or emission limits for hydrogen halides and halogens, as specified in § 65.154(b)(1) shall follow the procedures specified in paragraphs (c)(1) through (c)(4) of this section.

(1) For an owner or operator determining compliance with the percent reduction of total hydrogen halides and halogens, sampling sites shall be located at the inlet and outlet of the scrubber or other halogen reduction device used to reduce halogen emissions. For an owner or operator determining compliance with the less than 0.45 kilogram per hour (0.99 pounds per hour) outlet emission limit for total hydrogen halides and halogens,

the sampling site shall be located at the outlet of the scrubber or other halogen reduction device and prior to any releases to the atmosphere.

(2) Except as provided in paragraph (a)(2) of this section, Method 26 or Method 26A of 40 CFR part 60, appendix A, shall be used to determine the concentration, in milligrams per dry standard cubic meter, of total hydrogen halides and halogens that may be present in the vent stream. The mass emissions of each hydrogen halide and halogen compound shall be calculated from the measured concentrations and the gas stream flow rate.

(3) To determine compliance with the percent removal efficiency, the mass emissions for any hydrogen halides and halogens present at the inlet of the halogen reduction device shall be summed together. The mass emissions of the compounds present at the outlet of the scrubber or other halogen reduction device shall be summed together. Percent reduction shall be determined by comparison of the summed inlet and outlet measurements.

(4) To demonstrate compliance with the less than 0.45 kilogram per hour (0.99 pound per hour) outlet emission limit, the test results must show that the mass emission rate of total hydrogen halides and halogens measured at the outlet of the scrubber or other halogen reduction device is below 0.45 kilogram per hour (0.99 pound per hour).

§ 65.159 Flare compliance determination and monitoring records.

(a) *Conditions of flare compliance determination records.* Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of flare compliance determinations performed pursuant to § 65.147(b).

(b) *Flare compliance determination records.* When using a flare to comply with this subpart, record the information specified in paragraphs (b)(1) through (b)(3) of this section for each flare compliance determination performed pursuant to § 65.147(b). As specified in § 65.164(a)(1), the owner or operator shall include this information in the flare compliance determination report.

(1) Flare design (i.e., steam-assisted, air-assisted, or nonassisted);

(2) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the flare compliance determination; and

(3) All periods during the flare compliance determination when all pilot flames are absent or, if only the flare flame is monitored, all periods when the flare flame is absent.

(c) *Monitoring records.* Each owner or operator shall keep up to date and readily accessible hourly records of whether the flare flame or pilot flame monitors are continuously operating and whether the flare flame or at least one pilot flame is continuously present. For transfer racks, hourly records are required only while the transfer vent stream is being vented.

(d) *Compliance records.* (1) Each owner or operator shall keep records of the times and duration of all periods during which the flare flame and all the pilot flames are absent. This record shall be submitted in the periodic reports as specified in § 65.166(c).

(2) Each owner or operator shall keep records of the times and durations of all periods during which the flare flame or pilot flame monitors are not operating.

§ 65.160 Performance test and TRE index value determination records.

(a) *Availability of performance tests records.* Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests performed pursuant to § 65.148(b), § 65.149(b), § 65.150(b), § 65.151(b), § 65.152(b), § 65.154(b), or § 65.155(b).

(b) *Nonflare control device and halogen reduction device performance test records.* Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the data specified in paragraphs (b)(1) through (b)(3) of this section, as applicable, measured during each performance test performed pursuant to § 65.148(b), § 65.149(b), § 65.150(b), § 65.151(b), § 65.152(b), § 65.154(b), or § 65.155(b), and also include that data in the Initial Compliance Status Report as specified in § 65.164(a). The same data specified in paragraphs (b)(1) through (b)(3) of this section, as applicable, shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a nonflare control device or the outlet concentration of TOC or regulated material is determined.

(1) *Nonflare combustion device.* Where an owner or operator subject to the provisions of paragraph (b) of this section seeks to demonstrate compliance with a percent reduction requirement or a parts per million by volume requirement using a nonflare combustion device, the information specified in paragraphs (b)(1)(i) through (b)(1)(vi) of this section shall be recorded.

(i) For thermal incinerators, record the fire box temperature averaged over the full period of the performance test.

(ii) For catalytic incinerators, record the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test.

(iii) For an incinerator, record the percent reduction of regulated material or TOC achieved by the incinerator determined as specified in § 65.158(b)(4), as applicable, or the concentration of regulated material or TOC (parts per million by volume, by compound) determined as specified in § 65.158(b)(3) at the outlet of the incinerator.

(iv) For a boiler or process heater, record a description of the location at which the vent stream is introduced into the boiler or process heater.

(v) For boilers or process heaters with a design heat input capacity less than 44 megawatts (150 British thermal units per hour) and where the vent stream is not introduced with or as the primary fuel, record the fire box temperature averaged over the full period of the performance test.

(vi) For a boiler or process heater with a design heat input capacity of less than 44 megawatts (150 British thermal units per hour) and where the process vent stream is introduced with combustion air or used as a secondary fuel and is not mixed with the primary fuel, record the percent reduction of regulated material or TOC, or the concentration of regulated material or TOC (parts per million by volume, by compound) determined as specified in § 65.158(b)(3) at the outlet of the combustion device.

(2) *Other nonflare control devices.* Where an owner or operator seeks to use an absorber, condenser, or carbon adsorber as a control device, the information specified in paragraphs (b)(2)(i) through (b)(2)(v) shall be recorded, as applicable.

(i) Where an absorber is used as the control device, the exit specific gravity and average exit temperature of the absorbing liquid measured at least every 15 minutes and averaged over the same time period as the performance test (both measured while the vent stream is normally routed and constituted); or

(ii) Where a condenser is used as the control device, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period as the performance test while the vent stream is routed and constituted normally; or

(iii) Where a carbon adsorber is used as the control device, the total regeneration stream mass flow during

each carbon-bed regeneration cycle during the period of the performance test measured at least every 15 minutes and averaged over the same time period as the performance test (full carbon-bed cycle), and temperature of the carbon-bed after each regeneration during the period of the performance test (and within 15 minutes of completion of any cooling cycle or cycles); or

(iv) As an alternative to paragraph (b)(2)(i), (b)(2)(ii), or (b)(2)(iii) of this section, the concentration level or reading indicated by the organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber measured at least every 15 minutes and averaged over the same time period as the performance test while the vent stream is normally routed and constituted.

(v) For an absorber, condenser, or carbon adsorber used as a control device, the percent reduction of regulated material or TOC achieved by the control device determined as specified in § 65.158(b)(4), or the concentration of regulated material or TOC (parts per million by volume, by compound) determined as specified in § 65.158(b)(3) at the outlet of the control device.

(3) *Halogen reduction devices.* When using a scrubber following a combustion device to control a halogenated vent stream, record the information specified in paragraphs (b)(3)(i) through (b)(3)(iii) of this section.

(i) The percent reduction or scrubber outlet mass emission rate of total hydrogen halides and halogens as specified in § 65.158(c).

(ii) The pH of the scrubber effluent averaged over the time period of the performance test; and

(iii) The scrubber liquid-to-gas ratio averaged over the time period of the performance test.

(c) *Recovery device monitoring records during the TRE index value determination.* For Group 2A process vents, the records specified in paragraph (c)(1) through (c)(5) of this section, as applicable, shall be maintained and they shall be reported as specified in § 65.164(a)(3).

(1) Where an absorber is the final recovery device in the recovery system, the exit specific gravity and average exit temperature of the absorbing liquid measured at least every 15 minutes and averaged over the same time period as the TRE index value determination (both measured while the vent stream is normally routed and constituted); or

(2) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period as the TRE index value determination while the vent stream is routed and constituted normally; or

(3) Where a carbon adsorber is the final recovery device in the recovery system, the total regeneration stream mass flow measured at least every 15 minutes and averaged over the same time during each carbon-bed regeneration cycle during the period of the TRE index value determination, and temperature of the carbon-bed after each regeneration during the period of the TRE index value determination (and within 15 minutes of completion of any cooling cycle or cycles); or

(4) As an alternative to paragraph (c)(1), (c)(2), or (c)(3) of this section, the concentration level or reading indicated by an organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber measured at least every 15 minutes and averaged over the same time period as the TRE index value determination while the vent stream is normally routed and constituted.

(5) All measurements and calculations performed to determine the TRE index value of the vent stream as specified in § 65.64(h) of subpart D of this part.

(d) *Halogen concentration records.* Record the halogen concentration in the vent stream determined according to the procedures as specified in § 65.63(b) of subpart D of this part or § 65.83(b) of subpart E of this part. Submit this record in the Initial Compliance Status Report, as specified in § 65.165(d).

§ 65.161 Continuous records and monitoring system data handling.

(a) *Required records.* Where this subpart requires a monitoring device capable of providing a continuous record, the owner or operator shall maintain the record specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section, as applicable. The provisions of this section apply to owners and operators of storage vessels and low-throughput transfer racks only if specified by the applicable monitoring plan established under § 65.165(c)(1) and (c)(2).

(1) A record of values measured at least once every 15 minutes or each measured value for systems that measure more frequently than once every 15 minutes; or

(2) A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute; or

(3) A record of block hourly average values calculated from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and a record of the most recent 3 valid hours of continuous (15-minute or shorter) records meeting the requirements of paragraph (a)(1) or (a)(2) of this section.

(4) A record as required by an alternative approved under § 65.162(d).

(b) *Excluded data.* Monitoring data recorded during periods identified in paragraphs (b)(1) through (b)(3) of this section shall not be included in any average computed to determine compliance under this subpart.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;

(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and

(3) Startups, shutdowns, and malfunctions.

(c) *Additional records.* In addition to the records specified in paragraph (a) of this section, owners or operators shall also keep records as specified in paragraphs (c)(1) and (c)(2) of this section unless an alternative monitoring or recordkeeping system has been requested and approved under § 65.162(d).

(1) Except as specified in paragraph (c)(2) of this section, daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of paragraph (b) of this section for each operating day and retained for 5 years. The data shall be reported in the periodic report as specified in § 65.166(f), if applicable.

(i) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The 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 example, for transfer racks, the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values.

(ii) The operating day shall be the period defined in the operating permit or the Initial Compliance Status Report. It may be from midnight to midnight or another daily period.

(2) If all recorded values for a monitored parameter during an operating day are within the range established in the Initial Compliance Status Report or in the operating permit, the owner or operator may record that

all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day.

(d) *Valid data.* Unless determined to be excluded data according to paragraph (b) of this section, the data collected pursuant to paragraphs (a) through (c) of this section shall be considered valid.

(e) *Alternative recordkeeping.* For any parameter with respect to any item of equipment, the owner or operator may implement the recordkeeping requirements in paragraph (e)(1) or (e)(2) of this section as alternatives to the continuous parameter monitoring and recordkeeping provisions listed in paragraphs (a) through (c) of this section. The owner or operator shall retain each record required by paragraph (e)(1) or (e)(2) of this section as provided in § 65.4 of subpart A of this part.

(1) The owner or operator may retain only the daily average value and is not required to retain more frequently monitored operating parameter values for a monitored parameter with respect to an item of equipment if the requirements of paragraphs (e)(1)(i) through (e)(1)(vi) of this section are met. The owner or operator shall notify the Administrator of implementation of paragraph (e)(1) of this section in the Initial Compliance Status Report as required in § 65.165(e) or, if the Initial Compliance Status Report has already been submitted, in the periodic report as required in § 65.166(f)(4) immediately preceding implementation of the requirements of paragraph (e)(1) of this section.

(i) The monitoring system shall be capable of detecting unrealistic or impossible data during periods of operation other than startups, shutdowns, or malfunctions (for example, 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 constitute a single occurrence.

(ii) The monitoring system shall generate a running average of the monitoring values, updated at least hourly throughout each operating day, that have been obtained during that operating day, and the capability to observe this 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 (e)(1)(ii)(A) through (e)(1)(ii)(C) of this section. All instances in an operating day constitute a single occurrence.

(A) The running average is above the maximum or below the minimum established limits; and

(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 startup, shutdown, or malfunction.

(iii) The monitoring system shall be capable of detecting unchanging data during periods of operation other than startups, shutdowns, or malfunctions except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (for example, 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 constitute a single occurrence.

(iv) The monitoring system shall alert the owner or operator by an alarm if the running average parameter value calculated under paragraph (e)(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 (e)(1) of this section, at the times specified in paragraphs (e)(1)(v)(A) through (e)(1)(v)(C) of this section. 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, that 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 (e)(1)(vi)(A) through (e)(1)(vi)(C) 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 § 65.162(e).

(B) A description of the applicable monitoring system(s) and of how compliance will be achieved with each requirement of paragraph (e)(1)(i) through (e)(1)(v) of this section. The description shall identify the location and format (for example, 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 outdated description. Owners and operators shall retain the current description of the monitoring system as long as the description is current, but not less than 5 years from the date of its creation. The current description shall be retained on-site at all times or be accessible from a central location by computer or other means that provide access within 2 hours after a request. The owner or operator shall retain the most recent outdated description at least until 5 years from the date of its creation. The outdated description shall be retained on-site (or accessible from a central location by computer that provides access within 2 hours after a request) at least 6 months after being outdated. Thereafter, the outdated description may be stored off-site.

(C) A description and the date of any change to the monitoring system that would reasonably be expected to affect its ability to comply with the requirements of paragraph (e)(1) of this section.

(2) If an owner or operator has elected to implement the requirements of paragraph (e)(1) of this section and a period of 6 consecutive months has passed without an excursion as defined in paragraph (e)(2)(iv) of this section, the owner or operator is no longer required to record the daily average value for that parameter for that unit of equipment for any operating day when the daily 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 were required and/or approved by the Administrator.

(i) If the owner or operator elects not to retain the daily average values, the owner or operator shall notify the Administrator in the next periodic report. The notification shall identify the parameter and unit of equipment.

(ii) If there is an excursion as defined in paragraph (e)(2)(iv) of this section on any operating day after the owner or operator has ceased recording daily averages as provided in paragraph (e)(2) of this section, the owner or operator shall immediately resume retaining the daily average value for each day and shall notify the Administrator in the next periodic report. The owner or operator shall continue to retain each daily average value until another period of 6 consecutive months has passed without an excursion.

(iii) The owner or operator shall retain the records specified in paragraphs (e)(1)(i) through (e)(1)(vi) of this section for the duration specified in § 65.4 of subpart A of this part. For any calendar

week, if compliance with paragraphs (e)(1)(i) through (e)(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 startup, shutdown, or malfunction.

(iv) For purposes of paragraph (e) of this section, an excursion means that the daily average value of monitoring data for a parameter is greater than the maximum or less than the minimum established value except as provided in paragraphs (e)(2)(iv)(A) and (e)(2)(iv)(B) of this section.

(A) The daily average value during any startup, shutdown, or malfunction shall not be considered an excursion for purposes of paragraph (e) if the owner or operator follows the applicable provisions of the startup, shutdown, and malfunction plan required by § 65.6 of subpart A of this part.

(B) An excused excursion as described in § 65.156(d) shall not be considered an excursion for purposes of paragraph (e) of this section.

§ 65.162 Nonflare control and recovery device monitoring records.

(a) *Monitoring system records.* For process vents and transfer racks (except low-throughput transfer racks), the owner or operator subject to this subpart shall keep the records specified in paragraph (a) of this section as well as records specified elsewhere in this part.

(1) For CPMS's used to comply with this part, a record of the procedure used for calibrating the CPMS.

(2) For a CPMS used to comply with this subpart, records of the information specified in paragraphs (a)(2)(i) through (a)(2)(v) of this section, as applicable.

(i) The date and time of completion of calibration and preventive maintenance of the CPMS.

(ii) The ''as found'' and ''as left'' CPMS readings whenever an adjustment is made that affects the CPMS reading and a ''no adjustment'' statement otherwise.

(iii) The start time and duration or start and stop time of any periods when the CPMS is inoperative or malfunctioning.

(iv) Records of the occurrence and duration of each startup, shutdown, and malfunction of CPMS used to comply with this part during which excess emissions (as defined in § 65.3(a)(4) of subpart A of this part occur.

(v) For each startup, shutdown, and malfunction during which excess emissions as defined in § 65.3(b)(4) of subpart A of this part occur, records whether the procedures specified in the source's startup, shutdown, and malfunction plan were followed and documentation of actions taken that are not consistent with the plan. These records may take the form of a checklist, or other form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for the event.

(3) Records of startup, shutdown, and malfunction and CPMS calibration and maintenance are not required if they pertain solely to Group 2A process vents.

(b) *Combustion control and halogen reduction device monitoring records.* (1) Each owner or operator using a combustion control or halogen reduction device to comply with this subpart shall keep, as applicable, up to date and readily accessible continuous records, as specified in § 65.161(a); and records of the equipment operating parameters specified to be monitored under § 65.148(c) (incinerator monitoring), § 65.149(c) (boiler and process heater monitoring), § 65.154(c) (halogen reduction device monitoring), § 65.155(c) (other control device monitoring), or specified by the Administrator in accordance with paragraph (e) of this section.

(2) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in § 65.161(c)(1). For catalytic incinerators, record the daily average of the temperature upstream of the catalyst bed and the daily average of the temperature differential across the bed. For halogen scrubbers, record the daily average pH and the liquid-to-gas ratio.

(3) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded and report these exceedances as specified in § 65.166(f)(1). The parameter boundaries are established pursuant to § 65.148(c)(2) (incinerator monitoring), § 65.149(c)(2) (boiler and process heater monitoring), § 65.154(c)(2) (halogen reduction device monitoring), or § 65.155(c)(2) (other control device monitoring), as applicable.

(c) *Monitoring records for recovery devices on Group 2A process vents and for absorbers, condensers, carbon adsorbers, or other noncombustion systems used as control devices.* (1) Each owner or operator using a recovery device to achieve and maintain a TRE index value greater than 1.0 but less than 4.0 or using an absorber, condenser, carbon adsorber, or other noncombustion system as a control device shall keep readily accessible, continuous records, as specified in § 65.161(a), of the equipment operating parameters specified to be monitored under § 65.150(c) (absorber monitoring), § 65.151(c) (condenser monitoring), § 65.152(c) (carbon adsorber monitoring), § 65.153(c) (recovery device monitoring) or § 65.155(c) (other control device monitoring), or specified by the Administrator in accordance with paragraph (e) of this section. For transfer racks, continuous records are required while the transfer vent stream is being vented.

(2) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in § 65.161(c)(1). If carbon adsorber regeneration stream flow and carbon bed regeneration temperature are monitored, the records specified in paragraphs (c)(2)(i) and (c)(2)(ii) of this section shall be kept instead of the daily averages and the records shall be reported as specified in § 65.166(f)(2).

(i) Records of total regeneration stream mass or volumetric flow for each carbon-bed regeneration cycle.

(ii) Records of the temperature of the carbon bed after each regeneration and within 15 minutes of completing any cooling cycle.

(3) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded and report these exceedances as specified in § 65.166(f)(1). The parameter boundaries are established pursuant to § 65.150(c)(2) (absorber monitoring), § 65.151(c)(2) (condenser monitoring), § 65.152(c)(2) (carbon adsorber monitoring), or § 65.155(c)(2) (other control device monitoring), as applicable.

(d) *Alternatives to the continuous operating parameter monitoring and recordkeeping provisions.* An owner or operator may request approval to use alternatives to the continuous operating parameter monitoring and recordkeeping provisions listed in §§ 65.148(c), 65.149(c), 65.150(c), 65.151(c), 65.152(c), 65.153(c), 65.154(c), 65.160, and paragraphs (b) and (c) of this section.

(1) Requests shall be included in the operating permit application or as otherwise specified by the permitting authority and shall contain the information specified in paragraphs (d)(3) through (d)(5) of this section, as applicable.

(2) The provisions in § 65.7(c) of subpart A of this part shall govern the review and approval of requests.

(3) An owner or operator of a source that does not have an automated monitoring and recording system capable of measuring parameter values at least once every 15 minutes and generating continuous records may request approval to use a nonautomated system with less frequent monitoring.

(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 values shall be calculated from these hourly values and recorded.

(ii) The request shall contain the information specified in paragraphs (d)(3)(ii)(A) through (d)(3)(ii)(D) of this section:

(A) A description of the planned monitoring and recordkeeping system;

(B) Documentation that the source does not have an automated monitoring and recording system capable of meeting the specified requirements;

(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 device operating conditions considering typical variability of the specific process and control device operating parameter being monitored.

(4) 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.

(i) The requested system shall be designed to perform the functions specified in paragraphs (d)(4)(i)(A) through (d)(4)(i)(E) of this section.

(A) Measure the operating parameter value at least once every 15 minutes.

(B) Record at least four 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) Compute daily average values of the monitored operating parameter based on recorded data. If the daily average is not an excursion as defined in § 65.161(e)(2)(iv), 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 description of the monitoring system and data compression recording system, including the criteria used to determine which monitored values are recorded and retained, the method for calculating averages, and a demonstration that the system meets all criteria in paragraph (d)(4)(i) of this section.

(5) An owner or operator may request approval to use other alternative monitoring and recordkeeping systems as specified in § 65.7(b) of subpart A of this part. The application shall contain a description of the proposed alternative system. In addition, the application shall include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the regulated source using the required method.

(e) *Monitoring a different parameter than those listed.* The owner or operator who has been directed by § 65.154(c)(2) or § 65.155(c)(1) to set monitoring parameters or who requests as allowed by § 65.156(e) approval to monitor a different parameter than those listed in § 65.148(c), § 65.149(c), § 65.150(c), § 65.151(c), § 65.152(c), § 65.153(c), § 65.154(c), § 65.160, or paragraphs (b) or (c) of this section shall submit the information specified in paragraphs (e)(1) through (e)(3) of this section with the operating permit application or as otherwise specified by the permitting authority.

(1) A description of the parameter(s) to be monitored to ensure the process, control technology, or pollution prevention measure is operated in conformance with its design and achieves the specified emission limit, percent reduction, or nominal efficiency, and an explanation of the criteria used to select the parameter(s).

(2) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device, the schedule for this demonstration, and a statement that the owner or operator will establish a range for the monitored parameter as part of the Initial Compliance Status Report required in § 65.5(d) of subpart A of this part unless this information has already been included in the operating permit application or previously established under a referencing subpart.

The frequency and content of monitoring, recording, and reporting if monitoring and recording is not continuous, or if reports of daily average values when the monitored parameter value is outside the range established in the operating permit or Initial Compliance Status Report will not be included in Periodic Reports as specified in § 65.166(e). The rationale for the proposed monitoring, recording, and reporting system shall be included.

§ 65.163 Other records.

(a) *Closed vent system records.* For closed vent systems, the owner or operator shall record the information specified in paragraphs (a)(1) through (a)(4) of this section, as applicable.

(1) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall keep a record of the information specified in either paragraph (a)(1)(i) or (a)(1)(ii) of this section, as applicable. The information shall be reported as specified in § 65.166(b).

(i) Hourly records of whether the flow indicator specified under § 65.143(a)(3)(i) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.

(ii) Where a seal mechanism is used to comply with § 65.143(a)(3)(ii), hourly records of flow are not required. In such cases, the owner or operator shall record that 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 valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

(2) For closed vent systems collecting regulated material from a storage vessel, transfer rack, or equipment leak, the owner or operator shall record the identification of all parts of the closed vent system that are designated as unsafe or difficult to inspect pursuant to § 65.143(b)(2) or (b)(3), an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment as required by § 65.143(b)(2)(ii) or (b)(3)(ii).

(3) For a closed vent system collecting regulated material from a storage vessel, transfer rack, or equipment leaks, when a leak is detected as specified in § 65.143(d)(1), the information specified in paragraphs (a)(3)(i) through (a)(3)(vi) of this section shall be recorded. The data shall be reported as specified in § 65.166(b)(1).

(i) The instrument and the equipment identification number and the operator name, initials, or identification number.

(ii) The date the leak was detected and the date of the first attempt to repair the leak.

(iii) The date of successful repair of the leak.

(iv) The maximum instrument reading measured by the procedures in § 65.143(c) after the leak is successfully repaired or determined to be nonrepairable.

(v) ''Repair delayed'' and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(vi) Copies of the periodic reports if records are not maintained on a computerized database capable of generating summary reports from the records.

(4) For each instrumental or visual inspection conducted in accordance with § 65.143(b)(1) for closed vent systems collecting regulated material from a storage vessel, transfer rack, or equipment leaks during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(b) *Storage vessel and transfer rack records.* For storage vessels, an owner or operator shall keep readily accessible records of the information specified in paragraphs (b)(1) through (b)(3) of this section, as applicable. For low-throughput transfer racks, an owner or operator shall keep readily accessible records of the information specified in paragraph (b)(1).

(1) A record of the measured values of the parameters monitored in accordance with § 65.145(c)(2) and report in the periodic report as specified in § 65.166(e), if applicable.

(2) A record of the planned routine maintenance performed on the control system during which the control system does not meet the applicable specifications of § 65.143(a), § 65.145(a), or § 65.147(a), as applicable, due to the planned routine maintenance. Such a record shall include the information specified in paragraphs (b)(2)(i) through (b)(2)(iii) of this section. This information shall be submitted in the periodic reports as specified in § 65.166(d)(1).

(i) The first time of day and date the requirements of § 65.143(a), § 65.145(a), or § 65.147(a), as applicable, were not met at the beginning of the planned routine maintenance.

(ii) The first time of day and date the requirements of § 65.143(a), § 65.145(a), or § 65.147(a), as applicable, were met at the conclusion of the planned routine maintenance.

(iii) A description of the type of maintenance performed.

(3) *Bypass records for storage vessel emissions routed to a process or fuel gas system.* An owner or operator who uses the bypass provisions of § 65.144(a)(2) shall keep in a readily accessible location the records specified in paragraphs (b)(3)(i) through (b)(3)(iii) of this section.

(i) The reason it was necessary to bypass the process equipment or fuel gas system;

(ii) The duration of the period when the process equipment or fuel gas system was bypassed;

(iii) Documentation or certification of compliance with the applicable provisions of § 65.42(b)(6)(i) through (b)(6)(iii).

(c) *Regulated source and control equipment startup, shutdown and malfunction records.* (1) Records of the occurrence and duration of each startup, shutdown, and malfunction of process equipment or of air pollution control equipment used to comply with this part during which excess emissions (as defined in § 65.3(a)(4) of subpart A of this part) occur.

(2) For each startup, shutdown, and malfunction during which excess emissions occur, records whether the procedures specified in the source's startup, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a startup, shutdown, and malfunction plan includes procedures for routing control device emissions to a backup control device (for example, the incinerator for a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records must 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 startup, shutdown, and malfunction plan for the event.

(3) Records of startup, shutdown, and malfunction and continuous monitoring system calibration and maintenance are not required if they pertain solely to Group 2A process vents.

(d) *Equipment leak records.* The owner or operator shall maintain records of the information specified in paragraphs (d)(1) and (d)(2) of this section for closed vent systems and control devices subject to the provisions of subpart F of this part. The owner or operator shall meet the record retention requirements of § 65.4 of subpart A of this part, except the records specified in paragraph (d)(1) of this section shall be kept as long as the equipment is in operation.

(1) The design specifications and performance demonstrations specified in paragraphs (d)(1)(i) through (d)(1)(iii) of this section.

(i) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams.

(ii) The dates and descriptions of any changes in the design specifications.

(iii) A description of the parameter or parameters monitored as required in § 65.146(c), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(2) Records of operation of closed vent systems and control devices, as specified in paragraphs (d)(2)(i) through (d)(2)(iii) of this section.

(i) Dates and durations when the closed vent systems and control devices required in § 65.115(b) of subpart F of this part are not operated as designed as indicated by the monitored parameters, including periods when a flare flame or at least one pilot flame is not present.

(ii) Dates and durations during which the monitoring system or monitoring device is inoperative.

(iii) Dates and durations of startups and shutdowns of control devices required in § 65.115(b) of subpart F of this part.

(e) *Records of monitored parameters outside of range.* The owner or operator shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Initial Compliance Status Report in accordance with § 65.165(b). This information shall be reported in the periodic report as specified in § 65.166(e).

§ 65.164 Performance test and flare compliance determination notifications and reports.

(a) *Performance test and flare compliance determination reports.* Performance test reports and flare compliance determination reports shall be submitted as specified in paragraphs (a)(1) through (a)(3) of this section.

(1) For performance tests or flare compliance determinations, the Initial Compliance Status Report or report required by paragraph (b)(2) of this section shall include one complete test report as specified in paragraph (a)(2) of this section for each test method used for a particular kind of emission point

and other applicable information specified in paragraph (a)(3) of this section. For additional tests performed for the same kind of emission point using the same method, the results and any other information required in applicable sections of this subpart or in other subparts of this part shall be submitted, but a complete test report is not required.

(2) 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.

(3) The performance test or flare compliance determination report shall also include the information specified in paragraphs (a)(3)(i) through (a)(3)(iii) of this section, as applicable.

(i) For flare compliance determinations, the owner or operator shall submit the records specified in § 65.159(b).

(ii) For nonflare combustion device and halogen reduction device performance tests as required under § 65.148(b), § 65.149(b), § 65.150(b), § 65.151(b), § 65.152(b), § 65.154(b), or § 65.155(b), the owner or operator shall submit the applicable records specified in § 65.160(b).

(iii) For Group 2A process vents, the owner or operator shall submit the records specified in § 65.160(c), as applicable.

(b) *Other notifications and reports.* (1) The owner or operator shall notify the Administrator of the intention to conduct a performance test at least 30 calendar days before the performance test is scheduled to allow the Administrator the opportunity to have an observer present. If after 30 day's notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test the owner or operator of an affected facility shall notify the Administrator as soon as possible of any delay in the original test date. The owner or operator shall provide at least 7 days prior notice of the rescheduled date of the performance test or arrange a rescheduled date with the Administrator by mutual agreement.

(2) Unless specified differently in this subpart or another subpart of this part, performance test and flare compliance determination reports not submitted as part of an Initial Compliance Status Report shall be submitted to the Administrator within 60 days of completing the test or determination.

(3) Any application for a waiver of an initial performance test or flare compliance determination as allowed by § 65.157(b)(2), shall be submitted no later than 90 calendar days before the performance test or flare compliance determination is required. The application for a waiver shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the source performing the test.

§ 65.165 Initial Compliance Status Reports.

(a) An owner or operator who elects to comply with § 65.144 by routing emissions from a storage vessel or transfer rack to a process or to a fuel gas system shall submit as part of the Initial Compliance Status Report the information specified in paragraphs (a)(1) and (a)(2) or (a)(3) of this section, as applicable.

(1) If storage vessel emissions are routed to a process, the owner or operator shall submit the information specified in § 65.144(b)(3).

(2) As specified in § 65.144(c) if storage vessel emissions are routed to a fuel gas system, the owner or operator shall submit a statement that the emission stream is connected to a fuel gas system.

(3) As specified in § 65.144(c) report that the transfer rack emission stream is being routed to a fuel gas system or process, when complying with the requirements of § 65.83(a)(4) of subpart E of this part.

(b) An owner or operator who elects to comply with § 65.145 by routing emissions from a storage vessel or low-throughput transfer rack to a nonflare control device shall submit with the Initial Compliance Status Report required by § 65.5(d) of subpart A of this part the applicable information specified in paragraphs (b)(1) through (b)(6) of this section. Owners and operators who elect to comply with § 65.145(b)(1)(i) by submitting a design evaluation shall submit the information specified in paragraphs (b)(1) through (b)(4) of this section. Owners and operators who elect to comply with § 65.145(b)(1)(ii) by submitting performance test results shall submit the information specified in paragraphs (b)(1), (b)(2), (b)(4) and (b)(5) of this section. Owners and operators who elect to comply with § 65.145(b)(1)(iii) by submitting performance test results for a shared control device shall submit the information specified in paragraph (b)(6) of this section.

(1) 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 (for example, when the liquid level in the storage vessel is being raised). If continuous records are specified, indicate whether the provisions of § 65.166(f) apply.

(2) The operating range for each monitoring parameter identified in the monitoring plan required by § 65.145(c)(1). The specified operating range shall represent the conditions for which the control device is being properly operated and maintained.

(3) The documentation specified in § 65.145(b)(1)(i), if the owner or operator elects to prepare a design evaluation.

(4) The provisions of § 65.166(f) do not apply to any low-throughput transfer rack for which the owner or operator has elected to comply with § 65.145 or to any storage vessel for which the owner or operator is not required to keep continuous records, as specified by the applicable monitoring plan established under § 65.145(c)(1) and (c)(2). If continuous records are required, the owner or operator shall specify in the monitoring plan whether the provisions of § 65.166(f) apply.

(5) A summary of the results of the performance test described in § 65.145(b)(1)(ii) or (b)(1)(iii), as applicable. If a performance test is conducted as provided in § 65.145(b)(1)(ii), submit the results of the performance test, including the information specified in § 65.164(a)(1) and (a)(2).

(6) Identification of the storage vessel or transfer rack and control device for which the performance test will be submitted, and identification of the emission point(s), if any, that share the control device with the storage vessel or transfer rack and for which the performance test will be conducted.

(c) The owner or operator shall submit as part of the Initial Compliance Status Report the operating range for each monitoring parameter identified for each control, recovery, or halogen reduction device as determined in §§ 65.148(c)(2), 65.149(c)(2), 65.150(c)(2), 65.151(c)(2), 65.152(c)(2), 65.153(c)(5), 65.154(c)(3), and 65.155(c)(2). The specified operating range shall represent the conditions for which the control, recovery, or halogen reduction device is being properly operated and maintained. This report

shall include the information in paragraphs (c)(1) through (c)(3) of this section, as applicable, unless the range and the operating day definition have been established in the operating permit.

(1) The specific range of the monitored parameter(s) for each emission point;

(2) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range indicates proper operation of the control, recovery, or halogen reduction device, as specified in paragraph (c)(2)(i), (c)(2)(ii), or (c)(2)(iii) of this section, as applicable.

(i) If a performance test or TRE index value determination is required by this subpart or another subpart of this part for a control, recovery or halogen removal device, the range shall be based on the parameter values measured during the TRE index value determination or performance test and may be supplemented by engineering assessments and/or manufacturer's recommendations. TRE index value determinations and performance testing is not required to be conducted over the entire range of permitted parameter values.

(ii) If a performance test or TRE index value determination is not required by this subpart or other subparts of this part for a control, recovery, or halogen reduction device, the range may be based solely on engineering assessments and/or manufacturer's recommendations.

(iii) The range may be based on ranges or limits previously established under a referencing subpart.

(3) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(d) *Halogen reduction device.* The owner or operator shall submit as part of the Initial Compliance Status Report the information recorded pursuant to § 65.160(d).

(e) *Alternative recordkeeping.* The owner or operator shall notify the administrator in the Initial Compliance Status Report if the alternative recordkeeping provisions of § 65.161(e)(1) are being implemented. If the Initial Compliance Status Report has been submitted, the notification must be in the periodic report submitted immediately preceding implementation of the alternative, as provided in § 65.166(f)(4).

§ 65.166 Periodic reports.

(a) Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this section and in other subparts of this part, including reports of periods when monitored parameters are outside their established ranges.

(b) For closed vent systems subject to the requirements of § 65.143, the owner or operator shall submit as part of the periodic report the information specified in paragraphs (b)(1) through (b)(3) of this section, as applicable.

(1) The information recorded in § 65.163 (a)(3)(ii) through (a)(3)(v);

(2) Reports of the times of all periods recorded under § 65.163(a)(1)(i) when the vent stream is diverted from the control device through a bypass line; and

(3) Reports of all times recorded under § 65.163(a)(1)(ii) when maintenance is performed on car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.

(c) For flares subject to this subpart, report all periods when all pilot flames were absent or the flare flame was absent as recorded in § 65.159(d)(1).

(d) For storage vessels, the owner or operator shall include in each periodic report required the information specified in paragraphs (d)(1) through (d)(3) of this section.

(1) For the 6-month period covered by the periodic report, the information recorded in § 65.163(b)(2)(i) through (b)(2)(iii).

(2) For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the requirements of § 65.143(a), § 65.145(a), or § 65.147(a) due to planned routine maintenance.

(3) A description of the planned routine maintenance that is anticipated to be performed for the control system during the next 6-month periodic reporting period when the control system is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.

(e) If a control device other than a flare is used to control emissions from storage vessels or low-throughput transfer racks, the periodic report shall identify and state the cause for each occurrence when the monitored parameters were outside of the parameter ranges documented in the Initial Compliance Status Report in accordance with § 65.165(b).

(f) For process vents and transfer racks (except low-throughput transfer racks), periodic reports shall include the information specified in paragraphs (f)(1) through (f)(4).

(1) Periodic reports shall include the daily average values of monitored parameters, calculated as specified in § 65.161(c)(1) for any days when the daily average value is outside the bounds as specified in § 65.162(b)(3) or (c)(3), or the data availability requirements defined in § 65.156(d)(1) are not met, whether these excursions are excused or unexcused excursions. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified.

(2) Report all carbon-bed regeneration cycles during which the parameters recorded under § 65.162(c)(2) were outside the ranges established in the Initial Compliance Status Report or in the operating permit.

(3) The provisions of paragraphs (f)(1) and (f)(2) of this section do not apply to any low-throughput transfer rack for which the owner or operator has elected to comply with § 65.145 or to any storage vessel for which the owner or operator is not required, by the applicable monitoring plan established under § 65.165(c)(1) and (c)(2) to keep continuous records. If continuous records are required, the owner or operator shall specify in the monitoring plan whether the provisions of paragraphs (f)(1) and (f)(2) of this section apply.

(4) If the owner or operator has chosen to use the alternative recordkeeping provisions of § 65.161(e)(1), and has not notified the Administrator in the Initial Compliance Status Report that the alternative recordkeeping provisions are being implemented as provided in § 65.165(e), the owner or operator shall notify the Administrator in the periodic report submitted immediately proceeding implementation of the alternative.

§ 65.167 Other reports.

(a) *Replacing an existing control or recovery device.* As specified in § 65.147(b)(2), § 65.148(b)(3), § 65.149(b)(3), § 65.150(b)(2), § 65.151(b)(2), § 65.152(b)(2), or § 65.153(b)(2), if an owner or operator at a facility not required to obtain a title V permit elects at a later date to use a different control or recovery device, then the Administrator shall be notified by the owner or operator before implementing the change. This notification may be included in the

facility's periodic reporting and shall include a description of any changes made to the closed vent system.

(b) *Startup, shutdown, and malfunction periodic reports.* Startup, shutdown, and malfunction periodic reports shall be submitted as required in § 65.6(c) of subpart A of this part.

§§ 65.168–65.169 [Reserved]

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