

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 63**

[EPA-HQ-OAR-2011-0435; FRL-9906-34-OA]

RIN 2060-AR02

**National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins; Pesticide Active Ingredient Production; and Polyether Polyols Production****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Final rule.

**SUMMARY:** This action finalizes the residual risk and technology review conducted for nine source categories regulated under the National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins; Pesticide Active Ingredient Production; and Polyether Polyols Production. Today's action promulgates amendments concerning the following: Residual risk reviews; technology reviews; emissions during periods of startup, shutdown and malfunction; standards for previously unregulated hazardous air pollutant emission sources; revisions to require monitoring of pressure relief devices that release to the atmosphere; and electronic reporting of performance test results. This action also lifts the stay of requirements for process contact cooling towers at existing sources in one Group IV Polymers and Resins subcategory, issued on February 23, 2001. The revisions to the final rules maintain the level of environmental protection or emissions control on sources regulated by these rules.

**DATES:** This final action is effective on March 27, 2014. The incorporation by reference of certain publications listed in this final rule was approved by the Director of the Federal Register as of March 27, 2014.

**ADDRESSES:** The EPA has established a docket for this rulemaking under Docket ID No. EPA-HQ-OAR-2011-0435. All documents in the docket are listed in the <http://www.regulations.gov> index.

Although listed in the index, some information is not publicly available, e.g., confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available either electronically in <http://>

[www.regulations.gov](http://www.regulations.gov) or in hard copy at the EPA Docket Center, William Jefferson Clinton (WJC) West Building, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** For questions about these final rule amendments, contact Mr. Nick Parsons, Sector Policies and Programs Division (E143-01), Office of Air Quality Planning and Standards (OAQPS), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5372; fax number: (919) 541-0246; email address: [parsons.nick@epa.gov](mailto:parsons.nick@epa.gov). For specific information regarding the risk modeling methodology, contact Ms. Darcie Smith, Health and Environmental Impacts Division (C159-02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-2076; fax number: (919) 541-0840; email address: [smith.darcie@epa.gov](mailto:smith.darcie@epa.gov). For information about the applicability of these three NESHAP to a particular entity, contact Ms. Tavera Culpepper, Office of Enforcement and Compliance Assurance (OECA), U.S. Environmental Protection Agency, Washington, DC 20004; telephone number: (202) 564-0902; email address: [culpepper.tavera@epa.gov](mailto:culpepper.tavera@epa.gov).

**SUPPLEMENTARY INFORMATION:**

*Acronyms and Abbreviations.* Several acronyms and terms used to describe industrial processes, data inventories and risk modeling are included in this final action. While this may not be an exhaustive list, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined here:

ABS Acrylonitrile Butadiene Styrene  
 AWP alternative work practice  
 BAAQMD Bay Area Air Quality Management District  
 CAA Clean Air Act  
 CBI confidential business information  
 CDX Central Data Exchange  
 CEDRI Compliance and Emissions Data Reporting Interface  
 CFR Code of Federal Regulations  
 EPA Environmental Protection Agency  
 ERT Electronic Reporting Tool  
 FR Federal Register  
 HAP hazardous air pollutants  
 HI hazard index  
 HON National Emission Standards for Organic Hazardous Air Pollutants From the

Synthetic Organic Chemical Manufacturing Industry  
 HQ hazard quotient  
 ICR Information Collection Request  
 LDAR leak detection and repair  
 MABS Methyl Methacrylate Acrylonitrile Butadiene Styrene  
 MACT maximum achievable control technology  
 MACT Code Code within the NEI used to identify processes included in a source category  
 MBS Methyl Methacrylate Butadiene Styrene  
 MIR maximum individual risk  
 NAICS North American Industry Classification System  
 NEI National Emissions Inventory  
 NESHAP National Emission Standards for Hazardous Air Pollutants  
 NRDC Natural Resources Defense Council  
 NTTAA National Technology Transfer and Advancement Act  
 OAQPS Office of Air Quality Planning and Standards  
 OECA Office of Enforcement and Compliance Assurance  
 OGI optical gas imaging  
 OMB Office of Management and Budget  
 P&R IV Group IV Polymers and Resins  
 PAI Pesticide Active Ingredient  
 PCCT process contact cooling tower  
 PEPO Polyether Polyols  
 PET Poly (Ethylene Terephthalate)  
 ppm parts per million  
 PRD pressure relief device  
 PS Polystyrene  
 RFA Regulatory Flexibility Act  
 RTR residual risk and technology review  
 SAN Styrene Acrylonitrile  
 SOCOMI Synthetic Organic Chemical Manufacturing Industry  
 SSM startup, shutdown and malfunction  
 TPA Terephthalic Acid  
 tpy tons per year  
 TTN Technology Transfer Network  
 UMRA Unfunded Mandates Reform Act  
 VOC volatile organic compounds

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A red-line version of the regulatory language that incorporates the final changes in this action is available in the docket for this action (EPA-HQ-OAR-2011-0435).

**I. General Information**

*A. Executive Summary*

**1. Purpose of the Regulatory Action**

On January 9, 2012 (77 FR 1268), the EPA proposed amendments to three national emission standards for hazardous air pollutants (NESHAP): Group IV Polymers and Resins (P&R IV); Pesticide Active Ingredient Production (PAI); and Polyether Polyols Production (PEPO). This action presents the results and final decisions based on the EPA’s review of these three NESHAP. Specifically, pursuant to the Clean Air Act (CAA), the EPA has completed residual risk and technology reviews (RTRs) for nine source categories covered by three separate regulations. Significant public comments and our responses are summarized in this preamble. A summary of the public comments on the proposal not presented in the preamble, and the EPA’s responses to those comments, is available in the docket for this action (EPA-HQ-OAR-2011-0435).

Section 112(d)(6) of the CAA requires the EPA to review these regulations (i.e., NESHAP) and revise them as necessary (taking into account developments in practices, processes and control technologies) no less frequently than every 8 years. Section 112(f)(2) of the CAA requires the EPA to assess the remaining risks due to emissions of hazardous air pollutants (HAP) from these source categories and determine whether the emission standards provide an ample margin of safety to protect public health within 8 years of promulgation of the original standards.

The amendments also address the following: Emissions during periods of startup, shutdown and malfunction; standards for previously unregulated HAP emission sources; revisions to require monitoring of pressure relief devices in organic HAP service that release to the atmosphere; and electronic reporting of performance test results. This action also lifts the stay of requirements for process contact cooling towers at existing sources in one P&R IV subcategory issued on February 23, 2001 (66 FR 11233).

**2. Summary of Major Provisions**

The EPA has determined that no rule amendments are needed for these three NEHSAP based on the RTRs under CAA sections 112(d)(6) and 112(f)(2). However, the EPA is making revisions to all three NESHAP in three areas. First, the EPA is eliminating the exemption for periods of startup, shutdown and malfunction (SSM), so that the emission standards in each rule apply at all times. Second, the EPA is requiring electronic reporting of performance test results. Finally, the EPA is requiring monitoring of pressure relief devices (PRDs) in organic HAP service that release to the atmosphere.

With regard to the NESHAP for P&R IV, the EPA is making revisions in three additional areas. First, the EPA is addressing certain emissions that were not previously regulated. Second, the EPA is providing alternative compliance demonstration methods during periods of startup and shutdown. Third, the EPA is lifting the stay of requirements for process contact cooling towers at existing sources in one P&R IV subcategory.

**3. Costs and Emission Reductions**

Table 1 below summarizes the costs and emission reductions for this action. See section VII of this preamble for further discussion of the costs and impacts.

**TABLE 1—SUMMARY OF THE COSTS AND EMISSION REDUCTIONS FOR THE FINAL GROUP IV POLYMERS AND RESINS, PESTICIDE ACTIVE INGREDIENT PRODUCTION AND POLYETHER POLYOLS PRODUCTION NESHAP AMENDMENTS**

NESHAP	Number of affected plants	Capital costs (\$)	Annualized costs (\$/yr)	Emission reductions (tpy)
NESHAP: Group IV Polymers and Resins .....	31	\$3,800,000	\$566,000	N/A
NESHAP for Pesticide Active Ingredient Production .....	18	1,500,000	222,000	N/A
NESHAP for Polyether Polyols .....	23	1,600,000	242,000	N/A

*B. Does this action apply to me?*

*Regulated Entities.* Table 2 lists categories and entities potentially regulated by this action. Table 2 is not intended to be exhaustive, but rather

provides a guide for readers regarding entities likely to be affected by this final action for the source categories listed. To determine whether your facility would be affected, you should examine the applicability criteria in the

appropriate NESHAP. If you have any questions regarding the applicability of any of these NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

TABLE 2—NESHAP AND INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS FINAL ACTION

	NESHAP and source category	NAICS Code <sup>1</sup>
Group IV Polymers and Resins .....	Acrylic-Butadiene-Styrene Production .....	325211
	Methyl Methacrylate-Acrylonitrile-Butadiene-Styrene Production <sup>2</sup> .	325211
	Methyl Methacrylate-Butadiene-Styrene Production .....	325211
	Nitrile Resins Production <sup>2</sup> .....	325211
	Polyethylene Terephthalate Production .....	325211
	Polystyrene Production .....	325211
	Styrene-Acrylonitrile Production .....	325211
Pesticide Active Ingredient Production		325199, 325320
Polyether Polyols Production		325199

<sup>1</sup> North American Industry Classification System.

<sup>2</sup> There are no longer any operating facilities in either the Methyl Methacrylate-Acrylonitrile-Butadiene-Styrene Production or Nitrile Resins Production source categories, and none are anticipated to begin operation in the future. Therefore, this final rule does not address these source categories.

*C. Where can I get a copy of this document and other related information?*

In addition to being available in the docket, an electronic copy of this final action will be available on the Internet through the Technology Transfer Network (TTN) Web site, a forum for information and technology exchange in various areas of air pollution control. Following signature by the EPA Administrator, the EPA will post a copy of this final action on the TTN's policy and guidance page for newly proposed or promulgated rules at: <http://www.epa.gov/ttn/oarpg/t3pfpr.html>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the final action and key technical documents on the project Web sites: <http://www.epa.gov/ttn/atw/pr4/pr4pg.html>, <http://www.epa.gov/ttn/atw/polyol/polyolpg.html> and <http://www.epa.gov/ttn/atw/pest/pestpg.html>. Information on the overall RTR program is available at the following Web site: <http://www.epa.gov/ttn/atw/rrisk/rtrpg.html>.

*D. Judicial Review*

Under section 307(b)(1) of the CAA, judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by May 27, 2014. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that “[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review.” This section also provides a mechanism for us to convene a proceeding for reconsideration, “[i]f the person raising an objection can demonstrate to the EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule.” Any person seeking to make such a demonstration to us should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, William Jefferson Clinton Federal Building, 1200 Pennsylvania Ave. NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

**II. Background Information for This Final Rule**

Section 112 of the CAA establishes a two-stage regulatory process to address emissions of HAP from stationary sources. In the first stage, after the EPA

has identified categories of sources emitting one or more of the HAP listed in CAA section 112(b), section 112(d) calls for us to promulgate technology-based NESHAP for those sources. “Major sources” are those that emit, or have the potential to emit, any single HAP at a rate of 10 tons per year (tpy) or more, or 25 tpy or more of any combination of HAP. For major sources, these technology-based standards must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements and non-air quality health and environmental impacts) and are commonly referred to as maximum achievable control technology (MACT) standards.

For MACT standards, the statute specifies certain minimum stringency requirements, which are referred to as floor requirements and may not be based on cost considerations. See CAA section 112(d)(3). For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than floors for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). In developing MACT, we must also consider control options that are more stringent than the floor,

under CAA section 112(d)(2). We may establish standards more stringent than the floor, based on the consideration of the cost of achieving the emission reductions, any non-air quality health and environmental impacts and energy requirements. In promulgating MACT standards, CAA section 112(d)(2) directs us to consider the application of measures, processes, methods, systems or techniques that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials or other modifications; enclose systems or processes to eliminate emissions; collect, capture or treat HAP when released from a process, stack, storage or fugitive emissions point; and/or are design, equipment, work practice or operational standards.

In the second stage of the regulatory process, we undertake two different analyses, as required by the CAA: Section 112(d)(6) of the CAA calls for us to review these technology-based standards and to revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less frequently than every 8 years; and within 8 years after promulgation of the technology-based standards, CAA section 112(f) calls for us to evaluate the risk to public health remaining after application of the technology-based standards and to revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety and other relevant factors, an adverse environmental effect. In doing so, the EPA may adopt standards equal to existing MACT standards if the EPA determines that the existing standards are sufficiently protective. *NRDC v. EPA*, 529 F.3d 1077, 1083 (D.C. Cir. 2008).

On January 9, 2012, the EPA published a proposed rule for the PAI, PEPO and P&R IV MACT standards that took into consideration the RTR analyses (77 FR 1268). For these MACT standards, today’s action provides the EPA’s final determinations pursuant to the RTR provisions of CAA section 112. In addition, we are promulgating amendments for each of these NESHAP as follows:

#### *Group IV Polymers and Resins*

- Revisions to address certain emission sources not previously regulated under the standards.
- Revisions to clarify requirements for Precompliance Reports.
- Revisions to requirements related to emissions during periods of SSM.
- Revisions to requirements related to performance test electronic reporting.

- Revisions to allow for alternative compliance determination methods during periods of startup and shutdown.
- Revisions to the requirements related to PRDs.

#### *Pesticide Active Ingredient Production*

- Revisions to the definition of “pesticide active ingredient.”
- Revisions to clarify requirements for Precompliance Plans.
- Revisions to requirements related to emissions during periods of SSM.
- Revisions to requirements related to performance test electronic reporting.
- Clarifications to the provisions for packed-bed scrubbers.
- Revisions to the requirements related to PRDs.

#### *Polyether Polyols Production*

- Revisions to clarify requirements for Precompliance Reports.
- Revisions to requirements related to emissions during periods of SSM.
- Revisions to requirements related to performance test electronic reporting.
- Revisions to the requirements related to PRDs.

Section III of this preamble presents a summary of the final rule amendments for the P&R IV, PAI and PEPO MACT standards.

### **III. Summary of the Final Rule Amendments**

#### *A. What are the final rule amendments for the Group IV Polymers and Resins MACT standards?*

The P&R IV MACT standards apply to major sources and regulate HAP emissions from seven thermoplastics production source categories: Acrylonitrile butadiene styrene (ABS), styrene acrylonitrile (SAN), methyl methacrylate acrylonitrile butadiene styrene (MABS), methyl methacrylate butadiene styrene resin (MBS), polystyrene (PS), poly (ethylene terephthalate) (PET) and nitrile resin.<sup>1</sup> Sources of HAP emissions from thermoplastics production include breathing and withdrawal losses from chemical storage tanks, venting of process vessels, leaks from piping and equipment used to transfer HAP compounds (equipment leaks) and volatilization of HAP from wastewater streams.

Only five of the seven P&R IV source categories have facility operations in the U.S.: ABS, SAN, MBS, PET and PS Production. For these five source

categories, we have determined that the current MACT standards reduce risk to an acceptable level, provide an ample margin of safety to protect public health and prevent adverse environmental effects. Therefore, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).<sup>2</sup> We have also determined that there are no viable developments in HAP emission reduction practices, processes or control technologies to apply to the emission sources in these source categories, considering the technical feasibility, estimated costs, energy implications, non-air environmental impacts and emission reductions of the options identified. Therefore, it is not necessary to revise the MACT standards pursuant to CAA section 112(d)(6).

We are establishing standards at the MACT floor level of control for previously unregulated HAP emissions from equipment leaks and process contact cooling towers (PCCT) in the PET continuous terephthalic acid (TPA) high viscosity multiple end finisher subcategory, which has one facility currently in operation. For equipment leaks, the standards being finalized are work practices that include performing a 2- to 3-hour leak check upon startup following an outage where changes have been made to the facility’s esterification equipment. This leak check is conducted by introducing hot ethylene glycol vapors into the system. Any leaks identified must be repaired by tightening flange bolts before introducing new materials into the process. For PCCT, the standard being finalized is a concentration limit of ethylene glycol in the PCCT at or below 6.0 percent by weight, averaged on a daily basis over a rolling 14-day period of operating days.

We are finalizing changes to the P&R IV MACT standards to eliminate the SSM exemption. Consistent with *Sierra Club v. EPA*, the standards in this rule apply at all times. We have also revised Table 1 to subpart JJJ (the General Provisions applicability table) in several respects. For example, we have eliminated the incorporation of the General Provisions’ requirement that the source develop an SSM plan. We have also eliminated or revised certain recordkeeping and reporting requirements related to the eliminated SSM exemption. The EPA has also made

<sup>1</sup> There are no longer any operating facilities in either the MABS Production or Nitrile Resins Production source categories, and none are anticipated to begin operation in the future. Therefore, this final rule does not address these source categories.

<sup>2</sup> The U.S. Court of Appeals has affirmed this approach of implementing CAA section 112(f)(2)(A): *NRDC v. EPA*, 529 F.3d 1077, 1083 (D.C. Cir. 2008) (“If EPA determines that the existing technology-based standards provide an ‘ample margin of safety,’ then the Agency is free to readopt those standards during the residual risk rulemaking.”).

changes to the rule to remove or modify inappropriate, unnecessary or redundant language in the absence of the SSM exemption. Additionally, we are adding provisions to provide an affirmative defense to civil penalties for violations of emission standards caused by malfunctions, as well as criteria for establishing the affirmative defense.

In establishing the standards in this rule, the EPA has taken into account startup and shutdown periods and is establishing alternative compliance demonstration methods for those affected sources subject to emission limits expressed as mass emissions per mass product produced for continuous process vents. The final rule amendments (40 CFR 63.1315(a)(19) and (b)(2), 40 CFR 63.1316(b)(1)(i)(A), (b)(1)(ii)(A), (b)(2)(i)(A), (b)(2)(ii)(A), and (c)(1)(i), and 40 CFR 63.1318(b)(1) and (c)) allow facilities to demonstrate compliance with the rule by either: (1) Keeping records that establish the raw material feed rate and production rate were both zero; (2) meeting the limit by dividing the emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero; or (3) keeping records that establish the operating parameters of the control device used to comply with the rule were maintained at the level established to meet the emission limit at maximum representative operating conditions. See section VI.B of this preamble for greater detail regarding the commenters' concerns regarding meeting standards for continuous process vents during startup and shutdown periods and our response to those concerns.

We have also added requirements in 40 CFR 63.1331(a)(9) to require monitoring of PRDs in organic HAP service that release to the atmosphere and clarify that pressure releases from such PRDs are prohibited. We have also added requirements in 40 CFR 63.1335(e)(6)(xiii) to require reporting of any PRD releases to the atmosphere with the next periodic report.

We are also requiring the electronic submittal of performance test data to increase the ease and efficiency of data submittal and to improve data accessibility. Specifically, owners or operators of P&R IV facilities are required to submit electronic copies of applicable reports of performance tests to the EPA's WebFIRE database through an electronic emissions test report structure called the Electronic Reporting Tool (ERT). This requirement to submit performance test data electronically to the EPA does not require any additional performance testing, and applies only to

those performance tests conducted using test methods that are supported by the ERT.

We have also clarified in 40 CFR 63.1335(e)(3)(i) the requirements for Precompliance Reports where an initial Precompliance Report is needed after the compliance date for the rule.

#### *B. What are the final rule amendments for the Pesticide Active Ingredient Production MACT standards?*

The PAI manufacturing process consists of the production of active ingredients in insecticides, herbicides, fungicides and related products, which are typically then formulated with inert ingredients to create end-product pesticides for application. The PAI MACT standards apply only to the active ingredient production. Emissions occur from breathing and withdrawal losses from chemical storage tanks, venting of process vessels, leaks from piping and equipment used to transfer HAP compounds (equipment leaks), volatilization of HAP from wastewater streams, evaporation from dryers and dust from bag dumps.

For the PAI source category, we have determined that the current MACT standards reduce risk to an acceptable level, provide an ample margin of safety to protect public health and prevent adverse environmental effects. Therefore, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).<sup>3</sup> We have also determined that there are no viable developments in HAP emission reduction practices, processes or control technologies to apply to the emission sources in this source category, considering the technical feasibility, estimated costs, energy implications, non-air environmental impacts and emission reductions of the options identified. Therefore, it is not necessary to revise the MACT standards pursuant to CAA section 112(d)(6).

We are finalizing changes to the PAI MACT standards to eliminate the SSM exemption. Consistent with *Sierra Club v. EPA*, the standards in this rule apply at all times. We have also revised Table 1 of subpart MMM (the General Provisions applicability table) in several respects. For example, we have eliminated the incorporation of the General Provisions' requirement that the source develop an SSM plan. We have also eliminated or revised certain recordkeeping and reporting requirements related to the eliminated SSM exemption. We have determined that facilities in this source category can meet the applicable emission standards

<sup>3</sup> See footnote 2.

at all times, including periods of startup and shutdown, in compliance with the current MACT standards, and no additional standards are needed to address emissions during these periods. The EPA has also made changes to the rule to remove or modify inappropriate, unnecessary or redundant language in the absence of the SSM exemption. Additionally, we are adding provisions to provide an affirmative defense to civil penalties for violations of emission standards caused by malfunctions, as well as criteria for establishing the affirmative defense.

We have added requirements in 40 CFR 63.1363(b)(4) to require monitoring of PRDs in organic HAP service that release to the atmosphere and clarify that pressure releases from such PRDs are prohibited. We have also added requirements in 40 CFR 63.1363(h)(3)(v) to require reporting of any PRD releases to the atmosphere with the next periodic report.

We are also requiring the electronic submittal of performance test data to increase the ease and efficiency of data submittal and to improve data accessibility. Specifically, owners or operators of PAI facilities are required to submit electronic copies of applicable reports of performance tests to the EPA's WebFIRE database through an electronic emissions test report structure called the ERT. This requirement to submit performance test data electronically to the EPA does not require any additional performance testing, and applies only to those performance tests conducted using test methods that are supported by the ERT.

We have also clarified in 40 CFR 63.1368(e) that sources may submit a Precompliance Plan to request alternative compliance options after the compliance date has passed or construction or preconstruction applications have already been submitted.

In addition, we have added clarifications to the provisions for packed-bed scrubbers in 40 CFR 63.1366(b)(1)(ii). We have also revised the definition for "pesticide active ingredient."

#### *C. What are the final rule amendments for the Polyether Polyols Production MACT standards?*

The PEPO manufacturing process involves the reaction of ethylene oxide, propylene oxide or other cyclic ethers with compounds having one or more reactive hydrogens to form chemical products with repeating ether linkages (i.e., -R-O-R-). These polyether polyols do not have significant uses of their own but are used to make a variety of other

products, such as polyurethane foams, microcellular products, surface coatings, elastomers, fibers, adhesives, sealants, surfactants, lubricants, degreasing agents, hydraulic fluids, cosmetics and pharmaceuticals. The HAP emission sources at PEPO facilities include process vents, storage vessels, equipment leaks and wastewater; and at some facilities, cooling towers or other heat exchangers.

For these PEPO facilities, we have determined that the current MACT standards reduce risk to an acceptable level, provide an ample margin of safety to protect public health and prevent adverse environmental effects. Therefore, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).<sup>4</sup> We have also determined that there are no viable developments in HAP emission reduction practices, processes or control technologies to apply to the emission sources in this source category, considering the technical feasibility, estimated costs, energy implications, non-air environmental impacts and emission reductions of the options identified. Therefore, it is not necessary to revise the MACT standards pursuant to CAA section 112(d)(6).

We are finalizing changes to the PEPO MACT standards to eliminate the SSM exemption. Consistent with *Sierra Club v. EPA*, the standards in this rule apply at all times. We have also revised Table 1 of subpart PPP (the General Provisions applicability table) in several respects. For example, we have eliminated the incorporation of the General Provisions' requirement that the source develop an SSM plan. We have also eliminated or revised certain recordkeeping and reporting requirements related to the eliminated SSM exemption. We have determined that facilities in this source category can meet the applicable emission standards at all times, including periods of startup and shutdown, in compliance with the current MACT standards, and no additional standards are needed to address emissions during these periods. The EPA has also made changes to the rule to remove or modify inappropriate, unnecessary or redundant language in the absence of the SSM exemption. Additionally, we are adding provisions to provide an affirmative defense to civil penalties for violations of emission standards caused by malfunctions, as well as criteria for establishing the affirmative defense.

We have added requirements in 40 CFR 63.1434(c) to require monitoring of PRDs in organic HAP service that

release to the atmosphere, and clarify that pressure releases from such PRDs are prohibited. We have also added requirements in 40 CFR 63.1439(e)(6)(ix) for facilities to report when any PRD in organic HAP service releases to the atmosphere with the next periodic report.

We are also requiring the electronic submittal of performance test data to increase the ease and efficiency of data submittal and to improve data accessibility. Specifically, owners or operators of PEPO facilities are required to submit electronic copies of applicable reports of performance tests to the EPA's WebFIRE database through an electronic emissions test report structure called the ERT. This requirement to submit performance test data electronically to the EPA does not require any additional performance testing, and applies only to those performance tests conducted using test methods that are supported by the ERT.

We have also clarified in 40 CFR 63.1439(e)(4)(i) the requirements for Precompliance Reports where an initial Precompliance Report is needed after the compliance date for the rule.

#### *D. What are the effective and compliance dates of the standards?*

Under CAA section 112(d), for new and existing sources subject to the PAI, PEPO and P&R IV MACT standards, the compliance date for the revised SSM requirements (other than PRD monitoring for existing sources and new sources that commenced construction or reconstruction on or before January 12, 2012) and electronic reporting requirements is the effective date of the promulgated standards, March 27, 2014. We are finalizing these compliance dates because these requirements should be immediately implementable by the facilities upon the next occurrence of a malfunction or a performance test that is required to be submitted to the ERT. Available information suggests that the facilities should already be able to comply with the existing standards during periods of startup and shutdown.

Under CAA section 112(i)(3), for new sources that commenced construction or reconstruction on or before January 12, 2012, and existing sources subject to the PAI, PEPO and P&R IV MACT standards, the compliance date for PRD monitoring is 3 years from the effective date of the promulgated standards, March 27, 2017. This time is needed regardless of whether an owner or operator of a facility chooses to comply with the PRD monitoring provisions by installing PRD release indicator systems and alarms, employing parameter

monitoring, or by routing releases to a control device. This time period will allow facilities to research equipment and vendors, purchase, install, test and properly operate any necessary equipment by the compliance date.

For the existing facility in the PET continuous TPA high viscosity multiple end finisher subcategory subject to the P&R IV MACT standards, the compliance date for the new MACT standards applicable to equipment leaks and PCCTs is the effective date of the promulgated standards, March 27, 2014. We are finalizing this compliance date because the existing facility in this subcategory is already complying with the promulgated standards.

#### **IV. Compliance-Related Issues Common to the NESHAP**

##### *A. How do the rules address startup, shutdown and malfunction?*

In its 2008 decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), *cert. denied*, 130 S. Ct. 1735 (U.S. 2010), the United States Court of Appeals for the District of Columbia Circuit vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM. Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1) holding that under section 302(k) of the CAA, emission standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some section 112 standards apply continuously.

We have eliminated the SSM exemption in these rules. Consistent with *Sierra Club v. EPA*, the standards in all three NESHAP apply at all times. We have also revised the General Provisions applicability tables in all three NESHAP, as applicable, in several respects, as is explained in more detail below. For example, we have eliminated the incorporation of the General Provisions' requirement that sources develop an SSM plan. We have also eliminated and revised certain NESHAP recordkeeping and reporting that is related to the eliminated SSM exemption, as described in detail in the proposed rule and summarized again here.

In establishing the standards in these final rule amendments, the EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not established alternate standards for these periods for the PAI, PEPO and P&R IV MACT standards.

For the P&R IV MACT standards, we received comments from industry that

<sup>4</sup> See footnote 2.

opine that it may not be possible to comply with emission limits at all times in the absence of an exemption for SSM periods. Specifically, the commenters asserted that emission limits expressed as a unit of mass emitted per unit of mass of product created for process vents or destruction efficiency standards could be exceeded during times of startup and shutdown. The commenters asserted this is due to the small amount of product being produced and/or lower rate of HAP emissions and higher rate of supplemental fuel sent to control devices during startup and shutdown periods. The commenters suggested that the EPA establish alternative startup and shutdown work practice standards, where meeting operating parameters could be used to comply with the rule in lieu of the production rate and destruction efficiency standards during startup and shutdown periods. Per the commenters, these operating parameters would be representative of the required level of control at continuous steady-state conditions, or routing to a control device that has been demonstrated to meet the necessary destruction efficiency standards at maximum operating conditions.

The EPA evaluated the commenters' concerns and disagrees that separate standards to address startup and shutdown periods are warranted. We agree that demonstrating compliance with a mass of emissions per mass of product produced limit may be problematic as production approaches zero, however. Therefore, we are establishing alternative compliance demonstration methods for those affected sources subject to emission limits expressed as mass emissions per mass product produced for continuous process vents. The final rule amendments (40 CFR 63.1315(a)(19) and (b)(2), 40 CFR 63.1316(b)(1)(i)(A), (b)(1)(ii)(A), (b)(2)(i)(A), (b)(2)(ii)(A), and (c)(1)(i), and 40 CFR 63.1318(b)(1) and (c)) allow facilities to demonstrate compliance with the rule by either: (1) Keeping records that establish the raw material feed rate and production rate were both zero; (2) meeting the limit by dividing the emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero; or (3) keeping records that establish the operating parameters of the control device used to comply with the rule were maintained at the level established to meet the emission limit at maximum representative operating conditions. See section VI.B of this preamble for greater detail regarding the commenters'

concerns regarding standards for continuous process vents during startup and shutdown periods and our response to those concerns.

Periods of startup, normal operations and shutdown are all predictable and routine aspects of a source's operations. However, by contrast, malfunction is defined as a "sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner . . ." (40 CFR 63.2). The EPA has determined that CAA section 112 does not require that emissions occurring during periods of malfunction be factored into development of CAA section 112 standards. Under CAA section 112, emission standards for new sources must be no less stringent than the level "achieved" by the best controlled similar source and, for existing sources, generally must be no less stringent than the average emission limitation "achieved" by the best-performing 12 percent of sources in the category. There is nothing in CAA section 112 that directs the EPA to consider malfunctions in determining the level "achieved" by the best performing or best controlled sources when setting emission standards. Moreover, while the EPA accounts for variability in setting emission standards consistent with CAA section 112 case law, nothing in that case law requires the EPA to consider malfunctions as part of that analysis. CAA section 112 uses the concept of "best controlled" and "best performing" unit in defining the level of stringency that CAA section 112 performance standards must meet. Applying the concept of "best controlled" or "best performing" to a unit that is malfunctioning presents significant difficulties, as malfunctions are sudden and unexpected events.

Further, accounting for malfunctions would be difficult, if not impossible, given the myriad different types of malfunctions that can occur across all sources in the source categories amended with this action, and the difficulties associated with predicting or accounting for the frequency, degree and duration of various malfunctions that might occur. As such, the performance of units that are malfunctioning is not "reasonably" foreseeable. See, e.g., *Sierra Club v. EPA*, 167 F. 3d 658, 662 (D.C. Cir. 1999) ("[T]he EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency's decision to proceed on the basis of imperfect scientific information, rather than to 'invest the resources to conduct

the perfect study.'"). See also, *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011, 1058 (D.C. Cir. 1978) ("In the nature of things, no general limit, individual permit, or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by 'uncontrollable acts of third parties,' such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation."). In addition, the goal of a best-controlled or best-performing source is to operate in such a way as to avoid malfunctions. Accounting for malfunctions could lead to standards that are significantly less stringent than levels achieved by a well-performing non-malfunctioning source. The EPA's approach to malfunctions is consistent with CAA section 112 and is a reasonable interpretation of the statute.

In the event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. The EPA would also consider whether the source's failure to comply with the CAA section 112(d) standard was, in fact, a result of a "sudden, infrequent, not reasonably preventable" event and was not instead "caused in part by poor maintenance or careless operation." 40 CFR 63.2 (definition of malfunction).

Finally, the EPA recognizes that even equipment that is properly designed and maintained can sometimes fail and that such failure can sometimes cause a violation of the relevant emission standard. See, e.g., *State Implementation Plans: Response to Petition for Rulemaking; Findings of Excess Emissions During Periods of Startup, Shutdown, and Malfunction*; Proposed rule, 78 FR 12460 (February 22, 2013); *State Implementation Plans: Policy Regarding Excessive Emissions During Malfunctions, Startup, and Shutdown* (September 20, 1999); *Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions* (February 15, 1983). The EPA is therefore adding to the final rules an affirmative defense to civil penalties for violations of emission standards that are caused by malfunctions. (See 40 CFR 63.1312,

63.1361 and 63.1423 defining “affirmative defense” to mean, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding). We also have added other regulatory provisions to specify the elements that are necessary to establish this affirmative defense; a source subject to the PAI, PEPO or P&R IV MACT standards must prove by a preponderance of the evidence that it has met all of the elements set forth in 40 CFR 63.1310(k), 63.1360(k) and 63.1420(i). (See 40 CFR 22.24). The added criteria are designed in part to ensure that the affirmative defense is available only where the event that causes a violation of the emission standard meets the narrow definition of malfunction in 40 CFR 63.2 (sudden, infrequent, not reasonably preventable and not caused by poor maintenance and/or careless operation). For example, the final rule amendments provide that, to successfully assert the proposed affirmative defense, the source must prove by a preponderance of evidence that the violation was caused by a sudden, infrequent, and unavoidable failure of air pollution control and process equipment, or a process to operate in a normal or usual manner. The added criteria also are designed to ensure that steps are taken to correct the malfunction, to minimize emissions in accordance with 40 CFR 63.1310(j)(4), 63.1360(e)(4) and 63.1420(h)(4); and to prevent future malfunctions. For example, under the added criteria, the source must prove by a preponderance of the evidence that repairs were made as expeditiously as possible when a violation occurred and that all possible steps were taken to minimize the impact of the violation on ambient air quality, the environment and human health. In any judicial or administrative proceeding, the Administrator may challenge the assertion of the affirmative defense and, if the respondent has not met its burden of proving all of the requirements in the affirmative defense, appropriate penalties may be assessed in accordance with section 113 of the CAA (see also 40 CFR 22.27).

The EPA included in the final rule amendments for the PAI, PEPO and P&R IV source categories an affirmative defense in an attempt to balance a tension, inherent in many types of air regulations, to ensure adequate compliance, while simultaneously recognizing that, despite the most

diligent of efforts, emission standards may be violated under circumstances beyond the control of the source. The EPA must establish emission standards that “limit the quantity, rate, or concentration of emissions of air pollutants on a continuous basis.” CAA section 302(k), 42 U.S.C. 7602(k) (defining “emission limitation” and “emission standard”). See generally, *Sierra Club v. EPA*, 551 F.3d 1019, 1021 (D.C. Cir. 2008). Thus, the EPA is required to ensure that emission standards are continuous. The affirmative defense for malfunction events meets this requirement by ensuring that, even where there is a malfunction, the emission standard is still enforceable through injunctive relief. The United States Court of Appeals for the Fifth Circuit recently upheld the EPA’s view that an affirmative defense provision is consistent with section 113(e) of the CAA. *Luminant Generation Co. LLC v. United States EPA*, 714 F.3d 841 (5th Cir. March 25, 2013) (upholding the EPA’s approval of affirmative defense provisions in a CAA State Implementation Plan). While “continuous” standards are required, there is also case law indicating, in many situations, it is appropriate for the EPA to account for the practical realities of technology. For example, in *Essex Chemical v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973), the DC Circuit acknowledged that, in setting standards under CAA section 111, “variant provisions” such as provisions allowing for upsets during startup, shutdown and equipment malfunction “appear necessary to preserve the reasonableness of the standards as a whole and that the record does not support the ‘never to be exceeded’ standard currently in force.” See, also, *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375 (D.C. Cir. 1973). Though these earlier cases may no longer represent binding precedent in light of the CAA 1977 amendments and intervening case law such as *Sierra Club v. EPA*, they nevertheless support the EPA’s view that a system that incorporates some level of flexibility is reasonable and appropriate. The affirmative defense simply provides for a defense to civil penalties for violations that are proven to be beyond the control of the source. Through the incorporation of an affirmative defense, the EPA has formalized its approach to malfunctions. In a Clean Water Act setting, the Ninth Circuit required this type of formalized approach when regulating “upsets beyond the control of the permit holder.” *Marathon Oil Co. v. EPA*, 564 F.2d 1253, 1272–73 (9th Cir. 1977). See,

also, *Mont. Sulphur & Chem. Co. v. EPA*, 666 F.3d 1174 (9th Cir. 2012) (rejecting industry argument that reliance on the affirmative defense was not adequate). But see, *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011, 1057–58 (D.C. Cir. 1978) (holding that an informal approach is adequate). The final affirmative defense provisions give the EPA the flexibility to both ensure that its emission standards are “continuous,” as required by CAA section 302(k), 42 U.S.C. 7602(k), and account for unplanned upsets and, thus, support the reasonableness of the standard as a whole. The EPA is promulgating the affirmative defense applicable to malfunctions under the delegation of general regulatory authority set out in section 301(a)(1) of the CAA, 42 U.S.C. 7601(a)(1), in order to balance this tension between provisions of the CAA and the practical reality, as case law recognizes, that technology sometimes fails. See generally, *Citizens to Save Spencer County v. U.S. Environmental Protection Agency*, 600 F.2d 844, 873 (D.C. Cir. 1979) (using section 301(a) authority to harmonize inconsistent guidelines related to the implementation of federal preconstruction review requirements).

Refer to the explanations below and sections V and VI of this preamble and the Response to Comments document, available in the docket for this action, for further discussion regarding SSM-related changes made to the PAI, PEPO and P&R IV MACT standards.

#### 1. General Duty

For the PAI MACT standards, we are revising the General Provisions applicability table (Table 1 to Subpart MMM) entry for 40 CFR 63.6(e)(1)(i) by changing the “yes” in the second column to a “no.” Section 63.6(e)(1)(i) describes the general duty to minimize emissions. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. Similarly, for the P&R IV and PEPO MACT standards, we are also removing this requirement at 40 CFR 63.1310(j)(4) and 40 CFR 63.1420(h)(4), respectively. For the P&R IV, PAI and PEPO MACT standards, we are instead adding general duty regulatory text at 40 CFR 63.1310(j)(4), 63.1360(e)(4) and 63.1420(h)(4), respectively, that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption,



there is no need to differentiate between normal operations, startup and shutdown, and malfunction events in describing the general duty. Therefore the language the EPA is promulgating does not include that language from 40 CFR 63.6(e)(1).

For the P&R IV, PAI and PEPO MACT standards, we are also revising the General Provisions applicability table (Table 1 to Subpart JJJ, Table 1 to Subpart MMM, and Table 1 to Subpart PPP, respectively) entry for 40 CFR 63.6(e)(1)(ii) by changing the “yes” in the second column to a “no.” Section 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant with the general duty requirement being added at 40 CFR 63.1310(j)(4), 63.1360(e)(4) and 63.1420(h)(4).

## 2. SSM Plan

For the P&R IV, PAI and PEPO MACT standards, we are revising the General Provisions applicability table (Table 1 to Subpart JJJ, Table 1 to Subpart MMM, and Table 1 to Subpart PPP, respectively) entry for 40 CFR 63.6(e)(3) by changing the “yes” in the second column to a “no.” Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. As noted, the EPA is removing the SSM exemptions. Therefore, affected units will be subject to an emission standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive to plan for and achieve compliance and thus the SSM plan requirements are no longer necessary.

## 3. Compliance With Standards

For the P&R IV, PAI and PEPO MACT standards, we are revising the General Provisions applicability table (Table 1 to Subpart JJJ, Table 1 to Subpart MMM, and Table 1 to Subpart PPP, respectively) entry for 40 CFR 63.6(f)(1) by changing the “yes” in the second column to a “no.” The current language of 40 CFR 63.6(f)(1) exempts sources from non-opacity standards during periods of SSM. As discussed above, the court in *Sierra Club* vacated the exemptions contained in this provision and held that the CAA requires that some section 112 standard apply continuously. Consistent with *Sierra Club*, the EPA is revising standards in this rule to apply at all times.

## 4. Performance Testing

For the P&R IV, PAI and PEPO MACT standards, we are revising the General Provisions applicability table (Table 1 to

Subpart JJJ, Table 1 to Subpart MMM, and Table 1 to Subpart PPP, respectively) entry for 40 CFR 63.7(e)(1) by changing the “yes” in the second column to a “no.” Section 63.7(e)(1) describes performance testing requirements. The EPA is instead adding a performance testing requirement at 40 CFR 63.1333(a), 63.1365(b) and 63.1437(a). The performance testing requirements we are adding differ from the General Provisions performance testing provisions in several respects. The regulatory text does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and language that precluded startup and shutdown periods from being considered “representative” for purposes of performance testing. The revised performance testing provisions do not allow performance testing during periods of startup or shutdown. As in 40 CFR 63.7(e)(1), performance tests conducted under this subpart should not be conducted during malfunctions because conditions during malfunctions are often not representative of normal operating conditions. The EPA is adding language that requires the owner or operator to record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. 40 CFR 63.7(e) requires that the owner or operator make available to the Administrator such records “as may be necessary to determine the condition of the performance test” available to the Administrator upon request, but does not specifically require the information to be recorded. The regulatory text the EPA is adding to this provision builds on that requirement and makes explicit the requirement to record the information.

## 5. Monitoring

For the P&R IV, PAI and PEPO MACT standards, we are revising the General Provisions applicability table (Table 1 to Subpart JJJ, Table 1 to Subpart MMM, and Table 1 to Subpart PPP, respectively) entries for § 63.8(c)(1)(i) and (iii) by changing the “yes” in the second column to a “no.” The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)).

For the PAI MACT standards, we are revising the General Provisions applicability table (Table 1 to Subpart MMM) entry for 40 CFR 63.8(d)(3) by changing the explanation in the third column. The final sentence in 40 CFR 63.8(d)(3) refers to the General Provisions’ SSM plan requirement, which is no longer applicable. The EPA is adding the explanation that the program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2).

## 6. Recordkeeping

For the PAI MACT standards, we are revising the General Provisions applicability table (Table 1 to Subpart MMM) entry for 40 CFR 63.10(c)(15) by changing the “yes” in the second column to a “no.” The EPA is promulgating that 40 CFR 63.10(c)(15) no longer apply. When applicable, the provision allows an owner or operator to use the affected source’s SSM plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA is eliminating this requirement because SSM plans will no longer be required, and therefore 40 CFR 63.10(c)(15) no longer serves any useful purpose for affected units.

## 7. Reporting

For the P&R IV, PAI and PEPO MACT standards, we are revising the General Provisions applicability table (Table 1 to Subpart JJJ, Table 1 to Subpart MMM, and Table 1 to Subpart PPP, respectively) entry for 40 CFR 63.10(d)(5) by changing the “yes” in the second column to a “no.” Section 63.10(d)(5) describes the reporting requirements for startups, shutdowns, and malfunctions. To replace the General Provisions reporting requirement, the EPA is adding reporting requirements to 40 CFR 63.1335(b)(1)(ii), 63.1368(i) and 63.1439(b)(1)(ii). The replacement language differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We are promulgating language that requires sources that fail to meet an applicable standard at any time to report the information concerning such events in the semi-annual periodic report already required under these rules. We are promulgating that the report must contain the number, date, time, duration and cause of such events (including unknown cause, if applicable), a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant

emitted over any emission limit, and a description of the method used to estimate the emissions.

Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The EPA is promulgating this requirement to ensure that there is adequate information to determine compliance, to allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

We will no longer require owners or operators to determine whether actions taken to correct a malfunction are consistent with an SSM plan, because plans will no longer be required. The final amendments therefore eliminate the cross reference to 40 CFR 63.10(d)(5)(i) that contains the description of the previously required SSM report format and submittal schedule from this section. These specifications are no longer necessary because the events will be reported in otherwise required reports with similar format and submittal requirements.

We note that reporting a failure to meet an applicable standard could include malfunction events for which a source may choose to submit documentation to support an assertion of affirmative defense. If a source provides all the material required in 40 CFR 63.1310(k), 63.1360(k) or 63.1420(i) to support an affirmative defense, the source need not submit the same information two times in the same report. While assertion of an affirmative defense is not mandatory and would occur only if a source chooses to take advantage of the affirmative defense, the finalized affirmative defense also requires additional reporting that goes beyond these routine requirements related to a failure to meet an applicable standard for a reason other than a malfunction.

For the P&R IV, PAI and PEPO MACT standards, we are revising the General Provisions applicability table (Table 1 to Subpart JJJ, Table 1 to Subpart MMM, and Table 1 to Subpart PPP, respectively) entry for 40 CFR 63.10(d)(5)(ii) by changing the “yes” in the second column to a “no.” Section 63.10(d)(5)(ii) describes an immediate report for startups, shutdown and malfunctions when a source failed to meet an applicable standard but did not follow the SSM plan. We will no longer require owners or operators to report when actions taken during a startup,

shutdown, or malfunction were not consistent with an SSM plan, because plans will no longer be required.

#### 8. Pressure Relief Devices

The original MACT standards recognized pressure releases from PRDs to be the result of malfunctions. PRDs are designed to remain closed during normal operation and only release as the result of unplanned and/or unpredictable events. A release from a PRD usually occurs during an over pressurization of the system. However, emissions vented directly to the atmosphere by PRDs in organic HAP service contain HAP that are otherwise regulated under the MACT standards that apply to these source categories.

The original MACT standards for these source categories regulated PRDs through equipment leak provisions that applied only during non-release operations. In addition, the rules followed the EPA’s then-practice of exempting SSM events from otherwise applicable emissions standards. Consequently, with “pressure releases” being defined as HAP emitting events that occur during malfunctions, the original MACT standards did not restrict pressure releases from PRDs emitted directly to the atmosphere but instead treated them the same as all malfunctions through the SSM exemption provision.

In *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), the Court determined that the SSM exemption violated the CAA. See section IV.A of this preamble for additional discussion. To ensure these standards are consistent with that decision, the final rule revisions remove the malfunction exemptions in the prior MACT standards. In addition, in order for our treatment of malfunction-caused pressure releases directly to the atmosphere to conform with the reasoning of the Court’s ruling, the final rule adds a provision stating that HAP emissions releases directly to the atmosphere from PRDs in organic HAP service are prohibited.

In the proposal, we proposed to eliminate the SSM exemption from the standards. In addition, we stated that under the proposed revised rule releases to the atmosphere from PRDs would constitute violations of the revised rule. However, although we proposed revised regulatory text to eliminate the SSM exemptions from the rules, we omitted a proposed regulatory provision that would have given effect to the proposed intended prohibition of such PRD releases. In order to give effect to the proposed prohibition, which we are finalizing in this action, we are adding express regulatory language in the final

rule revisions that clarifies our intent that pressure releases from PRDs in organic HAP service to the atmosphere are prohibited. This is a necessary additional revision to give full effect to our elimination of the general exemption for malfunctions, in light of the Court’s reasoning in *Sierra Club*, and is similar to revisions that we have made in other rules in which the SSM exemption has been eliminated (see, e.g., NESHAP for Polyvinyl Chloride and Copolymers Production (77 FR 22848, April 17, 2012)). As with any malfunction event under the revised rules, an owner or operator may assert an affirmative defense against civil penalties for a malfunction causing a prohibited pressure release from a PRD in organic HAP service to the atmosphere.

To address potential releases from PRDs, we are further requiring facility owners or operators subject to these three MACT standards to employ monitoring capable of: (1) Identifying the pressure release; (2) recording the time and duration of each pressure release; and (3) notifying operators immediately that a pressure release is occurring. Owners or operators are required to keep records and report any pressure release and the amount of organic HAP released to the atmosphere with the next periodic report.

Pressure release events from PRDs in organic HAP service to the atmosphere have the potential to emit large quantities of HAP. Where a release occurs, it is important to identify and mitigate it as quickly as possible. We recognize that industry has stated that they believe releases from PRDs sometimes occur in order to protect systems from failures that could endanger worker safety and the systems that the PRDs are designed to protect. We have provided a balanced approach designed to minimize emissions while recognizing that these events may be unavoidable even in a well-designed and maintained system. Therefore, we are requiring that sources monitor PRDs in organic HAP service using a device or monitoring system that is capable of identifying and recording the time and duration of each pressure release and of notifying operators that a release has occurred. For purposes of estimating the costs of this requirement, we assumed that operators would install electronic indicators on each PRD in organic HAP service that vents to the atmosphere to identify and record the time and duration of each pressure release. However, owners or operators could use a range of methods to satisfy these requirements, including the use of a parameter monitoring system that may

already have been in place (e.g., on the process and that is sufficient to notify operators immediately that a release is occurring, as well as recording the time and duration of the release).

Based on our cost assumptions that the most expensive approach will be used, the nationwide capital cost of installing these monitors is \$1.5 million, \$1.6 million and \$3.8 million for the PAI, PEPO and P&R IV source categories, respectively. The total annualized cost of installing and operating these monitors is \$222,000, \$242,000 and \$566,000 for the PAI, PEPO and P&R IV source categories, respectively. For a breakdown of the PAI, PEPO and P&R IV source category costs and other costing information, see the memorandum, *Revised Cost Impacts Associated with the Final Pressure Relief Device Monitoring Requirements for the Pesticide Active Ingredient Production, Polyether Polyols Production, and Group IV Polymers and Resins Source Categories*, available in the docket for this action (EPA-HQ-OAR-2011-0435).

#### *B. What are the requirements for submission of performance test data to the EPA?*

As stated in the proposal preamble (77 FR 1285, January 9, 2012), the EPA is taking a step to increase the ease and efficiency of data submittal and data accessibility. Specifically, the EPA is requiring owners or operators of PAI, PEPO and P&R IV facilities to submit electronic copies of certain required performance test reports.

As mentioned in the preamble of the proposal, data will be collected by direct computer-to-computer electronic transfer using EPA-provided software. As discussed in the proposal, the EPA-provided software is an electronic performance test report tool called the ERT. The ERT will generate an electronic report package that will be submitted to the Compliance and Emissions Data Reporting Interface (CEDRI) and then archived to the EPA's Central Data Exchange (CDX). A description and instructions for use of the ERT can be found at: <http://www.epa.gov/ttn/chief/ert/index.html> and CEDRI can be accessed through the CDX Web site: ([www.epa.gov/cdx](http://www.epa.gov/cdx)).

The requirement to submit performance test data electronically to the EPA does not create any additional performance testing and will apply only to those performance tests conducted using test methods that are supported by the ERT. A listing of the pollutants and test methods supported by the ERT is available at the ERT Web site. The EPA believes, through this approach,

industry will save time in the performance test submittal process. Additionally, this rulemaking benefits industry by cutting back on recordkeeping costs as the performance test reports that are submitted to the EPA using CEDRI are no longer required to be kept in hard copy.

As mentioned in the proposal preamble, state, local and tribal agencies may benefit from more streamlined and accurate review of performance test data that will be available on the EPA WebFIRE database. Additionally, performance test data will become available to the public through WebFIRE. Having such data publicly available enhances transparency and accountability. For a more thorough discussion of electronic reporting of performance tests using direct computer-to-computer electronic transfer and using EPA-provided software, see the discussion in the preamble of the proposal (77 FR 1285-1286, January 9, 2012).

In summary, in addition to supporting regulation development, control strategy development and other air pollution control activities, having an electronic database populated with performance test data will save industry, state, local, tribal agencies and the EPA significant time, money and effort while improving the quality of emission inventories and air quality regulations.

#### **V. Summary of Significant Changes Since Proposal**

##### *A. What changes did we make to the risk assessments for these source categories since proposal?*

Section 112(f)(2) of the CAA requires us to determine whether certain emission standards reduce risk to an acceptable level and, once we have ensured that the risk is acceptable, whether the standards provide an ample margin of safety to protect public health and prevent an adverse environmental effect. First, we determine whether there is an acceptable risk. The EPA generally presumes the risk is acceptable if the maximum individual risk (MIR) of cancer is no higher than 100-in-1 million. The EPA bases its overall judgment of acceptability on the MIR and a series of other health measures and factors. In some cases, these health measures and factors taken together may provide a more realistic description of the magnitude of risk in the exposed population than MIR alone. If the risk is unacceptable, the EPA must require additional controls, without consideration of cost, to ensure an acceptable level of risk. After determining that the level of risk is

acceptable, the EPA evaluates whether the standards provide an ample margin of safety to protect public health by considering costs and economic impacts of controls, technological feasibility and other relevant factors, in addition to those health measures and factors considered to determine acceptability. Considering all of these factors, the EPA ensures that the standard is set at a level that provides an ample margin of safety to protect public health, as required by CAA section 112(f).

At proposal, we conducted risk assessments that provided estimates of the MIR posed by the allowable and actual HAP emissions from each source in a category, the distribution of cancer risks within the exposed populations, cancer incidence, hazard index (HI) for chronic exposures to HAP with noncancer health effects and hazard quotient (HQ) for acute exposures to HAP with non-cancer health effects. We found that the residual risks to public health from all source categories subject to these three MACT standards were acceptable and, further, that the existing standards provided an ample margin of safety to protect public health and no adverse environmental effects were expected as a result of HAP emissions from these source categories. Thus, we proposed that no additional controls would be required to address such risks.

As a result of information received from commenters on the proposal, two additional facilities have been included in two of the P&R IV datasets. In addition, after proposal we asked several states to review the emissions data for the PAI, PEPO and P&R IV facilities in their states. This review resulted in the addition and removal of several facilities across the three MACT standards, as well as changes to numerous emission points in the dataset. More information on the changes made to the dataset as a result of this review can be found in the memorandum, *Emissions Data Used in Residual Risk Modeling: Pesticide Active Ingredient Production, Polyether Polyols Production, and Group IV Polymers and Resins*, available in the docket for the this action (EPA-HQ-OAR-2011-0435). This updated dataset was used in the revised risk assessment for these source categories. A summary of the results of the revised risk assessment is provided below.

For the ABS source category, the MIR decreased from 30- to 20-in-1 million, the annual cancer incidence increased from 0.003 to 0.009 cases per year, the maximum chronic non-cancer TOSHI value increased from 0.2 to 0.3, and the maximum off-site acute HQ value decreased from 2 to 0.9, based on the

REL value for acetaldehyde. Table 3 provides an overall summary of the

revised inhalation risk assessment results for the ABS source category.

TABLE 3—ABS INHALATION RISK ASSESSMENT RESULTS

Number of facilities <sup>1</sup>	Maximum individual cancer risk (in 1 million) <sup>2</sup>		Population at risk ≥ 1-in-1 million	Annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>3</sup>		Maximum off-site acute non-cancer HQ <sup>4</sup>
	Actual emissions level	Allowable emissions level			Actual emissions level	Allowable emissions level	
6 .....	20	20	95,000	0.009	0.3	0.3	HQ <sub>REL</sub> = 0.9 acetaldehyde.

<sup>1</sup> Number of facilities evaluated in the risk analysis.

<sup>2</sup> Maximum individual excess lifetime cancer risk.

<sup>3</sup> Maximum TOSHI. The target organ with the highest TOSHI for the ABS source category is the spleen.

<sup>4</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop an array of HQ values. HQ values shown use the lowest available acute threshold value, which in most cases is the REL. When HQ values exceed 1, we also show HQ values using the next lowest available acute dose-response value.

For the SAN source category, the MIR increased from 0.03- to 0.4-in-1 million, the annual cancer incidence increased from 0.000006 to 0.0003 cases per year, the maximum chronic non-cancer

TOSHI value increased from 0.0002 to 0.003, and the maximum off-site acute HQ value increased from 0.007 to 0.05, based on the REL value for methylene chloride. Table 4 provides an overall

summary of the revised inhalation risk assessment results for the SAN source category.

TABLE 4—SAN INHALATION RISK ASSESSMENT RESULTS

Number of facilities <sup>1</sup>	Maximum individual cancer risk (in 1 million) <sup>2</sup>		Population at risk ≥ 1-in-1 million	Annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>3</sup>		Maximum off-site acute non-cancer HQ <sup>4</sup>
	Actual emissions level	Allowable emissions level			Actual emissions level	Allowable emissions level	
3 .....	0.4	0.4	0	0.0003	0.003	0.003	HQ <sub>REL</sub> = 0.05 methylene chloride.

<sup>1</sup> Number of facilities evaluated in the risk analysis.

<sup>2</sup> Maximum individual excess lifetime cancer risk.

<sup>3</sup> Maximum TOSHI. The target organ with the highest TOSHI for the SAN source category is the respiratory system.

<sup>4</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop an array of HQ values. HQ values shown use the lowest available acute threshold value, which in most cases is the REL. When HQ values exceed 1, we also show HQ values using the next lowest available acute dose-response value.

For the MBS source category, the MIR increased from 0.4- to 1-in-1 million, the annual cancer incidence increased from 0.00003 to 0.00009 cases per year, the

maximum chronic non-cancer TOSHI value increased from 0.007 to 0.02, and the maximum off-site acute HQ value increased from 9 to 10, based on the

ERPG-1 value for ethyl acrylate. Table 5 provides an overall summary of the revised inhalation risk assessment results for the MBS source category.

TABLE 5—MBS INHALATION RISK ASSESSMENT RESULTS

Number of facilities <sup>1</sup>	Maximum individual cancer risk (in 1 million) <sup>2</sup>		Population at risk ≥ 1-in-1 million	Annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>3</sup>		Maximum off-site acute non-cancer HQ <sup>4</sup>
	Actual emissions level	Allowable emissions level			Actual emissions level	Allowable emissions level	
2 .....	1	1	220	0.00009	0.02	0.02	HQ <sub>ERPG-1</sub> = 10 ethyl acrylate.

<sup>1</sup> Number of facilities evaluated in the risk analysis.

<sup>2</sup> Maximum individual excess lifetime cancer risk.

<sup>3</sup> Maximum TOSHI. The target organ with the highest TOSHI for the MBS source category is the reproductive system.

<sup>4</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop an array of HQ values. HQ values shown use the lowest available acute threshold value, which in most cases is the REL. When HQ values exceed 1, we also show HQ values using the next lowest available acute dose-response value.

For the PS source category, the MIR decreased from 2- to 0.08-in-1 million,

the annual cancer incidence decreased from 0.00003 to 0.00001 cases per year,

the maximum chronic non-cancer TOSHI value increased from 0.004 to

0.006, and the maximum off-site acute HQ value stayed the same at 0.3, based on the REL value for styrene. Table 6 provides an overall summary of the revised inhalation risk assessment results for the PS source category.

TABLE 6—PS INHALATION RISK ASSESSMENT RESULTS

Number of facilities <sup>1</sup>	Maximum individual cancer risk (in 1 million) <sup>2</sup>		Population at risk ≥ 1-in-1 million	Annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>3</sup>		Maximum off-site acute non-cancer HQ <sup>4</sup>
	Actual emissions level	Allowable emissions level			Actual emissions level	Allowable emissions level	
10 .....	0.08	0.08	0	0.00001	0.006	0.006	HQ <sub>REL</sub> = 0.3 styrene.

<sup>1</sup> Number of facilities evaluated in the risk analysis.  
<sup>2</sup> Maximum individual excess lifetime cancer risk.  
<sup>3</sup> Maximum TOSHI. The target organ with the highest TOSHI for the PS source category is the neurological system.  
<sup>4</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop an array of HQ values. HQ values shown use the lowest available acute threshold value, which in most cases is the REL. When HQ values exceed 1, we also show HQ values using the next lowest available acute dose-response value.

For the PET source category, the MIR increased from 9- to 10-in-1 million, the annual cancer incidence stayed the same at 0.002 cases per year, the maximum chronic non-cancer TOSHI value decreased from 0.5 to 0.4, and the maximum off-site acute HQ value decreased from 8 to 4, based on the REL value for acetaldehyde. Table 7 provides an overall summary of the revised inhalation risk assessment results for the PET source category.

TABLE 7—PET INHALATION RISK ASSESSMENT RESULTS

Number of facilities <sup>1</sup>	Maximum individual cancer risk (in 1 million) <sup>2</sup>		Population at risk ≥ 1-in-1 million	Annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>3</sup>		Maximum off-site acute non-cancer HQ <sup>4</sup>
	Actual emissions level	Allowable emissions level			Actual emissions level	Allowable emissions level	
13 .....	10	10	2,300	0.002	0.4	0.4	HQ <sub>REL</sub> = 4 acetaldehyde.

<sup>1</sup> Number of facilities evaluated in the risk analysis.  
<sup>2</sup> Maximum individual excess lifetime cancer risk.  
<sup>3</sup> Maximum TOSHI. The target organ with the highest TOSHI for the PET source category is the respiratory system.  
<sup>4</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop an array of HQ values. HQ values shown use the lowest available acute threshold value, which in most cases is the REL. When HQ values exceed 1, we also show HQ values using the next lowest available acute dose-response value.

For the PAI source category, the MIR decreased from 7- to 6-in-1 million, the annual cancer incidence decreased from 0.001 to 0.0006 cases per year, the maximum chronic non-cancer TOSHI stayed the same at 0.7, and the maximum off-site acute HQ value decreased from 8, based on the REL value for ethylene glycol ethyl ether, to 1, based on the REL value for formaldehyde. Table 8 provides an overall summary of the revised inhalation risk assessment results for the PAI source category.

TABLE 8—PAI INHALATION RISK ASSESSMENT RESULTS

Number of facilities <sup>1</sup>	Maximum individual cancer risk (in 1 million) <sup>2</sup>		Population at risk ≥ 1-in-1 million	Annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>3</sup>		Maximum off-site acute non-cancer HQ <sup>4</sup>
	Actual emissions level	Allowable emissions level			Actual emissions level	Allowable emissions level	
18 .....	6	7	370	0.0006	0.7	4	HQ <sub>REL</sub> = 1 formaldehyde.

<sup>1</sup> Number of facilities evaluated in the risk analysis.  
<sup>2</sup> Maximum individual excess lifetime cancer risk.  
<sup>3</sup> Maximum TOSHI. The target organ with the highest TOSHI for the PAI source category is the respiratory system.  
<sup>4</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop an array of HQ values. HQ values shown use the lowest available acute threshold value, which in most cases is the REL. When HQ values exceed 1, we also show HQ values using the next lowest available acute dose-response value.

For the PEPO source category, the MIR stayed the same at 30-in-1 million, the annual cancer incidence stayed the same at 0.02 cases per year, the maximum chronic non-cancer TOSHI value decreased from 0.8 to 0.7, and the maximum off-site acute HQ value decreased from 6 to 4, based on the REL value for acrolein. Table 9 provides an overall summary of the revised inhalation risk assessment results for the PEPO source category.

TABLE 9—PEPO INHALATION RISK ASSESSMENT RESULTS

Number of facilities <sup>1</sup>	Maximum individual cancer risk (in 1 million) <sup>2</sup>		Population at risk ≥ 1-in-1 million	Annual cancer incidence (cases per year)	Maximum chronic non-cancer TOSHI <sup>3</sup>		Maximum off-site acute non-cancer HQ <sup>4</sup>
	Actual emissions level	Allowable emissions level			Actual emissions level	Allowable emissions level	
23 .....	30	30	140,000	0.02	0.7	0.7	HQ <sub>REL</sub> = 4 acrolein.

<sup>1</sup> Number of facilities evaluated in the risk analysis.

<sup>2</sup> Maximum individual excess lifetime cancer risk.

<sup>3</sup> Maximum TOSHI. The target organ with the highest TOSHI for the PEPO source category is the respiratory system.

<sup>4</sup> The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop an array of HQ values. HQ values shown use the lowest available acute threshold value, which in most cases is the REL. When HQ values exceed 1, we also show HQ values using the next lowest available acute dose-response value.

The results of the revised risk assessment did not significantly change the maximum risk levels to the most exposed individual for these source categories and did not affect our determinations regarding risk acceptability and ample margin of safety. The full results of the revised risk assessment for the source categories can be found in the risk assessment documentation available in the docket for this action (EPA–HQ–OAR–2011–0435).

Uncertainty and the potential for bias are inherent in all risk assessments, including those performed for the source categories addressed in these final rules. Although uncertainty exists, we believe that our approach, which used conservative tools and assumptions, ensures that our decisions are health-protective. A discussion of the uncertainties in the emissions datasets, dispersion modeling, inhalation exposure estimates and dose-response relationships is provided in the preamble to the proposed rule. See 77 FR 1280–1282 (January 9, 2012).

*B. What changes did we make to the affirmative defense provisions since proposal?*

We proposed a 2-day notification requirement for asserting an affirmative defense in 40 CFR 63.1310(k) of subpart JJJ, 40 CFR 63.1360(k) of subpart MMM and 40 CFR 63.1420(i) of subpart PPP. Consistent with other recent actions by the EPA (e.g., NESHAP for Polyvinyl Chloride and Copolymers Production (77 FR 22848, April 17, 2012)), we have revised these sections in the final rules to allow an owner or operator of the affected source seeking to assert an affirmative defense, after experiencing an exceedance of its emission limit(s) or a violation of an emission standard during a malfunction, to submit a written report to the Administrator. The owner or operator may submit this report in the first periodic compliance report, deviation report or excess

emissions report otherwise required after the initial occurrence of the violation of the relevant standard. However, if the next report is due less than 45 days after the violation, the affirmative defense report may be included in the next report after that. This change provides sources with sufficient time to demonstrate that they have met the required affirmative defense criteria. In addition, we have revised the affirmative defense provisions to clarify that these provisions are applicable where there have been “violations of emission standards,” rather than “excess emissions,” during malfunctions.

*C. What changes did we make to the PRD provisions since proposal?*

We have clarified in each of the three MACT standards that new affected sources that commenced construction or reconstruction on or before January 12, 2012, and existing affected sources have three years to comply with the PRD monitoring requirements. We proposed that facilities subject to these MACT standards would have to install a release indicator on each PRD in organic HAP service that releases to the atmosphere. In the final rules, we have revised this requirement so that facilities may comply with these requirements using existing parameter monitoring systems that notify operators immediately when a pressure release occurs. In the proposal, we proposed that a release to the atmosphere from a PRD was a violation of the rule. In the final rule, we have clarified that a pressure release to the atmosphere from a PRD in organic HAP service is prohibited.

*D. What changes did we make to the Group IV Polymers and Resins MACT standards since proposal?*

The final rule P&R IV amendments take into account startup and shutdown periods by establishing alternative compliance demonstration methods for meeting standards for continuous

process vents during startup and shutdown periods.

We are also amending 40 CFR 63.14 to add the test methods incorporated by reference for the technical standards we are finalizing for the PCCT at the one Group IV Polymers and Resins facility in the PET continuous TPA high viscosity multiple end finisher subcategory.

*E. What changes did we make to the Pesticide Active Ingredient Production MACT standards since proposal?*

The final rule PAI amendments provide an alternative monitoring option for packed-bed scrubbers that allows the measurement of the liquid-to-gas ratio (according to 40 CFR 63.994(c)) in lieu of the scrubber liquid flow rate or pressure drop.

We are also revising the definition of “pesticide active ingredient” to reflect changes made to EPA Form 3540–16, subsequent to the promulgation of the MACT standards. The revised definition clarifies that PAI materials are identified by product classification codes used to represent PAIs, and are the same codes used in block 19 of the 1999 version of EPA Form 3540–16, the Pesticides Report for Pesticide-Producing Establishment.

*F. What changes did we make to the Polyether Polyols Production MACT standards since proposal?*

The final rule PEPO amendments have not been changed since proposal.

*G. What other changes did we make since proposal?*

We have revised the language of the PEPO and P&R IV MACT standards to require quarterly reporting only when there have been repeat excursions for the same equipment in consecutive semiannual reporting periods. Excursions can result from monitoring parameter levels being outside established ranges or from a lack of sufficient data to determine compliance

with the emission limits. These excursions are considered violations of the standards and must be reported in the semiannual report. While we proposed to remove the one excursion per semiannual reporting period allowance from these subparts, this would result in facilities being required to perform quarterly reporting for the affected source if any point at that affected source experienced an excursion. This would be overly burdensome for both the facility and the reviewing agency and was not the intention of the original MACT standards. To remedy this situation, we are finalizing the removal of the one-excursion-per-semiannual-reporting-period allowance, but revising the reporting requirements to require quarterly reporting only when there have been repeat excursions for the same equipment in consecutive semiannual reporting periods. This will ensure enhanced reporting is carried out only for equipment with potential compliance issues.

For each NESHAP, we have also clarified the requirements for Precompliance Reports/Plans where an initial Precompliance Report/Plan is needed after the compliance date for the rule. Since a Precompliance Report/Plan is only required where certain compliance options are chosen or alternative compliance options are being requested, not all existing sources would have submitted a Precompliance Report/Plan prior to the compliance date and not all new sources would have submitted one with the application for construction or reconstruction. The revisions added today clarify that sources may submit a Precompliance Report/Plan to request alternative compliance options after the compliance date has passed or construction or preconstruction applications have already been submitted.

In addition, we have also made several technical corrections for each NESHAP. These amendments are being finalized to correct inaccuracies and oversights that were previously promulgated.

## VI. Significant Public Comments and Rationale for Changes to the Proposed Rule

We received written comments from 21 commenters during the comment period and three comment letters after the close of the comment period. The following is a summary of the significant comments received and our responses to these comments. The complete list of comments received and our responses to those comments can be

found in the Response to Comments document available in the docket for this action (EPA-HQ-OAR-2011-0435).

For the purposes of this document, the text within the comment summaries was provided by the commenter(s) and represents their opinion(s), regardless of whether the summary specifically indicates that the statement is from a commenter(s) (e.g., “The commenter states” or “The commenters assert”). The comment summaries do not represent the EPA’s opinion unless our response to a comment expressly agrees with all of the comment or the relevant portion of that comment.

### A. Pressure Relief Device Monitoring Requirements

*Comment:* Several commenters stated that the EPA had not provided factual evidence or adequate justification for requiring control of emissions from PRDs. One commenter argued that the EPA provided no data to support the claim that a large number of releases occur and may emit large quantities of HAP, or to support the contention that releases are not being identified. Other commenters stated that the EPA had not conducted this portion of the rulemaking according to the procedures set out by the CAA for the establishment of MACT standards. Commenters added that they did not believe that the EPA has a legal obligation nor the discretion to promulgate the proposed PRD provisions because the PRD monitoring and reporting requirements were not derived from the technology reviews, in response to any residual risks detected, or the D.C. Circuit’s invalidation of the SSM provisions in the 40 CFR Part 63 General Provisions. Some commenters opined that since the MACT standards were established without consideration of PRD emissions, it is inappropriate for the EPA to state that emissions from PRDs violate the MACT standards.

*Response:* Under CAA section 112(d)(2), the EPA must promulgate technology-based standards that reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts), and such standards must contain compliance assurance provisions to make sure that they are practicably enforceable. Nothing in the CAA or its legislative history suggests that the EPA is prohibited from reviewing and revising MACT standards and their compliance assurance provisions, except as part of the CAA section 112(d)(6) or CAA section 112(f) reviews or an action taken in response to a ruling by a court. The amendments being finalized for PRD

releases do not impose new emission standards for which a MACT analysis is required by the CAA. Instead, they prohibit releases to the atmosphere from PRDs in organic HAP service that are no longer appropriate following the 2008 *Sierra Club v. EPA* ruling, and impose additional monitoring requirements to address potential releases.

As noted in a report prepared by the SCAQMD, releases from PRDs occur randomly and the emissions can only be approximated. Based on their analysis of refinery PRD reports of PRD releases from 9 facilities in their district, there were 8 PRD releases from 2003 to 2006 that were estimated to release greater than 2,000 lbs of emissions to the atmosphere, and 8 PRD releases from 2003 to 2006 that were estimated to release between 500 and 2,000 lbs of emissions to the atmosphere.<sup>5</sup> The SCAQMD analysis focuses on volatile organic compound (VOC) emissions (which would also include organic HAP emissions). Additionally, the Texas Commission on Environmental Quality Emission Event Reporting Database is populated with Emission Event Reports from both the refinery and chemical sectors where the reason for the report was due to a PRD release.<sup>6</sup> These final amendments simply prohibit PRD releases to the atmosphere and require that these devices now be monitored to indicate when these releases occur and be reported, so that HAP emissions that may potentially occur from releases can be mitigated as soon as possible. Additionally, the final rule requirement to report PRD releases ensures that these releases will be reported nationally and not just in some states.

An agency generally remains free to revise previously promulgated rules to correct newly identified problems, even in the absence of a remand from a Court. *United Gas Improvement Co. v. Callery Props., Inc.*, 382 U.S. 223, 229 (1966). In light of, and consistent with, the 2008 *Sierra Club v. EPA* ruling, the EPA is eliminating the SSM exemption in the PAI, PEPO and P&R IV MACT standards and requiring that the standards in these rules apply at all times, including during periods of SSM. In addition, in order for our treatment of malfunction-caused pressure releases to the atmosphere to conform with the reasoning of the Court’s ruling, the final rule adds a provision stating that HAP

<sup>5</sup> See “Final Staff Report for Proposed Amended Rule 1173—Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants.” Planning, Rule Development and Area Sources, South Coast Air Quality Management District. May 15, 2007.

<sup>6</sup> See <http://www11.tceq.texas.gov/oce/eer/index.cfm>.

emissions releases to the atmosphere from PRDs in organic HAP service are prohibited. To prohibit these malfunction-caused releases, it is not necessary for us to set an emission standard that is based on a MACT floor or beyond-floor analysis (see section IV.A of this preamble); indeed, the EPA has consistently explained that we are not required to take malfunctions into account in setting standards or to devise standards that apply specifically to malfunction-caused emissions, such as PRD releases that cause HAP emissions *only* during malfunctions. However, based on comments received, we have modified the PRD monitoring provisions in the final rule. The final rule includes detection and pressure release management requirements that can be used by facilities to mitigate emissions during pressure release events from PRDs while allowing owners or operators greater flexibility based on their current equipment and operations. The final rule requires that sources monitor PRDs using a system that is capable of identifying and recording the time and duration of each pressure release and of immediately notifying operators that a release is occurring. As with any malfunction event, an affirmative defense against civil penalties would be available for a PRD release to the atmosphere if the facility can prove the elements of that defense.

*Comment:* Several commenters reported that there are other approaches for monitoring PRDs, including continuous monitoring of process parameters, noting that many companies have process control computer systems that already have alarms to notify the operator of deviations from normal operations and automatically adjust process operations to prevent upsets. One commenter suggested that pressure relief valves with an upstream rupture disc should be considered to have adequate monitoring already because there is pressure monitoring of the space between the two. The commenter also suggested that monitoring of ambient air within the vicinity of a process for leaks be considered a valid alternative, as this would provide reasonable assurance that the opening of a relief device would be noticed.

Another commenter opined that the EPA had not provided any information about the reliability or suitability of the wireless indicators on which the EPA based its PRD monitoring cost estimates. The commenter stated that the wireless indicators assumed in the cost analysis are similar to the "Burst Alert Sensors" used at one of the commenter's facilities. The commenter notes these devices have limited applicability, such

as an 8-inch maximum pipe diameter, and -40 °F to 185 °F temperature range, and the EPA has not provided any data or information on the use or reliability of these devices in chemical plants or the more specific types of facilities in the source categories addressed by the proposed rule. The commenter noted these monitors exhibit a high false alarm rate and issues in areas where freezing occurs.

Commenters also expressed that the EPA provided no information in the proposed rule about which devices and types of data are acceptable for determining the duration of a PRD opening.

*Response:* Based on technological and cost concerns expressed by industry, we have reassessed the proposed requirement to prescribe the use of release indicators and alarms for each PRD. We acknowledge that there are other valid and potentially less costly approaches for monitoring PRDs and determining when a pressure release from a PRD has occurred for the PAI, PEPO and P&R IV source categories. As there are other approaches we believe to be equally effective (and potentially more reliable under certain circumstances for these source categories) as the proposed indicators and alarms, we have added flexibility in the rules. The final rules allow each PRD in organic HAP service to be equipped with a device or system that is capable of identifying and recording the time and duration of each pressure release (e.g., rupture disk indicators, magnetic sensors, motion detectors on the pressure relief valve stem, flow monitors, and pressure monitors) in lieu of prescribing that PRDs be equipped with release indicators and alarms.

*Comment:* Several industry commenters stated that the EPA did not consider the burden of data collection from PRD monitors, operation and maintenance costs or the costs of installing electronic indicators for every pressure relief valve. Commenters also opined that the cost estimates that the EPA used (\$5,000 to \$10,000) for the cost of the proposed PRD monitoring units at proposal were low and provided PRD monitoring unit cost estimates ranging from \$14,000 to \$30,000 per unit. One commenter stated that the costs cited by the EPA are for wireless monitors only and that there may be cases where more expensive wired connections would be necessary. One commenter opined that the EPA's estimate of \$1,409 per PRD monitoring unit was lower than the SCAQMD document cited by the EPA (which includes costs ranging from \$5,000 to \$10,000 per PRD monitoring unit).

A few commenters asserted that the EPA underestimated the number of PRDs that would be subject to PRD monitoring requirements for some facilities and companies. One commenter estimated that one of their facilities had 122 PRDs and one company reported an estimated 300 PRDs for their 2 facilities that would be subject to the proposed MACT standards.

One commenter stated that, based on historical PRD emissions release data from 2009 to 2011 at the facilities of the commenter's company, there was one release event of 25 pounds. The commenter asserted that, considering these emissions data, their estimated cost of the proposed PRD monitoring requirements would be approximately \$73,000/pound emissions released.

*Response:* As noted above, based on comments received at proposal we reassessed both our cost analysis and PRD monitoring requirements. The final rules have been amended to allow each PRD in organic HAP service to be equipped with a device or system that is capable of identifying and recording the time and duration of each pressure release (e.g., rupture disk indicators, magnetic sensors, motion detectors on the pressure relief valve stem, flow monitors, and pressure monitors) in lieu of prescribing that PRDs be equipped with release indicators and alarms.

Although we are adding flexibility to the monitoring options an owner or operator has for PRD releases for these source categories in the final rule amendments, we maintained, for the purposes of costing, that owners and operators would install electronic indicators on each relief device that vents to the atmosphere to identify releases when they occur. We recognize that facility operations and configurations will vary for differing facilities based on the number of PRDs in operation at a given facility and have attempted to address those variances in our revised costs.<sup>7</sup> This would amount to approximately \$1,409 per PRD. We have revised the estimate of PRD system costs based on an estimated cost per PRD monitoring device combined with source-category specific estimates of the number of PRDs. Based on a report prepared by the SCAQMD, the total cost of a PRD monitoring device is estimated

<sup>7</sup> See "Revised Cost Impacts Associated with the Final Pressure Relief Device Monitoring Requirements for the Pesticide Active Ingredient Production, Polyether Polyols Production, and Group IV Polymers and Resins Source Categories." Memorandum from EC/R Incorporated to Nick Parsons, U.S. Environmental Protection Agency, January 31, 2014. (Docket ID No. EPA-HQ-OAR-2011-0435.)



to be in the range of \$5,000 to \$10,000 (2007 dollars).<sup>8</sup> For our analysis, we assumed the PRD monitoring device to cost in the midpoint of the range (\$7,500 [2007 dollars]), and we adjusted that cost to 2012 dollars (\$8,345). Assuming a 10 year equipment life and 7% interest, the annualized PRD monitoring device cost is estimated to be approximately \$1,185. At proposal, as one commenter acknowledges, we adopted an average facility cost of a PRD monitoring system, assuming 134 PRDs, to be \$188,913 based on analyses performed for the proposed standards for the Polyvinyl Chloride and Copolymers source category.<sup>9</sup> Based on PRD data and models that we have developed for the PAI, PEPO and P&R IV source categories, most facility operations subject to these source categories are anticipated to have less than 76 PRDs. Based on this information, we have adjusted our PRD monitoring system costs to range from an estimated \$69,233 to \$112,180 for these source categories, and the annualized monitoring system capital cost estimates per facility range from \$9,800 to \$15,900 for these source categories.<sup>10</sup> Although our proposed and revised costs may be low for some facilities, the costs will likely be an overestimate for other facilities. Additionally, by allowing facilities the option to monitor parameters in order to detect PRD releases, we believe that our revised costs are conservative in that they reflect the upper range of our estimated PRD monitoring system costs per source category and presume that sources will choose to install electronic indicators and alarms versus complying with the rule by using parameter monitoring. However, it is highly likely that many sources will choose to install or use existing parameter monitoring systems (and not electronic indicators and alarms), and the cost of such a system would likely be less than the costs estimated for the use of electronic indicators and alarms.

Cost-effectiveness numbers are estimated to evaluate the benefit of implementing a control measure; the final PRD monitoring requirements, although likely to result in a reduction in HAP emissions from the affected facilities, are being required to ensure continuous compliance with existing

emission standards. Therefore, while we consider the costs of this monitoring technology to be reasonable, a cost-effectiveness analysis that would be appropriate for a new emission standard imposing new control requirements to reduce HAP emissions by an estimable amount was not considered for this monitoring requirement. We have prohibited releases from PRDs because we believe it is inconsistent with the *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008) ruling. We consider PRD releases to be malfunctions and acknowledge these releases do not occur frequently and in specific cases may or may not result in significant releases to the atmosphere.

#### B. Startup and Shutdown Periods

*Comment:* Two commenters requested that the EPA provide a means to demonstrate compliance during startup and shutdown periods, including the establishment of work practices for subpart JJJ. The commenters stated that while emissions during startup and shutdown may not be higher than during normal operations, it may not be possible to demonstrate compliance with the emission limits for these specific periods. The commenters argued that, for units complying with a unit of mass emitted per unit of product produced or destruction efficiency standard, demonstrating compliance is problematic as production approaches zero. One commenter suggested a long averaging time, such as 30 days, be incorporated to resolve this problem. Commenters also suggested that a work practice standard could be established for these periods to require emissions during startup and shutdown be routed to an operating control device that has been demonstrated to achieve the required destruction efficiency or that facilities be allowed to demonstrate compliance by showing that control device operating parameters are maintained at a level that has been demonstrated to meet standards during continuous steady-state conditions.

One commenter asserted that the EPA cannot speculate that facilities can meet the normal operations emissions limitation during periods of startup and shutdown and must conduct a thorough analysis of emissions from the best performing sources during startup and shutdown and base the standards on the results of that analysis.

*Response:* We do not agree with commenters that alternative work practice standards should be established for P&R IV continuous process vents during startup and shutdown periods. The existing rule includes flexible continuous process vent control

compliance options. Current regulations allow owners or operators to comply by meeting a production based limit, reducing emissions by 98 percent in a combustion device or to a concentration of 20 parts per million by volume (ppmv) on a dry basis (whichever is less stringent); combust the emissions in a boiler or process heater with a specified design heat input capacity or by introducing emissions into the flame zone; or combust emissions in a flare meeting specification requirements. Nonetheless, alternative compliance demonstration method options for meeting production-based limits are included in the final rule to address commenters' concerns regarding meeting production-based limits as production approaches zero. The final rule allows owners or operators to demonstrate compliance with continuous process vent production-based limits during startup and shutdown periods by either: (1) Keeping records that establish the raw material feed rate and production rate were both zero; (2) meeting the limit by dividing the emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero; or (3) keeping records that establish the operating parameters of the control device used to comply with the rule were maintained at the level established to meet the emission limit at maximum representative operating conditions. We believe the addition of the alternative compliance demonstration method options for startup and shutdown periods addresses commenters' concerns while meeting the intended emission reduction requirements.

We disagree with the commenter that claimed the EPA should have performed a more thorough analysis of emissions during periods of startup and shutdown prior to proposal, as at that time we did not have information to suggest that sources could not meet the emission standards during these times. It is only as a result of commenter input that the EPA was made aware of potential issues with compliance during periods of startup and shutdown for sources subject to the P&R IV MACT standards, and, as previously stated, we have revised the final rule to account for these periods.

#### C. P&R IV Equipment Leak and PCCT Provisions for Previously-Unregulated Sources

*Comment:* One commenter argued that the EPA does not have the authority to reconsider previously-issued MACT standards. The commenter states that

<sup>8</sup> See footnote 5.

<sup>9</sup> See "Costs and Emission Reductions of the Proposed Standards for the Polyvinyl Chloride and Copolymers (PVC) Production Source Category." Memorandum from Eastern Research Group, Inc. to Jodi Howard, U.S. Environmental Protection Agency. April 13, 2011. (Docket Item No. EPA-HQ-OAR-2002-0037-1002.)

<sup>10</sup> See footnote 7.

the EPA cannot reconsider aspects of previously issued MACT standards unrelated to “development in practices, processes, and control technologies,” under CAA section 112(d)(6). The commenter also states the EPA cannot change its mind about what standards are required to comply with CAA section 112(d)(2) and (3), nor recalculate a floor based on subsequent performance. The commenter adds that reassessing MACT standards and imposing more stringent requirements would also be inconsistent with Congress’s desire for finality evident in the judicial review provisions of CAA section 307(b), which provides that challenges to MACT standards must be raised within 60 days of their promulgation, assuring that regulated entities, the EPA, and the public know what emissions limitations will apply to a source rather than having those limitations be subject to flux. The commenter states that even if the EPA had the authority to change the existing MACT standards, it could not reasonably make the revised standards effective immediately. The commenter notes that CAA section 112(i) allows for a compliance deadline of up to 3 years.

*Response:* In *Medical Waste Institute v. EPA*, 645 F. 3d 420, 425–27 (D.C. Cir. 2011), the D.C. Circuit held that the EPA may permissibly amend prior MACT determinations, including amendments to improperly promulgated floor determinations, using its authority under CAA section 129(a)(2), which is analogous to the authority in CAA section 112(d)(2) and (3). The lack of judicial invalidation on these issues is a distinction without a difference. *National Lime*, 233 F. 3d at 633–34; see also *Medical Waste Institute*, 645 F. 3d at 426 (resetting MACT floor, based on post-compliance data, permissible when originally-established floor was improperly established, and permissibility of the EPA’s action does not turn on whether the prior standard was remanded or vacated). See also our response in section VI.A above. The D.C. Circuit’s decision in *Portland Cement Ass’n v. EPA*, 665 F.3d 177, 189 (D.C. Cir. 2011) confirms the EPA is not constrained by CAA section 112(d)(6) and it may reassess its standards more often, including revising MACT floors pursuant to section 112(d)(2) and (d)(3). The commenter is thus incorrect that the EPA lacks authority to set MACT standards under 112(d)(2) and (d)(3) for PCCT and equipment leaks from the PET continuous TPA high viscosity multiple end finisher subcategory that were not controlled under the initial P&R IV MACT standards. Put another

way, if the EPA did not adopt a proper MACT standard initially, it is not amending a MACT standard but adopting one for the first time. That is the case here for PCCT and equipment leaks from the PET continuous TPA high viscosity multiple end finisher subcategory that were not controlled under the initial P&R IV MACT standards. The EPA adopted no MACT standard for these emission points, an approach soundly rejected by the D.C. Circuit in *National Lime*, 233 F. 3d at 633–34. Consequently, the EPA is not barred from making MACT floor and beyond-the-floor determinations and issuing MACT standards pursuant to CAA section 112(d)(2) and (3) in this rulemaking.

The EPA is not invoking CAA section 112(d)(6) or 112(f)(2) as its authority to promulgate the MACT standards for currently uncontrolled sources. Rather, the EPA is promulgating these MACT standards for the first time pursuant to sections 112(d)(2) and (3), the provisions that directly govern the promulgation of MACT standards. Using CAA sections 112(d)(2) and (3) ensures the process and considerations are those associated with initially establishing a MACT standard. Contrary to the commenter’s assertion that the EPA conducted new MACT floor analyses for standards currently in effect in setting MACT standards to address certain unregulated sources, the EPA is not establishing these MACT standards under section 112(d)(6). As explained above, the EPA is promulgating new standards, not reevaluating the original standards, under CAA sections 112(d)(2) and (3). The EPA’s action to set MACT standards for PCCT and equipment leaks from the PET continuous TPA high viscosity multiple end finisher subcategory, which were not regulated in the original MACT standards, is consistent with several recent rulemakings, in which we have addressed underlying defects or made other necessary revisions or clarifications in existing NESHAP under sections 112(d)(2) and (3), the provisions that directly govern the initial promulgation of MACT standards (see National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries, October 28, 2009, 74 FR 55670; and National Emission Standards for Hazardous Air Pollutants: Group I Polymers and Resins; Marine Tank Vessel Loading Operations; Pharmaceuticals Production; and the Printing and Publishing Industry, April 21, 2011, 76 FR 22566).

The EPA proposed setting MACT standards for the first time for equipment leaks from the PET

continuous TPA high viscosity multiple end finisher subcategory that were left unregulated in the original NESHAP. Establishing standards for these emission points does not involve developing a new MACT floor analysis for MACT standards currently in effect. In the original NESHAP, the EPA exempted sources producing PET using a continuous TPA high viscosity multiple end finisher process from the requirements for equipment leaks. The EPA established MACT standards for the other P&R IV source categories, but left unregulated this subcategory of PET production. Therefore, the EPA is establishing for the first time MACT standards for the PET continuous TPA high viscosity multiple end finisher subcategory. Based on available data on the PET continuous TPA high viscosity multiple end finisher subcategory, the EPA performed the MACT floor and beyond-the floor analyses to determine the MACT standards for this subcategory. In doing so, the EPA did not reanalyze the MACT floor analysis for the standards established in the original NESHAP for the other P&R IV source categories.

Regarding the proposed MACT standards under CAA section 112(d)(2) and (3) for PCCT from the PET continuous TPA high viscosity multiple end finisher subcategory, the EPA originally promulgated standards for this emission point in the original P&R IV MACT standards. However, these standards were a beyond-the-floor option and were subsequently stayed indefinitely. Based on available data on the PET continuous TPA high viscosity multiple end finisher subcategory, the EPA performed the MACT floor and beyond-the floor analyses to determine the MACT standards for this subcategory. The EPA then proposed to re-set the previously stayed MACT standard as an emission standard that reflects the MACT floor option. In doing so, the EPA did not reanalyze the MACT floor analysis for the standards established in the original NESHAP for the other P&R IV source categories.

*Comment:* One commenter opined that the work practice equipment leak provisions the EPA proposed for PET sources using a continuous TPA high viscosity multiple end finisher are unacceptable and that the EPA should set a no-leak standard since leak-less valves are available. The commenter asserted that the EPA has not demonstrated it is not technologically or economically practicable to measure and control fugitive emissions numerically, as required under section 112(h). The commenter stated that the EPA must at least investigate

measurement techniques, such as remote sensing, before reaching the conclusion that only work practice standards are “feasible.” The commenter urged the EPA to set both numerical and work practice standards for equipment leaks. The commenter also stated that under section 112(d)(2) the EPA must consider requiring facilities to enclose systems or processes to eliminate emissions and requiring capture of fugitive emissions, which it has not done. The commenter opined that the EPA must use the most up-to-date leak detection and repair (LDAR) practices used in similar industries if the EPA determines that LDAR practices are the only way to control such emissions. The commenter also says that the EPA must set an absolute limit on how much of the equipment can be allowed to leak.

*Response:* We disagree with the commenter that the equipment leak standard set for PET sources using a continuous TPA high viscosity multiple end finisher is inappropriate. This source of emissions was previously unregulated by the MACT standards, and we have established standards for these emissions for the first time. Following the procedures of CAA section 112(d)(2) and (3), we established the MACT floor based on the best performing facilities in the source category or subcategory. As there is only one facility in this source subcategory, the current practices at the facility represent the best performing facility in the subcategory and the MACT floor. We performed a beyond-the-floor analysis to consider other technology available, including the LDAR program required by the Hazardous Organic NESHAP (HON), which is the required level of control for other facilities subject to the P&R IV MACT standards, and found this program to not be cost effective. See the memorandum, *Re-Evaluation of Equipment Leak Emissions and Costs at PET Facilities*, available in the docket for this action (Docket Item No. EPA-HQ-OAR-2011-0435-0059). We believe the HON LDAR program represents the most feasible and cost-effective beyond-the-floor option, as anything with more stringent requirements or more expensive equipment would only further increase the costs relative to the emission reductions. This was demonstrated in our analysis of leak-less valves performed as part of the ample margin of safety analysis for the PET source category, which showed very high costs relative to emission reductions for facilities that already have the HON LDAR program in place (see the

memorandum, *Impacts of Control Options to Address Residual Risks for the Pesticide Active Ingredient, Polyether Polyols, and Polymers and Resins IV Production Source Categories*, available in the docket for this action (Docket Item No. EPA-HQ-OAR-2011-0435-0006)). In addition, as explained in the preamble to the proposed rule (77 FR 1293), the established work practice standards are consistent with CAA section 112(h). Applying a measurement methodology to this class of sources is not technologically and economically feasible due to the number of openings and possible emission points, and because the fugitive emissions cannot be routed to a conveyance designed to capture such emissions. See the memorandum, *Re-Evaluation of Equipment Leak Emissions and Costs at PET Facilities*, available in the docket for this action (Docket Item No. EPA-HQ-OAR-2011-0435-0059). We also note that the EPA is not permitted to set both a numerical and work practice standard for an emission point. A work practice standard may only be established when it is not technologically and economically feasible to establish a numerical emission standard. See CAA section 112(h).

#### D. Technology Review

*Comment:* One commenter asserted the EPA did not show that it looked for improvements in any of the technologies reviewed under section 112(d)(6), and noted several such improvements. These improvements include leak-less valves, seal-less pumps, welded connections, and the use of passive optical gas imaging (OGI) devices to reduce equipment leaks. The commenter also stated that the EPA should also require lower leak definitions of 100 ppm for valves, connectors and other equipment; 500 ppm for pumps, compressors, and pressure relief valves; tighter repair timelines of minimization of leaks within 24 hours of identification and repairs within seven days; and repairs using the best available technologies for frequent or high emissions leakers, all of which are the requirements in the California Bay Area Air Quality Management District and the South Coast Air Quality Management District. For other emission sources, the commenter opined that the EPA must prohibit flaring and require complete capture through flare gas recovery systems because it is widely believed that flares do not reduce HAP emissions to the level previously understood and flares create new toxic air emissions. The commenter asserted the EPA should

also require the use of remote sensing technology as a routine matter for all current sources, considering a 2009 report showing reductions from the Texas Petrochemicals Houston plant using this technology. The commenter further asserted the EPA must consider developments noted in a 2008 report by the Environmental Integrity Project and other authors for control of fugitive emissions from storage tanks and wastewater and improved monitoring and repair for tanks.<sup>11</sup>

*Response:* In our CAA section 112(d)(6) review of pre-existing standards, we consider both improvements in practices, processes or control technologies that we may have previously considered, as well as practices, processes or control technologies that are new, or were unknown to us when the original MACT standards were developed. Because incremental changes in the practices, processes or control technologies can have a significant impact on emissions, these changes are considered in our analysis of whether to revise the MACT standards under CAA section 112(d)(6). In considering both existing and new practices, processes and control technologies, we consider costs and other factors in determining whether it is “necessary” to revise the existing standard.

The commenter suggested we analyze “leak-less” technologies such as leak-less valves, seal-less pumps, and welded connections. Packing combinations for valves and gaskets for flanges that significantly reduce emissions are in place in some facilities, particularly oil refineries. Facilities and packing manufacturers have created emission testing protocols for low leak packing in order to study and test their effectiveness.<sup>12</sup> Costs for leak-less valves were previously estimated for the synthetic organic chemical manufacturing industry (SOCMI).<sup>13</sup> Using these estimates, we analyzed the costs associated with requiring leak-less valve technology for each of these

<sup>11</sup> See “Houston, We Have a Problem—A Roadmap for Reducing Petrochemical Industry Toxic Emissions in the Lone Star State.” Galveston-Houston Association for Smog Prevention, Industry Professionals for Clean Air, Environmental Defense Fund, and Environmental Integrity Project. May 2008.

<sup>12</sup> See “Analysis of Emission Reduction Techniques for Equipment Leaks.” Memorandum from C. Hancy, RTI International, to Jodi Howard, U.S. Environmental Protection Agency. December 21, 2011. (Docket Item No. EPA-HQ-OAR-2010-0869-0029).

<sup>13</sup> See “National Emission Standards for Hazardous Air Pollutants for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry: Proposed Rule.” 71 FR 34422, June 14, 2006.

source categories. Annual costs per source category ranged from \$1.3 million/yr to \$30.1 million/yr per facility for each of the source categories, with total capital investments ranging from \$9.2 million to \$220 million. Emission reductions were assumed to be 100 percent and ranged from 5.2 to 123.4 tpy of HAP per source category, resulting in a cost effectiveness of \$244,000/ton HAP. We do not consider this cost effectiveness to be reasonable and, as a result, do not consider leak-less valves to be economically feasible.

The commenter suggested we evaluate seal-less pump and welded connections. However, we do not have cost information that can be used to estimate costs for these technologies and the commenter did not provide such costs.

The commenter suggested we evaluate OGI devices as an advancement in technology. We note that the General Provisions for NESHAP at 40 CFR 63.11(c) through (e) already allows the use of OGI as an alternative work practice (AWP) to the traditional LDAR monitoring program (e.g., EPA Method 21). Section 63.11(c) through (e) allows the use of OGI along with an annual EPA Method 21 survey of all of the equipment.

We conducted a technology review to assess lowering the leak definition for valves to the 100 ppm level used by Bay Area Air Quality Management District (BAAQMD).<sup>14</sup> We evaluated the incremental cost effectiveness between retaining the leak definition of 500 ppm (as proposed) and a leak definition of 100 ppm. According to our analysis, the incremental cost effectiveness for all three source categories ranged from \$16,000/ton HAP to \$18,000/ton HAP. We do not consider this to be cost effective. In our technology review, we also evaluated the BAAQMD program for tightening the repair timeline for components awaiting repair.<sup>15</sup> According to our analysis, the cost effectiveness for all three source categories ranged from \$11,000/ton HAP to \$99,000/ton HAP. We do not consider this to be cost effective. As a result, the final rule retains the leak definition for valves of 500 ppm and the current repair schedule, as proposed.

Also, as a part of our technology review, we conducted an analysis to determine the economic feasibility of

lowering the leak definition for pumps to 500 ppm, as compared to the current leak definition of 2,000 ppm.<sup>16</sup> We evaluated the incremental cost effectiveness between retaining the leak definition of 2,000 ppm (as proposed) and a leak definition of 500 ppm. According to our analysis, the incremental cost effectiveness for all three source categories was \$29,000/ton HAP. We do not consider this to be cost effective and, as a result, the final rule retains the leak definition for pumps of 2,000 ppm.

The commenter suggested that we evaluate lowering the leak definition for pressure relief devices to 500 ppm. For all three source categories, the existing requirements for pressure relief devices already specify operation with no detectable emissions, defined as an instrument reading above 500 ppm.

We are not at this point able to agree with the premise underlying the commenter's suggestions that flaring should be entirely prohibited in the subject source categories in favor of complete capture through flare gas recovery systems. As further discussed elsewhere, the EPA is currently studying the performance of flares to control HAP emissions, and we do not yet have sufficient performance data for the PAI, PEPO and P&R IV source categories. Therefore, we are not at this time prepared to finalize any changes to the currently applicable regulations pertaining to the performance of flares in the PAI, PEPO, and P&R IV source categories, including prohibiting flaring in favor of complete capture. We may explore whether to revise flare requirements in the future, if we conclude that new requirements are warranted and would be applicable to subject source categories.

In the meantime, we note that none of the EPA's MACT standards currently require the use of flare gas recovery systems, and the use of flare gas recovery systems, while prevalent in the petroleum refining source category, has not yet been demonstrated as being applicable to these or other chemical manufacturing source categories, primarily due to the variety of chemical compounds being sent to the flare (e.g., streams from multiple chemical manufacturing process units are often sent to the same flare header system). This issue would particularly need further analysis in order to consider the commenter's suggestion, and we are not at this point prepared to resolve it. The commenter provided no data regarding this issue that would have enabled us to promulgate its suggested revision. Nor

did the commenter provide data to support the assertion that flaring from these source categories "can create new toxic air emissions." Therefore, the EPA is not presently able to agree with the commenter's claim that the benefits of the use of flares, especially as a backup control device to reduce HAP emissions, are outweighed by secondary HAP emissions that may be caused by flaring, such that prohibiting flaring entirely is warranted at this point in the EPA's continuing analysis.

## VII. Impacts of the Final Rules

### A. What are the air impacts?

We are finalizing new emission standards for equipment leaks and PCCT in the PET continuous TPA high viscosity multiple end finisher subcategory regulated by the P&R IV MACT standards at the MACT floor emissions levels currently achieved by the one facility in this subcategory. As a result, no additional emission reductions from equipment leaks and PCCT in this subcategory will be realized, although increases in emissions in the future will be prevented. For the final revisions to the PAI, PEPO and P&R IV MACT standards regarding SSM and PRDs, these changes will result in fewer emissions during SSM periods and PRD releases or less frequent SSM periods or PRD releases. However, the emission reductions, while tangible, are difficult to quantify and are not included in our assessment of air quality impacts. Therefore, no quantifiable air quality impacts are expected to result from the final amendments to these three MACT standards. While we are unable to quantify these emission reductions, we expect that emissions will decrease as a result of this rulemaking.

### B. What are the cost impacts?

Under the final amendments, facilities in the PAI, PEPO and P&R IV source categories are expected to incur initial capital and annual recordkeeping and reporting costs associated with the PRD monitoring requirements and other recordkeeping and reporting requirements. The capital costs for each facility were estimated based on available information on the subject source categories and data collected for other EPA projects. The total annual costs for the PAI source category are estimated to be \$222,000. The total annual costs for the PEPO source category are estimated to be \$242,000. For the P&R IV source categories, the total annual costs are estimated to be \$566,000. The memorandum titled, *Revised Cost Impacts Associated with*

<sup>14</sup> See "Supplemental Technology Review for Equipment Leaks in Group IV Polymers and Resins, Pesticide Active Ingredient Production, and Polyether Polyols Production Source Categories." Memorandum from EC/R Incorporated to Nick Parsons, U.S. Environmental Protection Agency. January 31, 2014. (Docket ID No. EPA-HQ-OAR-2011-0435.)

<sup>15</sup> See footnote 14.

<sup>16</sup> See footnote 14.

the Final Pressure Relief Device Monitoring Requirements for the Pesticide Active Ingredient Production, Polyether Polyols Production, and Group IV Polymers and Resins Source Categories, includes a complete description of the cost estimate methods used for this analysis and is available in the docket for this action (EPA-HQ-OAR-2011-0435).

Though the cost savings cannot be monetized, consistent with Executive Order 13563, "Improving Regulation and Regulatory Review," issued on January 18, 2011, the electronic reporting requirements being finalized in this action for performance test reports are expected to reduce the burden for the PAI, PEPO and P&R IV facilities in the future by cutting back on the recordkeeping costs and the costs that would be associated with fewer or less-substantial data collection requests (due to performance test information being readily available on the EPA's WebFIRE database). Although the use of electric reporting may reduce the recordkeeping and reporting burden for facilities in the future, facilities will still incur annualized costs, on net, due to these final amendments.

#### C. What are the economic impacts?

We estimate that there will be no more than a 0.01-percent price change and a similar reduction in output associated with this action. This is based on the costs of the rule and the responsiveness of producers and consumers to supply and demand elasticities for the industries affected by this action. The impacts to affected firms will be low because the annual compliance costs are small when compared to the annual revenues for the affected parent firms (much less than 1 percent for each). The impacts to affected consumers should also be small. Thus, there will not be any significant economic impacts on affected firms and their consumers as a result of this final action.

#### D. What are the benefits?

As explained in the air quality impacts section, we are finalizing new emission standards for equipment leaks and PCCT in the PET continuous TPA high viscosity multiple end finisher subcategory regulated by the P&R IV MACT standards at the MACT floor emissions levels currently achieved by the one facility in this subcategory. As a result, no additional emission reductions from equipment leaks and PCCT in this subcategory will be realized, although increases in emissions in the future will be prevented. For the final revisions to the

PAI, PEPO and P&R IV MACT standards regarding SSM and PRDs, these changes will result in fewer emissions during SSM periods and PRD releases or less frequent SSM periods or PRD releases. However, the emission reductions, while tangible, are difficult to quantify and are not included in our assessment of health benefits. As a result, there are no quantifiable emission reductions associated with the final amendments for these three MACT standards and, therefore, there are no quantifiable health benefits to associate with reduced emissions. While we are unable to quantify these emission reductions, as a result of this rulemaking we expect reductions in the actual and potential cancer risks and non-cancer health effects due to emissions of HAP from these source categories.

### VIII. Statutory and Executive Order Reviews

#### A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a "significant regulatory action" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011).

#### B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* The information collection requirements are not enforceable until OMB approves them. The information requirements in this rulemaking are based on the notification, recordkeeping and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to agency policies set forth in 40 CFR part 2, subpart B.

The OMB previously approved the information collection requirements contained in the existing regulations being amended with this final rule (i.e., 40 CFR part 63, subparts JJJ, MMM and PPP) under the provisions of the Paperwork Reduction Act, 44 U.S.C.

3501, *et seq.* The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. Burden is defined at 5 CFR 1320.3(b).

For these final rules, the EPA is adding affirmative defense to the estimates of burden in the ICR for these rules. To provide the public with an estimate of the relative magnitude of the burden associated with an assertion of the affirmative defense position adopted by a source, the EPA has provided administrative adjustments to this ICR to show what the notification, recordkeeping and reporting requirements associated with the assertion of the affirmative defense might entail. The EPA's estimate for the required notification, reports and records for any individual incident, including the root cause analysis, totals \$1,584 annually per MACT standard, and is based on the time and effort required of a source to review relevant data, interview plant employees and document the events surrounding a malfunction that has caused an exceedance of an emission limit. The estimate also includes time to produce and retain the record and reports for submission to the EPA. The EPA provides this illustrative estimate of this burden because these costs are only incurred if there has been a violation and a source chooses to take advantage of the affirmative defense.

Given the variety of circumstances under which malfunctions could occur, as well as differences among sources' operation and maintenance practices, we cannot reliably predict the severity and frequency of malfunction-related excess emissions events for a particular source. It is important to note that the EPA has no basis currently for estimating the number of malfunctions that would qualify for an affirmative defense. Current historical records would be an inappropriate basis for this estimate, as source owners or operators previously operated their facilities in recognition that they were exempt from the requirement to comply with emission standards during malfunctions. Even if the historical records were an appropriate basis for this estimate, they would still lead us to believe that the number of instances in which source operators might avail themselves of the affirmative defense will be extremely small. The records indicate that only a small number of excess emissions events reported by source operators would be expected to result from a malfunction (based on the definition above), and that only a subset of excess emissions events caused by malfunctions would result in the source choosing to assert the affirmative

defense, resulting in no more than an estimated 1 or 2 such occurrences from all sources subject to subparts JJJ, MMM and PPP over the 3-year period covered by this ICR. We expect to gather information on such events in the future and will revise this estimate as better information becomes available.

#### 1. Group IV Polymers and Resins MACT Standards

For the Group IV Polymers and Resins MACT standards, an ICR document prepared by the EPA for the amendments to the standards has been assigned EPA ICR number 2457.02. Burden changes associated with these amendments result from new recordkeeping and reporting requirements associated with the cooling towers and equipment leak provisions for one facility, and PRD monitoring systems and affirmative defense provisions for all facilities subject to the MACT standards.

We estimate 31 regulated facilities are currently subject to 40 CFR part 63, subpart JJJ. The annual monitoring, reporting and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the standards) for these amendments to subpart JJJ is estimated to be 459 labor hours at a cost of \$26,000 per year. The initial capital costs per facility (based on PRD monitoring system costs) range from \$13,000 to \$112,000. The annualized capital costs per facility range between \$1,800 to \$16,000 based on a 10-year equipment lifespan. There is no estimated change in annual burden to the federal government for these amendments.

#### 2. Pesticide Active Ingredient Production MACT Standards

For the Pesticide Active Ingredient Production MACT standards, an ICR document prepared by the EPA for the amendments to the standards has been assigned EPA ICR number 1807.07. Burden changes associated with these amendments result from new recordkeeping and reporting requirements associated with PRD monitoring systems and affirmative defense provisions for all facilities subject to the MACT standards.

We estimate 18 regulated facilities are currently subject to 40 CFR part 63, subpart MMM. The annual monitoring, reporting and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the standards) for these amendments to subpart MMM is estimated to be 229 labor hours at a cost of \$20,000 per year. The initial capital costs per facility (based on PRD monitoring system costs)

range from \$12,700 to \$82,000. The annualized capital costs per facility range from \$1,800 to \$11,700 based on a 10-year equipment lifespan. There is no estimated change in annual burden to the federal government for these amendments.

#### 3. Polyether Polyols Production MACT Standards

For the Polyether Polyols Production MACT standards, an ICR document prepared by the EPA for the amendments to the standards has been assigned EPA ICR number 1811.09. Burden changes associated with these amendments result from new recordkeeping and reporting requirements associated with PRD monitoring systems and affirmative defense provisions for all facilities subject to the MACT standards.

We estimate 23 regulated facilities are currently subject to 40 CFR part 63, subpart PPP. The annual monitoring, reporting and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the standards) for these amendments to subpart PPP is estimated to be 292 labor hours at a cost of \$18,000 per year. The initial capital costs per facility (based on PRD monitoring system costs) range from \$29,000 to \$69,000. The annualized capital costs per facility range from \$4,100 to \$9,800 based on a 10-year equipment lifespan. There is no estimated change in annual burden to the federal government for these amendments.

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 in 40 CFR are listed in 40 CFR part 9. When these ICR are approved by OMB, the agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control numbers for the approved information collection requirements contained in this final rule.

#### C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations and small governmental jurisdictions.

For purposes of assessing the impacts of this final rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field. According to the SBA small business standards definitions, for the Group IV Polymers and Resins source categories, which have the NAICS code of 325211 (i.e., Plastics Material and Resin Manufacturing), the SBA small business size standard is 750 employees. For the PEPO source category, which has the NAICS code of 325199 (i.e., All Other Basic Organic Chemical Manufacturing), the SBA small business size standard is 1,000 employees. For the PAI source category, which has the NAICS codes of 325199 (i.e., All Other Basic Organic Chemical Manufacturing) and 325320 (i.e., Pesticide and Other Agricultural Chemical Manufacturing), the SBA small business size standards are 1,000 employees and 500 employees, respectively.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. There are no affected small businesses in any source category affected by the final rule. Virtually all of the companies affected by this rule are large integrated corporations that are not considered to be small entities per the definitions provided in this section.

Although this final rule will not have a significant economic impact on a substantial number of small entities, the EPA nonetheless has tried to reduce the impact of this rule on small entities that could potentially be impacted by this rule in the future. The final requirements for PRD monitoring have been revised to provide facilities with greater flexibility based on their current equipment and operations. In addition, the final malfunction recordkeeping requirement was designed to provide all affected facilities, including small entities, with a means of supporting an affirmative defense in the event of a violation occurring during a malfunction.

#### D. Unfunded Mandates Reform Act

This rule does not contain a federal mandate that may result in expenditures of \$100 million or more for state, local

or tribal governments, in the aggregate, or the private sector in any one year. Thus, this rule is not subject to the requirements of sections 202 or 205 of the UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments nor does it impose obligations upon them.

#### *E. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. None of the affected facilities are owned or operated by state governments, and the requirements discussed in today's notice will not supersede state regulations that are more stringent. The burden to the respondents and the states is approximately \$977,000 for the three MACT standards addressed in this final rule. Thus, Executive Order 13132 does not apply to this action.

#### *F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). It will not have substantial direct effect on tribal governments, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this action. Although Executive Order 13175 does not apply to this action, the EPA solicited comments on this action from tribal officials, but received none.

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

This action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action will not relax the control measures on existing regulated

sources, and EPA's risk assessments (included in the docket for this action) demonstrate that the existing regulations are health protective.

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

This action is not subject to Executive Order 13211, (66 FR 28355, May 22, 2001), because it is not a significant regulatory action under Executive Order 12866.

#### *I. National Technology Transfer and Advancement Act*

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

This action involves technical standards. The EPA has elected to use ASTM D2908-74 or 91 and ASTM D3370-76 or 95a for the PCCT at the one Group IV Polymers and Resins facility in the PET continuous TPA high viscosity multiple end finisher subcategory. No applicable VCS were identified for these methods.

Under section 63.7(f) and section 63.8(f) of Subpart A of the General Provisions, a source may apply to the EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications or procedures in the final rule.

#### *J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority

populations and low-income populations in the United States.

The EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. To examine the potential for any environmental justice issues that might be associated with the level of the standards for each source category, we performed a comparative analysis of the demographics of the population within the vicinity of the facilities in these source categories (i.e., within a 3-mile radius) and the national average demographic distributions. Our analysis shows that most demographic categories are within 2 percentage points of national averages, except for the African American population, which exceeds the national average by 6 percentage points (18 percent versus 12 percent). The EPA has determined that the current health risks posed by emissions from these source categories are acceptable and provide an ample margin of safety to protect public health and prevent adverse environmental effects.

#### *K. Congressional Review Act*

U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that, before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this final rule and other required information to the United States Senate, the United States House of Representatives and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). The final rules will be effective on March 27, 2014.

#### **List of Subjects for 40 CFR Part 63**

Environmental protection, Administrative practice and procedures, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: January 31, 2014.

**Gina McCarthy**,  
Administrator.

For the reasons stated in the preamble, the Environmental Protection Agency (EPA) is amending Title 40, chapter I, of the Code of Federal Regulations (CFR) as follows:

#### **PART 63—[AMENDED]**

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

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

#### **Subpart A—[Amended]**

■ 2. Section 63.14 is amended by:

- a. Removing paragraphs (g)(28) and (29);
- b. Redesignating paragraphs (g)(30) through (84) as (g)(40) to (94); and
- c. Adding new paragraphs (g)(28) through (39).

The additions read as follows:

#### **§ 63.14 Incorporations by reference.**

\* \* \* \* \*

(g) \* \* \*

(28) ASTM D2908–74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved June 27, 1974, IBR approved for § 63.1329(c).

(29) ASTM D2908–91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).

(30) ASTM D2908–91(Reapproved 2001), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).

(31) ASTM D2908–91(Reapproved 2005), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 1, 2005, IBR approved for § 63.1329(c).

(32) ASTM D2908–91(Reapproved 2011), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved May 1, 2011, IBR approved for § 63.1329(c).

(33) ASTM D3173–03 (Reapproved 2008), Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, (Approved February 1, 2008), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(34) ASTM D3257–93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(35) ASTM D3370–76, Standard Practices for Sampling Water, Approved

August 27, 1976, IBR approved for § 63.1329(c).

(36) ASTM D3370–95a, Standard Practices for Sampling Water from Closed Conduits, Approved September 10, 1995, IBR approved for § 63.1329(c).

(37) ASTM D3370–07, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2007, IBR approved for § 63.1329(c).

(38) ASTM D3370–08, Standard Practices for Sampling Water from Closed Conduits, Approved October 1, 2008, IBR approved for § 63.1329(c).

(39) ASTM D3370–10, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2010, IBR approved for § 63.1329(c).

\* \* \* \* \*

#### **Subpart JJJ—[Amended]**

■ 3. Section 63.1310 is amended by:

- a. Revising paragraphs (a)(4) introductory text, (a)(4)(iv), and (a)(4)(vi);
- b. Revising paragraph (c)(1);
- c. Revising paragraph (d) introductory text;
- d. Revising paragraph (j); and
- e. Adding paragraph (k).

The revisions and additions read as follows:

#### **§ 63.1310 Applicability and designation of affected sources.**

(a) \* \* \*

(4) *Emission points and equipment.* The affected source also includes the emission points and components specified in paragraphs (a)(4)(i) through (vi) of this section that are associated with each applicable group of one or more TPPU constituting an affected source.

\* \* \* \* \*

(iv) Each process contact cooling tower used in the manufacture of poly (ethylene terephthalate) resin (PET) that is associated with a new affected source.

\* \* \* \* \*

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

\* \* \* \* \*

(c) \* \* \*

(1) Components and equipment that do not contain organic HAP and are located within a TPPU that is part of an affected source;

\* \* \* \* \*

(d) *Processes excluded from the affected source.* The processes specified in paragraphs (d)(1) through (5) of this section are not part of the affected source and are not subject to the

requirements of both this subpart and subpart A of this part:

\* \* \* \* \*

(j) *Applicability of this subpart.* (1) The emission limitations set forth in this subpart and the emission limitations referred to in this subpart shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies.

(2) The emission limitations set forth in subpart H of this part, as referred to in § 63.1331, shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized, resulting in cessation of the emissions to which § 63.1331 applies.

(3) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with this subpart during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment, if the shutdown would contravene requirements of this subpart applicable to such items of equipment.

(4) *General duty.* At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(k) *Affirmative defense for violation of emission standards during malfunction.* In response to an action to enforce the standards set forth in this subpart, the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed if the owner or operator fails to meet their burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.



(1) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, the owner or operator must timely meet the reporting requirements in paragraph (k)(2) of this section, and must prove by a preponderance of evidence that:

(i) The violation:  
(A) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when a violation occurred; and

(iii) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(2) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator, with all necessary supporting documentation, that explains how it has met the

requirements set forth in paragraph (k)(1) of this section. This affirmative defense report shall be included in the first periodic compliance report, deviation report, or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance report, deviation report, or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance report, deviation report, or excess emission report due after the initial occurrence of the violation of the relevant standard.

- 4. Section 63.1311 is amended by:
- a. Revising paragraphs (b) and (c);
- b. Revising paragraphs (d) introductory text and (d)(6); and
- c. Adding paragraph (d)(7).

The revisions and additions read as follows:

**§ 63.1311 Compliance dates and relationship of this subpart to existing applicable rules.**

\* \* \* \* \*

(b) New affected sources that commence construction or reconstruction after March 29, 1995 shall be in compliance with this subpart (except § 63.1331(a)(9)(iii)) upon initial start-up or by June 19, 2000, whichever is later, except that new affected sources whose primary product, as determined using the procedures specified in § 63.1310(f), is PET shall be in compliance with § 63.1331 (except § 63.1331(a)(9)(iii)) upon initial start-up or August 6, 2002, whichever is later. New affected sources that commenced construction or reconstruction after March 25, 1995, but on or before January 9, 2012, shall be in compliance with the pressure relief device monitoring requirements of § 63.1331(a)(9)(iii) no later than March 27, 2017. New affected sources that commenced construction or reconstruction after January 9, 2012, shall be in compliance with the pressure relief device monitoring requirements of § 63.1331(a)(9)(iii) upon initial startup or by March 27, 2014, whichever is later.

(c) Existing affected sources shall be in compliance with this subpart (except for § 63.1331 for which compliance is covered by paragraph (d) of this section) no later than June 19, 2001, as provided in § 63.6(c), unless an extension has been granted as specified in paragraph (e) of this section, except that the compliance date for the provisions contained in § 63.1329 is extended to

March 27, 2014, for existing affected sources whose primary product, as determined using the procedures specified in § 63.1310(f), is PET using a continuous terephthalic acid high viscosity multiple end finisher process.

(d) Except as provided for in paragraphs (d)(1) through (7) of this section, existing affected sources shall be in compliance with § 63.1331 no later than June 19, 2001, unless an extension has been granted pursuant to paragraph (e) of this section.

\* \* \* \* \*

(6) Notwithstanding paragraphs (d)(1) through (5) of this section, existing affected sources whose primary product, as determined using the procedures specified in § 63.1310(f), is PET shall be in compliance with § 63.1331 (except § 63.1331(a)(9)(iii)) no later than August 6, 2002.

(7) Compliance with the pressure relief device monitoring provisions of § 63.1331(a)(9)(iii) shall occur no later than March 27, 2017.

\* \* \* \* \*

- 5. Section 63.1312 is amended by:

- a. Adding, alphabetically, the term “Pressure relief device or valve (§ 63.161)” and removing the term “Start-up, shutdown, and malfunction plan (§ 63.101)” in paragraph (a); and
- b. Adding the definition for “Affirmative defense” in alphabetical order in paragraph (b).

The revisions and additions read as follows:

**§ 63.1312 Definitions.**

\* \* \* \* \*

(b) \* \* \*  
*Affirmative defense means*, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

\* \* \* \* \*

- 6. Section 63.1315 is amended by:

- a. Revising paragraph (a) introductory text;
- b. Adding paragraph (a)(19); and
- c. Revising paragraph (b)(2).

The revisions and additions read as follows:

**§ 63.1315 Continuous process vents provisions.**

(a) For each continuous process vent located at an affected source, the owner or operator shall comply with the requirements of §§ 63.113 through 63.118, with the differences noted in paragraphs (a)(1) through (19) of this section for the purposes of this subpart,

except as provided in paragraphs (b) through (e) of this section.

\* \* \* \* \*

(19) During periods of startup or shutdown, as an alternative to using the procedures specified in § 63.116, an owner or operator of an affected source or emission unit subject to an emission limit expressed as mass emissions per mass product may demonstrate compliance with the limit in accordance with paragraph (a)(19)(i), (ii), or (iii) of this section.

(i) Keep records establishing that the raw material introduced and product discharged rates were both zero.

(ii) Divide the organic HAP emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero according to § 63.1318(b)(1). Keep records of this calculation.

(iii) Keep records establishing that the operating parameters of the control device used to comply with the emission limit in § 63.113(a)(1) or (2) were maintained at the level established to meet the emission limit at maximum representative operating conditions.

(b) \* \* \*

(2) Not allow organic HAP emissions from the collection of continuous process vents at the affected source to be greater than 0.000590 kg organic HAP/Mg of product. Compliance with this paragraph (b)(2) shall be determined using the procedures specified in § 63.1333(b). During periods of startup or shutdown, as an alternative to using the procedures specified in § 63.1333(b), an owner or operator of an affected source or emission unit subject to an emission limit expressed as mass emissions per mass product may demonstrate compliance with the limit in accordance with paragraph (b)(2)(i), (ii), or (iii) of this section.

(i) Keep records establishing that the raw material introduced and product discharged rates were both zero.

(ii) Divide the organic HAP emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero according to § 63.1333(b). Keep records of this calculation.

(iii) Keep records establishing that the operating parameters of the control device used to comply with the emission limit in paragraph (b)(2) of this section were maintained at the level established to meet the emission limit at maximum representative operating conditions.

\* \* \* \* \*

■ 7. Section 63.1316 is amended by revising paragraphs (b)(1)(i)(A),

(b)(1)(ii)(A), (b)(2)(i)(A), (b)(2)(ii)(A), and (c)(1)(i) to read as follows:

**§ 63.1316 PET and polystyrene affected sources—emissions control provisions.**

\* \* \* \* \*

- (b) \* \* \*
- (1) \* \* \*
- (i) \* \* \*

(A) Organic HAP emissions from all continuous process vents in each individual material recovery section shall, as a whole, be no greater than 0.018 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents in the collection of material recovery sections within the affected source shall, as a whole, be no greater than 0.018 kg organic HAP per Mg product from all associated TPPU. During periods of startup or shutdown, as an alternative to using the procedures specified in § 63.1318(b)(1), an owner or operator of an affected source or emission unit subject to an emission limit expressed as mass emissions per mass product may demonstrate compliance with the limit in accordance with paragraphs (b)(1)(i)(A)(1), (2), or (3) of this section.

(1) Keep records establishing that the raw material introduced and product discharged rates were both zero.

(2) Divide the organic HAP emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero according to § 63.1318(b)(1). Keep records of this calculation.

(3) Keep records establishing that the operating parameters of the control device used to comply with the emission limit in paragraph (b)(1)(i)(A) of this section were maintained at the level established to meet the emission limit at maximum representative operating conditions.

\* \* \* \* \*

- (ii) \* \* \*

(A) Organic HAP emissions from all continuous process vents in each individual polymerization reaction section (including emissions from any equipment used to further recover ethylene glycol, but excluding emissions from process contact cooling towers) shall, as a whole, be no greater than 0.02 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents in the collection of polymerization reaction sections within the affected source shall, as a whole, be no greater than 0.02 kg organic HAP per Mg product from all associated TPPU(s). During periods of startup or shutdown, as an alternative to

using the procedures specified in § 63.1318(b)(1), an owner or operator of an affected source or emission unit subject to an emission limit expressed as mass emissions per mass product may demonstrate compliance with the limit in accordance with paragraphs (b)(1)(ii)(A)(1), (2), or (3) of this section.

(1) Keep records establishing that the raw material introduced and product discharged rates were both zero.

(2) Divide the organic HAP emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero according to § 63.1318(b)(1). Keep records of this calculation.

(3) Keep records establishing that the operating parameters of the control device used to comply with the emission limit in paragraph (b)(1)(ii)(A) of this section were maintained at the level established to meet the emission limit at maximum representative operating conditions.

\* \* \* \* \*

- (2) \* \* \*
- (i) \* \* \*

(A) Organic HAP emissions from all continuous process vents associated with the esterification vessels in each individual raw materials preparation section shall, as a whole, be no greater than 0.04 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents associated with the esterification vessels in the collection of raw material preparation sections within the affected source shall, as a whole, be no greater than 0.04 kg organic HAP per Mg of product from all associated TPPU(s). Other continuous process vents (i.e., those not associated with the esterification vessels) in the collection of raw materials preparation sections within the affected source shall comply with § 63.1315. During periods of startup or shutdown, as an alternative to using the procedures specified in § 63.1318(b)(1), an owner or operator of an affected source or emission unit subject to an emission limit expressed as mass emissions per mass product may demonstrate compliance with the limit in accordance with paragraphs (b)(2)(i)(A)(1), (2), or (3) of this section.

(1) Keep records establishing that the raw material introduced and product discharged rates were both zero.

(2) Divide the organic HAP emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero according to § 63.1318(b)(1). Keep records of this calculation.

(3) Keep records establishing that the operating parameters of the control device used to comply with the emission limit in paragraph (b)(2)(i)(A) of this section were maintained at the level established to meet the emission limit at maximum representative operating conditions.

\* \* \* \* \*

(ii) \* \* \*

(A) Organic HAP emissions from all continuous process vents in each individual polymerization reaction section (including emissions from any equipment used to further recover ethylene glycol, but excluding emissions from process contact cooling towers) shall, as a whole, be no greater than 0.02 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents in the collection of polymerization reaction sections within the affected source shall, as a whole, be no greater than 0.02 kg organic HAP per Mg of product from all associated TPPU(s). During periods of startup or shutdown, as an alternative to using the procedures specified in § 63.1318(b)(1), an owner or operator of an affected source or emission unit subject to an emission limit expressed as mass emissions per mass product may demonstrate compliance with the limit in accordance with paragraphs (b)(2)(ii)(A)(1), (2), or (3) of this section.

(1) Keep records establishing that the raw material introduced and product discharged rates were both zero.

(2) Divide the organic HAP emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero according to § 63.1318(b)(1). Keep records of this calculation.

(3) Keep records establishing that the operating parameters of the control device used to comply with the emission limit in paragraph (b)(2)(ii)(A) of this section were maintained at the level established to meet the emission limit at maximum representative operating conditions.

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(i) Organic HAP emissions from all continuous process vents in each individual material recovery section shall, as a whole, be no greater than 0.0036 kg organic HAP per Mg of product from the associated TPPU(s); or alternatively, organic HAP emissions from all continuous process vents in the collection of material recovery sections within the affected source shall, as a whole, be no greater than 0.0036 kg

organic HAP per Mg of product from all associated TPPU(s). During periods of startup or shutdown, as an alternative to using the procedures specified in § 63.1318(b)(1), an owner or operator of an affected source or emission unit subject to an emission limit expressed as mass emissions per mass product may demonstrate compliance with the limit in accordance with paragraphs (c)(1)(i)(A), (B), or (C) of this section.

(A) Keep records establishing that the raw material introduced and product discharged rates were both zero.

(B) Divide the organic HAP emission rate during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero according to § 63.1318(b)(1). Keep records of this calculation.

(C) Keep records establishing that the operating parameters of the control device used to comply with the emission limit in paragraph (c)(1)(i) of this section were maintained at the level established to meet the emission limit at maximum representative operating conditions.

\* \* \* \* \*

■ 8. Section 63.1318 is amended by:

■ a. Adding a sentence after the first sentence of paragraph (b)(1) introductory text and before Equation 1; and

■ b. Adding a sentence to the end of paragraph (c).

The additions read as follows:

**§ 63.1318 PET and polystyrene affected sources—testing and compliance demonstration provisions.**

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \* During periods of startup or shutdown, as an alternative to using Equation 1 of this subpart, the owner or operator may divide the emission rate of total organic HAP or TOC during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero to determine compliance with the emission limit. \* \* \*

\* \* \* \* \*

(c) *Compliance with mass emissions per mass product standards.* \* \* \* During periods of startup or shutdown, as an alternative to using the procedures specified in paragraph (b)(1) of this section, the owner or operator may divide the emission rate of total organic HAP or TOC during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a

production rate greater than zero to comply with the emission limit.

\* \* \* \* \*

■ 9. Section 63.1319 is amended by revising the heading of paragraph (c) to read as follows:

**§ 63.1319 PET and polystyrene affected sources—recordkeeping provisions.**

\* \* \* \* \*

(c) *Records demonstrating compliance with temperature limits for final condensers.* \* \* \*

■ 10. Section 63.1324 is amended by revising the second sentence of paragraph (c)(4)(ii)(C) to read as follows:

**§ 63.1324 Batch process vents—monitoring equipment.**

\* \* \* \* \*

(c) \* \* \*

(4) \* \* \*

(ii) \* \* \*

(C) \* \* \* The plan shall require determination of gas stream flow by a method which will at least provide a value for either a representative or the highest gas stream flow anticipated in the scrubber during representative operating conditions other than malfunctions. \* \* \*

■ 11. Section 63.1329 is amended by revising the first sentence of paragraph (c) introductory text; and adding paragraphs (c)(2)(i) and (ii).

The revisions and additions read as follows:

**§ 63.1329 Process contact cooling towers provisions.**

\* \* \* \* \*

(c) *Existing affected source requirements.* The owner or operator of an existing affected source subject to this section who manufactures PET using a continuous terephthalic acid high viscosity multiple end finisher process and who is subject or becomes subject to 40 CFR part 60, subpart DDD, shall maintain an ethylene glycol concentration in the process contact cooling tower at or below 6.0 percent by weight averaged on a daily basis over a rolling 14-day period of operating days. \* \* \*

(2) \* \* \*

(i) Where 40 CFR 60.564(j)(1) requires the use of ASTM D2908–74 or 91, “Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography,” ASTM D2908–91 (2011), D2908–91 (2005), D2908–91 (2001), D2908–91, or D2908–74 (all standards incorporated by reference, see § 63.14) may be used.

(ii) Where 40 CFR 60.564(j)(1)(i) requires the use of ASTM D3370–76 or 95a, “Standard Practices for Sampling

Water from Closed Conduits,” ASTM D3370–10, D3370–08, D3370–07, D3370–95a, or D3370–76 (all standards incorporated by reference, see § 63.14) may be used.

\* \* \* \* \*

- 12. Section 63.1331 is amended by:
  - a. Revising paragraph (a) introductory text;
  - b. Adding paragraph (a)(9); and
  - c. Revising paragraph (c).

The revisions and additions read as follows:

**§ 63.1331 Equipment leak provisions.**

(a) Except § 63.165 and as provided for in paragraphs (b) and (c) of this section, the owner or operator of each affected source shall comply with the requirements of subpart H of this part, with the differences noted in paragraphs (a)(1) through (13) of this section.

\* \* \* \* \*

(9) *Requirements for pressure relief devices.* Except as specified in paragraph (a)(9)(iv) of this section, the owner or operator must comply with the operating and pressure release requirements specified in paragraphs (a)(9)(i) and (ii) of this section for pressure relief devices in organic HAP gas or vapor service. Except as specified in paragraph (a)(9)(iv) of this section, the owner or operator must also comply with the pressure release management requirements specified in paragraph (a)(9)(iii) of this section for all pressure relief devices in organic HAP service.

(i) *Operating requirements.* Except during a pressure release event, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as detected by Method 21 of 40 CFR part 60, appendix A.

(ii) *Pressure release requirements.* For pressure relief devices in organic HAP gas or vapor service, comply with paragraph (a)(9)(ii)(A) or (B) of this section, as applicable.

(A) If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as detected by Method 21 of 40 CFR part 60, appendix A, no later than 5 calendar days after the pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm above background, except as provided in § 63.171.

(B) If the pressure relief device consists of or includes a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release, except as provided in § 63.171.

(iii) *Pressure release management.* Except as specified in paragraph (a)(9)(iv) of this section, pressure releases to the atmosphere from pressure relief devices in organic HAP service are prohibited, and the owner or operator must comply with the requirements specified in paragraphs (a)(9)(iii)(A) and (B) of this section for all pressure relief devices in organic HAP service.

(A) For each pressure relief device in organic HAP service, the owner or operator must equip each pressure relief device with a device(s) or use a monitoring system that is capable of:

- (1) Identifying the pressure release;
- (2) Recording the time and duration of each pressure release; and

(3) Notifying operators immediately that a pressure release is occurring. The device or monitoring system may be either specific to the pressure relief device itself or may be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

(B) If any pressure relief device in organic HAP service releases to atmosphere as a result of a pressure release event, the owner or operator must calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in § 63.1335(e)(6)(xiii). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

(iv) *Pressure relief devices routed to a control device, process, or drain system.* If a pressure relief device in organic HAP service is designed and operated to route all pressure releases through a closed vent system to a control device, process, or drain system, the owner or operator is not required to comply with paragraphs (a)(9)(i), (ii), or (iii) (if applicable) of this section. Both the closed vent system and control device (if applicable) must meet the requirements of § 63.172. The drain system (if applicable) must meet the requirements of § 63.136.

\* \* \* \* \*

(c)(1) Each affected source producing PET using a continuous TPA high viscosity multiple end finisher process shall monitor for leaks upon startup following an outage where changes have been made to equipment in gas/vapor or light liquid service. This leak check

shall consist of the introduction of hot ethylene glycol vapors into the system for a period of no less than 2 hours during which time sensory monitoring of the equipment shall be conducted.

(2) A leak is determined to be detected if there is evidence of a potential leak found by visual, audible, or olfactory means.

(3) When a leak is detected, it shall be repaired as soon as practical, but not later than 15 days after it is detected, except as provided in § 63.171.

(i) The first attempt at repair shall be made no later than 5 days after each leak is detected.

(ii) Repaired shall mean that the visual, audible, olfactory or other indications of a leak 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.

(4) When a leak is detected, the following information shall be recorded and kept for 2 years and reported in the next periodic report:

(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 first attempt to repair the leak.

(iii) The date of successful repair of the leak.

- 13. Section 63.1332 is amended by revising paragraph (f) to read as follows:

**§ 63.1332 Emissions averaging provisions.**

\* \* \* \* \*

(f) Debits and credits shall be calculated in accordance with the methods and procedures specified in paragraphs (g) and (h) of this section, respectively, and shall not include emissions during periods of monitoring excursions, as defined in § 63.1334(f). For these periods, the calculation of monthly credits and debits shall be adjusted as specified in paragraphs (f)(1) through (3) of this section.

(1) No credits would be assigned to the credit-generating emission point.

(2) Maximum debits would be assigned to the debit-generating emission point.

(3) The owner or operator may demonstrate to the Administrator that full or partial credits or debits should be assigned using the procedures in paragraph (l) of this section.

\* \* \* \* \*

- 14. Section 63.1333 is amended by:
  - a. Revising paragraphs (a) introductory text and (a)(1) introductory text; and
  - b. Adding a sentence after the third sentence of paragraph (b) introductory text and before Equation 49.

The revisions and additions read as follows:

**§ 63.1333 Additional requirements for performance testing.**

(a) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested and in accordance with § 63.7(a)(1), (a)(3), (d), (e)(2), (e)(4), (g), and (h), with the exceptions specified in paragraphs (a)(1) through (5) of this section and the additions specified in paragraphs (b) through (d) of this section.

Representative conditions exclude periods of startup and shutdown unless specified by the Administrator or an applicable subpart. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. 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. Sections 63.1314 through 63.1330 also contain specific testing requirements.

(1) Performance tests shall be conducted according to the provisions of § 63.7(e)(2), except that performance tests shall be conducted at maximum representative operating conditions achievable during one of the time periods described in paragraph (a)(1)(i) of this section, without causing any of the situations described in paragraph (a)(1)(ii) of this section to occur.

(b) \* \* \* During periods of startup or shutdown, as an alternative to using Equation 49 of this subpart, the owner or operator may divide the emission rate of total organic HAP or TOC during startup or shutdown by the rate of polymer produced from the most recent performance test associated with a production rate greater than zero to comply with the emission limit. \* \* \*

■ 15. Section 63.1334 is amended by:

- a. Revising the last sentence of paragraph (f)(1) introductory text and paragraph (f)(1)(v);
- b. Revising the last sentence of paragraph (f)(2) introductory text and paragraph (f)(2)(ii)(B);
- c. Revising the last sentence of paragraph (f)(3) introductory text and the last sentence of paragraph (f)(3)(i) introductory text;

- d. Revising the last sentence of paragraph (f)(4);
- e. Revising paragraphs (f)(5) and (f)(6);
- f. Revising the last sentence of paragraph (f)(7); and
- g. Removing paragraph (g).

The revisions read as follows:

**§ 63.1334 Parameter monitoring levels and excursions.**

\* \* \* \* \*

(f) \* \* \*

(1) \* \* \* For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart.

\* \* \* \* \*

(v) The periods listed in paragraphs (f)(1)(v)(A) and (B) of this section are not considered to be part of the period of control or recovery device operation, for the purposes of paragraphs (f)(1)(ii) and (iii) of this section.

(A) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; or

(B) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(2) \* \* \* For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart.

\* \* \* \* \*

(ii) \* \* \*

(B) Subtract the time during the periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments from the total amount of time determined in paragraph (f)(2)(ii)(A) of this section, to obtain the operating time used to determine if monitoring data are insufficient.

\* \* \* \* \*

(3) \* \* \* For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart.

(i) \* \* \* For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart.

\* \* \* \* \*

(4) \* \* \* For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart.

(5) With respect to continuous process vents complying with the temperature limits for final condensers specified in § 63.1316(b)(1)(i)(B) or (c)(1)(ii), an excursion has occurred when the daily average exit temperature exceeds the appropriate condenser temperature limit. For each excursion, the owner or

operator shall be deemed out of compliance with the provisions of this subpart. The periods listed in paragraphs (f)(5)(i) and (ii) of this section are not considered to be part of the period of operation for the condenser for purposes of determining the daily average exit temperature.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; or

(ii) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(6) With respect to new affected sources producing SAN using a batch process, an excursion has occurred when the percent reduction calculated using the procedures specified in § 63.1333(c) is less than 84 percent. For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart. The periods listed in paragraphs (f)(6)(i) and (ii) of this section are not considered to be part of the period of control or recovery device operation for purposes of determining the percent reduction.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; or

(ii) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

(7) \* \* \* For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart.

■ 16. Section 63.1335 is amended by:

- a. Revising paragraph (b)(1);
- b. Revising the first two sentences of paragraph (d) introductory text;
- c. Revising the paragraph (d)(7);
- d. Adding paragraph (d)(10);
- e. Revising the first sentence of paragraph (e) introductory text;
- f. Revising the first sentence of paragraph (e)(3) introductory text;
- g. Adding a sentence to the end of paragraph (e)(3)(i);
- h. Revising paragraph (e)(3)(v);
- i. Removing and reserving paragraph (e)(3)(viii);
- j. Revising paragraph (e)(3)(ix)(B);
- k. Adding a sentence to the end of paragraph (e)(5) introductory text;
- l. Adding paragraph (e)(5)(xii);
- m. Revising the first two sentences of paragraph (e)(6) introductory text;
- n. Revising the first sentence of paragraph (e)(6)(iii)(B);
- o. Revising paragraphs (e)(6)(iii)(E), (e)(6)(xii)(A)(1), and (e)(6)(xii)(D);
- p. Adding paragraphs (e)(6)(xiii) and (e)(9);

- q. Revising the first sentence of paragraph (h)(1)(i);
- r. Revising paragraph (h)(1)(ii);
- s. Revising the first sentence of paragraph (h)(1)(iii); and
- t. Revising paragraphs (h)(2)(iii) and (iv).

The revisions and additions read as follows:

**§ 63.1335 General recordkeeping and reporting provisions.**

\* \* \* \* \*

(b) \* \* \*

(1) *Malfunction recordkeeping and reporting.* (i) Records of malfunctions. The owner or operator shall keep the records specified in paragraphs (b)(1)(i)(A) through (C) of this section.

(A) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, and duration of each failure.

(B) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(C) Record actions taken to minimize emissions in accordance with § 63.1310(j)(4), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(ii) *Reports of malfunctions.* If a source fails to meet an applicable standard, report such events in the Periodic Report. Report the number of failures to meet an applicable standard. For each instance, report the date, time, and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

\* \* \* \* \*

(d) *Recordkeeping and documentation.* Owners or operators required to keep continuous records shall keep records as specified in paragraphs (d)(1) through (10) of this section, unless an alternative recordkeeping system has been requested and approved as specified in paragraph (g) of this section, and except as provided in paragraph (h) of this section. If a monitoring plan for storage vessels pursuant to § 63.1314(a)(9) requires continuous records, the monitoring plan shall specify which provisions, if any, of paragraphs (d)(1) through (10) of this section apply. \* \* \*

(7) Monitoring data recorded during periods identified in paragraphs (d)(7)(i)

and (ii) of this section shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device or recovery device operation when monitors are not operating.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; or

(ii) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

\* \* \* \* \*

(10) For pressure relief devices in organic HAP service, keep records of the information specified in paragraphs (d)(10)(i) through (v) of this section, as applicable.

(i) A list of identification numbers for pressure relief devices that the owner or operator elects to equip with a closed-vent system and control device, subject to the provisions in § 63.1331(a)(9)(iv).

(ii) A list of identification numbers for pressure relief devices subject to the provisions in § 63.1331(a)(9)(i).

(iii) A list of identification numbers for pressure relief devices equipped with rupture disks, subject to the provisions in § 63.1331(a)(9)(ii)(B).

(iv) The dates and results of the Method 21 of 40 CFR part 60, appendix A, monitoring following a pressure release for each pressure relief device subject to the provisions in § 63.1331(a)(9)(i) and (ii). The results shall include:

(A) The background level measured during each compliance test.

(B) The maximum instrument reading measured at each piece of equipment during each compliance test.

(v) For pressure relief devices in organic HAP service subject to § 63.1331(a)(9)(iii), keep records of each pressure release to the atmosphere, including the following information:

(A) The source, nature, and cause of the pressure release.

(B) The date, time, and duration of the pressure release.

(C) The quantity of total HAP emitted during the pressure release and the calculations used for determining this quantity.

(D) The actions taken to prevent this pressure release.

(E) The measures adopted to prevent future such pressure releases.

(e) *Reporting and notification.* In addition to the reports and notifications required by subpart A of this part as specified in Table 1 of this subpart, the owner or operator of an affected source

shall prepare and submit the reports listed in paragraphs (e)(3) through (9) of this section, as applicable. \* \* \*

(3) *Precompliance Report.* Owners or operators of affected sources requesting an extension for compliance; requesting approval to use alternative monitoring parameters, alternative continuous monitoring and recordkeeping or alternative controls; requesting approval to use engineering assessment to estimate emissions from a batch emissions episode, as described in § 63.1323(b)(6)(i)(C); or wishing to establish parameter monitoring levels according to the procedures contained in § 63.1334(c) or (d), shall submit a Precompliance Report according to the schedule described in paragraph (e)(3)(i) of this section. \* \* \*

(i) *Submittal dates.* \* \* \* To submit a Precompliance Report for the first time after the compliance date to request an extension for compliance; request approval to use alternative monitoring parameters, alternative continuous monitoring and recordkeeping or alternative controls; request approval to use engineering assessment to estimate emissions from a batch emissions episode, as described in § 63.1323(b)(6)(i)(C); or to request to establish parameter monitoring levels according to the procedures contained in § 63.1334(c) or (d), the owner or operator shall notify the Administrator at least 90 days before the planned change is to be implemented; the change shall be considered approved if the Administrator either approves the change in writing, or fails to disapprove the change in writing within 45 days of receipt.

\* \* \* \* \*

(v) The owner or operator shall report the intent to use alternative emission standards to comply with the provisions of this subpart in the Precompliance Report. The Administrator may deem alternative emission standards to be equivalent to the standard required by the subpart, under the procedures outlined in § 63.6(g).

\* \* \* \* \*

(ix) \* \* \*

(B) Supplements to the Precompliance Report may be submitted to request approval to use alternative monitoring parameters, as specified in paragraph (e)(3)(iii) of this section; to use alternative continuous monitoring and recordkeeping, as specified in paragraph (e)(3)(iv) of this section; to use alternative controls, as specified in paragraph (e)(3)(v) of this section; to use engineering assessment to estimate emissions from a batch emissions episode, as specified in paragraph

(e)(3)(vi) of this section; or to establish parameter monitoring levels according to the procedures contained in § 63.1334(c) or (d), as specified in paragraph (e)(3)(vii) of this section.

\* \* \* \* \*

(5) *Notification of Compliance Status.*

\* \* \* For pressure relief devices subject to the requirements of § 63.1331(a)(9)(iii), the owner or operator shall submit the information listed in paragraph (e)(5)(xii) of this section in the Notification of Compliance Status within 150 days after the first applicable compliance date for pressure relief device monitoring.

\* \* \* \* \*

(xii) For pressure relief devices in organic HAP service, a description of the device or monitoring system to be implemented, including the pressure relief devices and process parameters to be monitored (if applicable), a description of the alarms or other methods by which operators will be notified of a pressure release, and a description of how the owner or operator will determine the information to be recorded under paragraphs (d)(10)(v)(B) and (C) of this section (i.e., the duration of the pressure release and the methodology and calculations for determining of the quantity of total HAP emitted during the pressure release).

(6) *Periodic Reports.* For existing and new affected sources, the owner or operator shall submit Periodic Reports as specified in paragraphs (e)(6)(i) through (xiii) of this section. In addition, for equipment leaks subject to § 63.1331, with the exception of § 63.1331(c), the owner or operator shall submit the information specified in § 63.182(d) under the conditions listed in § 63.182(d), and for heat exchange systems subject to § 63.1328, the owner or operator shall submit the information specified in § 63.104(f)(2) as part of the Periodic Report required by this paragraph (e)(6). \* \* \*

(iii) \* \* \*

(B) The daily average values or batch cycle daily average values of monitored parameters for unexcused excursions, as defined in § 63.1334(f). \* \* \*

(E) The information in paragraph (b)(1)(ii) of this section for reports of malfunctions.

\* \* \* \* \*

(xii) \* \* \*

(A) \* \* \*

(1) A control or recovery device for a particular emission point or process section has one or more excursions, as defined in § 63.1334(f), in two consecutive semiannual reporting periods; or

\* \* \* \* \*

(D) After quarterly reports have been submitted for an emission point for 1 year without one or more excursions occurring (during that year), the owner or operator may return to semiannual reporting for the emission point or process section.

(xiii) For pressure relief devices in organic HAP service, Periodic Reports must include the information specified in paragraphs (e)(6)(xiii)(A) through (C) of this section.

(A) For pressure relief devices in organic HAP service subject to § 63.1331(a)(9), report confirmation that all monitoring to show compliance was conducted within the reporting period.

(B) For pressure relief devices in organic HAP gas or vapor service subject to § 63.1331(a)(9)(ii), report any instrument reading of 500 ppm above background or greater, more than 5 calendar days after the pressure release.

(C) For pressure relief devices in organic HAP service subject to § 63.1331(a)(9)(iii), report each pressure release to the atmosphere, including the following information:

(1) The source, nature, and cause of the pressure release.

(2) The date, time, and duration of the pressure release.

(3) The quantity of total HAP emitted during the pressure release and the method used for determining this quantity.

(4) The actions taken to prevent this pressure release.

(5) The measures adopted to prevent future such pressure releases.

\* \* \* \* \*

(9) *Electronic reporting.* Within 60 days after the date of completing each performance test (as defined in § 63.2), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by this subpart according to the methods specified in paragraphs (e)(9)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA-provided software, the owner or operator shall submit the results of the performance test to the EPA by direct computer-to-computer electronic transfer via EPA-provided software, unless otherwise approved by the Administrator. Owners or operators, who claim that some of the information being submitted for performance tests is confidential business information (CBI), must submit a complete file using EPA-provided software that includes information claimed to be CBI on a compact disk, flash drive, or other commonly used electronic storage media to the EPA. The electronic media

must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA by direct computer-to-computer electronic transfer via EPA-provided software.

(ii) For any performance test conducted using test methods that are not compatible with the EPA-provided software, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in § 60.4.

\* \* \* \* \*

(h) \* \* \*

(1) \* \* \*

(i) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation (e.g., a temperature reading of -200 °C on a boiler), and will alert the operator by alarm or other means. \* \* \*

(ii) The monitoring system generates, updated at least hourly throughout each operating day, a running average of the monitoring values that have been obtained during that operating day, and the capability to observe this running average is readily available to the Administrator on-site during the operating day. The owner or operator shall record the occurrence of any period meeting the criteria in paragraphs (h)(1)(ii)(A) and (B) 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.

(iii) The monitoring system is capable of detecting unchanging data during periods of operation, except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. \* \* \*

(2) \* \* \*

(iii) The owner or operator shall retain the records specified in paragraphs (h)(1)(i) through (iii) of this section, for the duration specified in this paragraph (h). For any calendar week, if compliance with paragraphs (h)(1)(i) through (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.

(iv) For purposes of paragraph (h) of this section, an excursion means that

the daily average (or batch cycle daily average) value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value.

- 17. Table 1 to Subpart JJJ of Part 63 is amended by:
  - a. Removing entries § 63.1(a)(6)–(8) and § 63.1(a)(9);
  - b. Adding entries § 63.1(a)(6) and § 63.1(a)(7)–(9);

- c. Revising entries § 63.1(c)(4), § 63.6(e), § 63.6(e)(1)(i), and § 63.6(e)(1)(ii);
- d. Adding entry § 63.6(e)(3);
- e. Removing entries § 63.6(e)(3)(i), § 63.6(e)(3)(i)(A), § 63.6(e)(3)(i)(B), § 63.6(e)(3)(i)(C), § 63.6(e)(3)(ii), § 63.6(e)(3)(iii), § 63.6(e)(3)(iv), § 63.6(e)(3)(v), § 63.6(e)(3)(vi), § 63.6(e)(3)(vii), § 63.6(e)(3)(vii)(A),

- § 63.6(e)(3)(vii)(B), § 63.6(e)(3)(vii)(C), § 63.6(e)(3)(viii), and § 63.6(e)(3)(ix);
  - f. Revising entries § 63.6(f)(1), § 63.7(e)(1), § 63.8(c)(1)(i), § 63.8(c)(1)(ii), and § 63.8(c)(1)(iii);
  - g. Adding entry § 63.10(d)(5);
  - h. Removing entries § 63.10(d)(5)(i) and § 63.10(d)(5)(ii); and
  - i. Removing footnote (a).
- The revisions and additions read as follows:

TABLE 1 TO SUBPART JJJ OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART JJJ AFFECTED SOURCES

Reference	Applies to Subpart JJJ	Explanation
* * *	* * *	* * *
§ 63.1(a)(6) .....	Yes .....	
§ 63.1(a)(7)–(9) .....	No .....	[Reserved.]
* * *	* * *	* * *
§ 63.1(c)(4) .....	No .....	[Reserved.]
* * *	* * *	* * *
§ 63.6(e) .....	Yes .....	Except as otherwise specified for individual paragraphs.
§ 63.6(e)(1)(i) .....	No .....	See § 63.1310(j)(4) for general duty requirement.
§ 63.6(e)(1)(ii) .....	No .....	
* * *	* * *	* * *
§ 63.6(e)(3) .....	No .....	
§ 63.6(f)(1) .....	No .....	
* * *	* * *	* * *
§ 63.7(e)(1) .....	No .....	See § 63.1333(a).
* * *	* * *	* * *
§ 63.8(c)(1)(i) .....	No .....	
§ 63.8(c)(1)(ii) .....	No .....	
§ 63.8(c)(1)(iii) .....	No .....	
* * *	* * *	* * *
§ 63.10(d)(5) .....	No .....	See § 63.1335(b)(1)(ii) for malfunction reporting requirements.
* * *	* * *	* * *

**Subpart MMM—[Amended]**

- 18. Section 63.1360 is amended by:
  - a. Revising paragraphs (e) heading, (e)(1) introductory text, (e)(3), and (e)(4); and
  - b. Adding paragraph (k).

The revisions and additions read as follows:

**§ 63.1360 Applicability.**

(e) *Applicability of this subpart.* (1) Each provision set forth in this subpart shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies.

(3) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with the emissions limitations of this subpart

during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment, if the shutdown would contravene emissions limitations of this subpart applicable to such items of equipment.

(4) *General duty.* At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the

Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(k) *Affirmative defense for violation of emission standards during malfunction.* In response to an action to enforce the standards set forth in this subpart, the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed if the owner or operator fails to meet their burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) *Assertion of affirmative defense.* To establish the affirmative defense in



any action to enforce such a standard, the owner or operator must timely meet the reporting requirements in paragraph (k)(2) of this section, and must prove by a preponderance of evidence that:

(i) The violation:

(A) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when a violation occurred; and

(iii) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(2) Report. The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator, with all necessary supporting documentation, that explains how it has met the requirements set forth in paragraph (k)(1) of this section. This affirmative

defense report shall be included in the first periodic compliance report, deviation report, or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

■ 19. Section 63.1361 is amended by:

■ a. Adding in alphabetical order the definition for “Affirmative defense”;

■ b. In the definition of “Group 1 process vent” by removing the word “hydrogen” and adding in its place the word “hydrogen”; and

■ c. Revising the definition for “Pesticide active ingredient or PAI”.

The revisions and additions read as follows:

§ 63.1361 Definitions.

\* \* \* \* \*

*Affirmative defense* means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

\* \* \* \* \*

*Pesticide active ingredient or PAI* means any material that is an active ingredient within the meaning of FIFRA section 2(a); that is used to produce an insecticide, herbicide, or fungicide end use pesticide product; that consists of one or more organic compounds; and that must be labeled in accordance with 40 CFR part 156 for transfer, sale, or distribution. These materials are typically described by North American Industrial Classification System (NAICS) Codes 325199 and 32532 (i.e., previously known as Standard Industrial Classification System Codes 2869 and 2879). These materials are identified by product classification codes 01, 21, 02, 04, 44, 07, 08, and 16 in block 19 on the 1999 version of EPA form 3540-16, the Pesticides Report for Pesticide-Producing Establishments. The materials represented by these codes are: insecticides; insecticide-fungicides; fungicides; herbicides; herbicide-fungicides; plant regulators; defoliant, desiccants; or multi-use active ingredients.

\* \* \* \* \*

■ 20. Section 63.1362 is amended by revising paragraph (i) to read as follows:

§ 63.1362 Standards.

\* \* \* \* \*

(i) *Opening of a safety device.* The owner or operator that opens a safety device, as defined in § 63.1361, is not exempt from applicable standards in order to avoid unsafe conditions. If opening a safety device results in the failure to meet any applicable standard, the owner or operator must still comply with the general duty to minimize emissions. If opening a safety device results in a deviation or excess emissions, such events must be reported as specified in § 63.1368(i). If the owner or operator attributes the event to a malfunction and intends to assert an affirmative defense, the owner or operator is subject to § 63.1360(k).

\* \* \* \* \*

■ 21. Section 63.1363 is amended by:

■ a. Revising the first sentence of paragraph (b) introductory text;

■ b. Revising paragraph (b)(2);

■ c. Adding paragraph (b)(4);

■ d. Revising paragraphs (g)(2)(ii)(A), (g)(2)(iii)(A), and (g)(2)(iii)(B);

■ e. Revising the second sentence of paragraph (g)(4)(v)(A);

■ f. Revising paragraph (g)(6) introductory text;

■ g. Adding paragraph (g)(11);

■ h. Adding a sentence after the first sentence of paragraph (h)(2) introductory text;

■ i. Adding paragraph (h)(2)(iv);

■ j. Revising the first sentence of paragraph (h)(3)(i);

■ k. Revising paragraph (h)(3)(ii)(f); and

■ l. Adding paragraph (h)(3)(v).

The revisions and additions read as follows:

§ 63.1363 Standards for equipment leaks.

\* \* \* \* \*

(b) *References.* The owner or operator shall comply with the provisions of subpart H of this part as specified in paragraphs (b)(1) through (3) of this section and with paragraph (b)(4) of this section for pressure relief devices. \* \* \*

(2) The owner or operator shall comply with §§ 63.164, 63.166, 63.169, 63.177, and 63.179 of subpart H of this part in their entirety, except that when these sections reference other sections of subpart H of this part, the owner or operator shall comply with the revised sections as specified in paragraphs (b)(1), (3), and (4) of this section. Section 63.164 of subpart H of this part applies to compressors. Section 63.166 of subpart H of this part applies to sampling connection systems. Section 63.169 of subpart H of this part applies to: pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure

relief devices in liquid service. Section 63.177 of subpart H of this subpart applies to general alternative means of emission limitation. Section 63.179 of subpart H of this part applies to alternative means of emission limitation for enclosed-vented process units.

\* \* \* \* \*

(4) *Requirements for pressure relief devices.* Except as specified in paragraph (b)(4)(iv) of this section, the owner or operator must comply with the operating and pressure release requirements specified in paragraphs (b)(4)(i) and (ii) of this section for pressure relief devices in organic HAP gas or vapor service. Except as specified in paragraph (b)(4)(iv) of this section, the owner or operator must also comply with the pressure release management requirements specified in paragraph (b)(4)(iii) of this section for all pressure relief devices in organic HAP service.

(i) *Operating requirements.* Except during a pressure release event, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as detected by Method 21 of 40 CFR part 60, appendix A.

(ii) *Pressure release requirements.* For pressure relief devices in organic HAP gas or vapor service, comply with paragraphs (b)(4)(ii)(A) or (B) of this section, as applicable.

(A) If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as detected by Method 21 of 40 CFR part 60, appendix A, no later than 5 calendar days after the pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm above background, except as provided in § 63.171.

(B) If the pressure relief device consists of or includes a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release, except as provided in § 63.171.

(iii) *Pressure release management.* Except as specified in paragraph (b)(4)(iv) of this section, pressure releases to the atmosphere from pressure relief devices in organic HAP service are prohibited, and the owner or operator must comply with the requirements specified in paragraphs (b)(4)(iii)(A) and (B) of this section for all pressure relief devices in organic HAP service.

(A) For each pressure relief device in organic HAP service, the owner or operator must equip each pressure relief device with a device(s) or use a monitoring system that is capable of:

- (1) Identifying the pressure release;
- (2) Recording the time and duration of each pressure release; and

(3) Notifying operators immediately that a pressure release is occurring. The device or monitoring system may be either specific to the pressure relief device itself or may be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

(B) If any pressure relief device in organic HAP service releases to atmosphere as a result of a pressure release event, the owner or operator must calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in paragraph (h)(3)(v) of this section. Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

(iv) *Pressure relief devices routed to a control device, process, or drain system.* If a pressure relief device in organic HAP service is designed and operated to route all pressure releases through a closed vent system to a control device, process, or drain system, the owner or operator is not required to comply with paragraphs (b)(4)(i), (ii), or (iii) (if applicable) of this section. Both the closed vent system and control device (if applicable) must meet the requirements of § 63.172. The drain system (if applicable) must meet the requirements of § 63.136.

\* \* \* \* \*

- (g) \* \* \*
- (2) \* \* \*
- (ii) \* \* \*

(A) A list of identification numbers for equipment that the owner or operator elects to equip with a closed-vent system and control device, subject to the provisions of paragraphs (b)(4)(iv) or (c)(7) of this section or § 63.164(h).

\* \* \* \* \*

- (iii) \* \* \*

(A) A list of identification numbers for pressure relief devices subject to the provisions in paragraph (b)(4)(i) of this section.

(B) A list of identification numbers for pressure relief devices equipped with rupture disks, subject to the provisions of paragraph (b)(4)(ii)(B) of this section.

\* \* \* \* \*

- (4) \* \* \*
- (v) \* \* \*

(A) \* \* \* The written procedures must be maintained at the plant site. \* \* \*

(6) *Records of compressor and pressure relief device compliance tests.*

The dates and results of each compliance test required for compressors subject to the provisions in § 63.164(i) and the dates and results of the Method 21 of 40 CFR part 60, appendix A, monitoring following a pressure release for each pressure relief device subject to the provisions in paragraphs (b)(4)(i) and (ii) of this section. The results shall include:

\* \* \* \* \*

(11) *Records of pressure releases to the atmosphere from pressure relief devices.* For pressure relief devices in organic HAP service subject to paragraph (b)(4)(iii) of this section, keep records of each pressure release to the atmosphere, including the following information:

- (i) The source, nature, and cause of the pressure release.
- (ii) The date, time, and duration of the pressure release.
- (iii) The quantity of total HAP emitted during the pressure release and the calculations used for determining this quantity.
- (iv) The actions taken to prevent this pressure release.
- (v) The measures adopted to prevent future such pressure releases.

(h) \* \* \*

(2) *Notification of compliance status report.* \* \* \* For pressure relief devices subject to the requirements of paragraph (b)(4)(iii) of this section, the owner or operator shall submit the information listed in paragraph (h)(2)(iv) of this section in the Notification of Compliance Status within 150 days after the first applicable compliance date for pressure relief device monitoring. \* \* \*

(iv) For pressure relief devices in organic HAP service, a description of the device or monitoring system to be implemented, including the pressure relief devices and process parameters to be monitored (if applicable), a description of the alarms or other methods by which operators will be notified of a pressure release, and a description of how the owner or operator will determine the information to be recorded under paragraphs (g)(1)(ii) and (iii) of this section (i.e., the duration of the pressure release and the methodology and calculations for determining of the quantity of total HAP emitted during the pressure release).

(3) \* \* \*

(i) A report containing the information in paragraphs (h)(3)(ii) through (v) of this section shall be submitted semiannually. \* \* \*

(ii) \* \* \*

(j) The results of all monitoring to show compliance with §§ 63.164(i) and

63.172(f) conducted within the semiannual reporting period.

\* \* \* \* \*

(v) For pressure relief devices in organic HAP service, Periodic Reports must include the information specified in paragraphs (h)(3)(v)(A) through (C) of this section.

(A) For pressure relief devices in organic HAP service subject to paragraph (b)(4) of this section, report confirmation that all monitoring to show compliance was conducted within the reporting period.

(B) For pressure relief devices in organic HAP gas or vapor service subject to paragraph (b)(4)(ii) of this section, report any instrument reading of 500 ppm above background or greater, more than 5 calendar days after the pressure release.

(C) For pressure relief devices in organic HAP service subject to paragraph (b)(4)(iii) of this section, report each pressure release to the atmosphere, including the following information:

- (1) The source, nature, and cause of the pressure release.
- (2) The date, time, and duration of the pressure release.
- (3) The quantity of total HAP emitted during the pressure release and the method used for determining this quantity.
- (4) The actions taken to prevent this pressure release.
- (5) The measures adopted to prevent future such pressure releases.

■ 22. Section 63.1364 is amended by revising paragraphs (a)(1) and (b) to read as follows:

**§ 63.1364 Compliance dates.**

(a) \* \* \*

(1) An owner or operator of an existing affected source must comply with the provisions in this subpart (except § 63.1363(b)(4)(iii)) by December 23, 2003. Compliance with the pressure relief device monitoring provisions of § 63.1363(b)(4)(iii) shall occur no later than March 27, 2017.

\* \* \* \* \*

(b) *Compliance dates for new and reconstructed sources.* An owner or operator of a new or reconstructed affected source must comply with the provisions of this subpart (except § 63.1363(b)(4)(iii)) on June 23, 1999 or upon startup, whichever is later. New or reconstructed affected sources that commenced construction after November 10, 1997, but on or before January 9, 2012, must be in compliance with the pressure relief device monitoring provisions of § 63.1363(b)(4)(iii) no later than March

27, 2017. New or reconstructed sources that commenced construction after January 9, 2012, must be in compliance with the pressure relief device monitoring provisions of § 63.1363(b)(4)(iii) upon initial startup or by March 27, 2014, whichever is later.

- 23. Section 63.1365 is amended by:
  - a. Revising paragraph (b) introductory text; and
  - b. Removing and reserving paragraph (h)(3).

The revisions read as follows:

**§ 63.1365 Test methods and initial compliance procedures.**

\* \* \* \* \*

(b) *Test methods and conditions.*

When testing is conducted to measure emissions from an affected source, the test methods specified in paragraphs (b)(1) through (9) of this section shall be used. Compliance and performance tests shall be performed under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested and as specified in paragraphs (b)(10) and (11) of this section. Representative conditions exclude periods of startup and shutdown unless specified by the Administrator or an applicable subpart. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. 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.

\* \* \* \* \*

■ 24. Section 63.1366 is amended by adding a sentence to the end of paragraph (b)(1)(ii) introductory text; and revising paragraph (b)(8).

The revisions and additions read as follows:

**§ 63.1366 Monitoring and inspection requirements.**

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

(ii) *Scrubbers.* \* \* \* Alternatively, for halogen scrubbers, the owner or operator may comply with the requirements specified in § 63.994(c).

\* \* \* \* \*

(8) *Violations.* Exceedances of parameters monitored according to the provisions of paragraphs (b)(1)(ii),

(b)(1)(iv) through (ix), and (b)(5) of this section, or excursions as defined by paragraphs (b)(7)(i) and (ii) of this section, constitute violations of the operating limit according to paragraphs (b)(8)(i) and (ii) of this section. Exceedances of the temperature limit monitored according to the provisions of paragraph (b)(1)(iii) of this section or exceedances of the outlet concentrations monitored according to the provisions of paragraph (b)(1)(x) of this section constitute violations of the emission limit according to paragraphs (b)(8)(i) and (ii) of this section. Exceedances of the outlet concentrations monitored according to the provisions of paragraph (b)(5) of this section constitute violations of the emission limit according to the provisions of paragraph (b)(8)(iii) of this section.

(i) For episodes occurring more than once per day, exceedances of established parameter limits or excursions will result in no more than one violation per operating day for each monitored item of equipment utilized in the process.

(ii) For control devices used for more than one process in the course of an operating day, exceedances or excursions will result in no more than one violation per operating day, per control device, for each process for which the control device is in service.

(iii) Exceedances of the 20 or 50 ppmv TOC outlet emission limit, averaged over the operating day, will result in no more than one violation per day per control device. Exceedances of the 20 or 50 ppmv HCl and chlorine outlet emission limit, averaged over the operating day, will result in no more than one violation per day per control device.

\* \* \* \* \*

■ 25. Section 63.1367 is amended by revising paragraphs (a)(3) and (e) to read as follows:

**§ 63.1367 Recordkeeping requirements.**

(a) \* \* \*

(3) *Records of malfunctions.* (i) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, and duration of each failure.

(ii) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(iii) Record actions taken to minimize emissions in accordance with § 63.1360(e)(4), and any corrective

actions taken to return the affected unit to its normal or usual manner of operation.

\* \* \* \* \*

(e) The owner or operator of an affected source subject to the requirements for heat exchanger systems in § 63.1362(g) shall retain the records as specified in § 63.104(f)(1)(i) through (iv).

\* \* \* \* \*

- 26. Section 63.1368 is amended by:
- a. Revising the seventh sentence of paragraph (e) introductory text;
- b. Revising paragraph (i); and
- c. Adding paragraph (p).

The revisions and additions read as follows:

**§ 63.1368 Reporting requirements.**

\* \* \* \* \*

(e) *Precompliance plan.* \* \* \* To change any of the information submitted in the Precompliance plan or to submit a Precompliance plan for the first time after the compliance date, the owner or operator shall notify the Administrator at least 90 days before the planned change is to be implemented; the change shall be considered approved if the Administrator either approves the change in writing, or fails to disapprove the change in writing within 90 days of receipt of the change. \* \* \*

(i) *Reports of malfunctions.* If a source fails to meet an applicable standard, report such events in the Periodic Report. Report the number of failures to

meet an applicable standard. For each instance, report the date, time, and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

\* \* \* \* \*

(p) *Electronic reporting.* Within 60 days after the date of completing each performance test (as defined in § 63.2), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by this subpart according to the methods specified in paragraphs (p)(1) or (2) of this section.

(1) For data collected using test methods supported by the EPA-provided software, the owner or operator shall submit the results of the performance test to the EPA by direct computer-to-computer electronic transfer via EPA-provided software, unless otherwise approved by the Administrator. Owners or operators, who claim that some of the information being submitted for performance tests is confidential business information (CBI), must submit a complete file using EPA-provided software that includes information claimed to be CBI on a compact disk, flash drive, or other commonly used electronic storage media to the EPA. The electronic media

must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA by direct computer-to-computer electronic transfer via EPA-provided software.

(2) For any performance test conducted using test methods that are not compatible with the EPA-provided software, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in § 60.4.

■ 27. Table 1 to Subpart MMM of Part 63 is amended by:

- a. Removing entry § 63.6(e);
- b. Adding entries § 63.6(e)(1)(i), § 63.6(e)(1)(ii), § 63.6(e)(1)(iii), and § 63.6(e)(3);
- c. Removing entry § 63.6(f);
- d. Adding entries § 63.6(f)(1) and § 63.6(f)(2)–(3);
- e. Revising entry § 63.7(e)(1);
- f. Removing entry § 63.8(b)(3)–(c)(3);
- g. Adding entries § 63.8(b)(3), § 63.8(c)(1)(i), § 63.8(c)(1)(ii), § 63.8(c)(1)(iii), and § 63.8(c)(2)–(3);
- h. Revising entry § 63.8(d)–(f)(3);
- i. Removing entry § 63.10(c);
- j. Adding entries § 63.10(c)(1)–(14) and § 63.10(c)(15); and
- k. Revising entry § 63.10(d)(5).

The revisions and additions read as follows:

TABLE 1 TO SUBPART MMM OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART MMM

Reference to subpart A	Applies to subpart MMM	Explanation
* * * * *	* * * * *	* * * * *
§ 63.6(e)(1)(i) .....	No .....	See § 63.1360(e)(4) for general duty requirement.
§ 63.6(e)(1)(ii) .....	No.	
§ 63.6(e)(1)(iii) .....	Yes.	
§ 63.6(e)(3) .....	No.	
§ 63.6(f)(1) .....	No.	
§ 63.6(f)(2)–(3) .....	Yes.	
* * * * *	* * * * *	* * * * *
§ 63.7(e)(1) .....	No .....	See § 63.1365(b).
* * * * *	* * * * *	* * * * *
§ 63.8(b)(3) .....	Yes.	
§ 63.8(c)(1)(i) .....	No.	
§ 63.8(c)(1)(ii) .....	Yes.	
§ 63.8(c)(1)(iii) .....	No.	
§ 63.8(c)(2)–(3) .....	Yes.	
* * * * *	* * * * *	* * * * *
§ 63.8(d)–(f)(3) .....	Yes .....	Except the last sentence of § 63.8(d)(3), which shall be replaced with “The program of corrective action should be included in the plan required under § 63.8(d)(2).” for the purposes of this subpart.
* * * * *	* * * * *	* * * * *
§ 63.10(c)(1)–(14) .....	Yes.	
§ 63.10(c)(15) .....	No.	

TABLE 1 TO SUBPART MMM OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART MMM—Continued

Reference to subpart A	Applies to subpart MMM	Explanation
* * * * *	* * * * *	* * * * *
§ 63.10(d)(5) .....	No .....	See § 63.1368(i) for malfunction reporting requirements.
* * * * *	* * * * *	* * * * *

**Subpart PPP—[Amended]**

- 28. Section 63.1420 is amended by:
- a. Revising paragraph (a)(4) introductory text;
- b. Revising paragraphs (a)(4)(iv) and (c)(1);
- c. Revising paragraph (d) introductory text;
- d. Revising the heading for paragraph (e)(8);
- e. Revising paragraph (h); and
- f. Adding paragraph (i).

The revisions and additions read as follows:

**§ 63.1420 Applicability and designation of affected sources.**

(a) \* \* \*  
 (4) The affected source also includes the emission points and components specified in paragraphs (a)(4)(i) through (vi) of this section that are associated with a PMPU (or a group of PMPUs) making up an affected source, as defined in § 63.1423.

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

\* \* \* \* \*  
 (c) \* \* \*  
 (1) Components and equipment that do not contain organic HAP or that contain organic HAP as impurities only and are located at a PMPU that is part of an affected source.

\* \* \* \* \*  
 (d) *Processes excluded from the affected source.* The processes specified in paragraphs (d)(1) through (3) of this section are not part of the affected source and are not subject to the requirements of both this subpart and subpart A of this part.

\* \* \* \* \*  
 (e) \* \* \*  
 (8) *Requirements for flexible process units that are not PMPUs.* \* \* \*

(h) *Applicability of this subpart.* (1) The emission limitations set forth in this subpart and the emission limitations referred to in this subpart shall apply at all times except during periods of nonoperation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies.

(2) The emission limitations set forth in 40 CFR part 63, subpart H, as referred to in the equipment leak provisions in § 63.1434, shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which § 63.1434 applies.

(3) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with this subpart during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment if the shutdown would contravene requirements applicable to such items of equipment.

(4) *General duty.* At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(i) *Affirmative defense for violation of emission standards during malfunction.* In response to an action to enforce the standards set forth in this subpart, the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 63.2. Appropriate penalties may be assessed if the owner or operator fails to meet their burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, the owner or operator must timely meet the reporting requirements in paragraph (i)(2) of this section, and must prove by a preponderance of evidence that:

- (i) The violation:
  - (A) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and
  - (B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when a violation occurred; and

(iii) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis

shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(2) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator, with all necessary supporting documentation, that explains how it has met the requirements set forth in paragraph (i)(1) of this section. This affirmative defense report shall be included in the first periodic compliance report, deviation report, or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

- 29. Section 63.1422 is amended by:
  - a. Revising paragraph (b);
  - b. Revising paragraph (d) introductory text;
  - c. Revising the second sentence of paragraph (d)(2)(iv);
  - d. Adding paragraph (d)(6); and
  - e. Revising paragraph (e)(1).

The revisions and additions read as follows:

**§ 63.1422 Compliance dates and relationship of this rule to existing applicable rules.**

\* \* \* \* \*

(b) New affected sources that commence construction or reconstruction after September 4, 1997 shall be in compliance with this subpart (except § 63.1434(c)(3)) upon initial start-up or by June 1, 1999, whichever is later. New affected sources that commenced construction or reconstruction after September 4, 1997, but on or before January 9, 2012, shall be in compliance with the pressure relief device monitoring requirements of § 63.1434(c)(3) by March 27, 2017. New affected sources that commence construction or reconstruction after January 9, 2012, shall be in compliance with the pressure relief device monitoring requirements of § 63.1434(c)(3) upon initial startup or by March 27, 2014, whichever is later.

\* \* \* \* \*

(d) Except as provided for in paragraphs (d)(1) through (6) of this section, existing affected sources shall be in compliance with § 63.1434 no later than December 1, 1999 unless an

extension has been granted as specified in paragraph (e) of this section.

\* \* \* \* \*

(2) \* \* \*  
 (iv) \* \* \* The request for a compliance extension shall contain the information specified in § 63.6(i)(6)(i)(A) and (B). \* \* \*

(6) Compliance with the pressure relief device monitoring provisions of § 63.1434(c)(3) shall occur no later than March 27, 2017.

(e) \* \* \*

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

\* \* \* \* \*

- 30. Section 63.1423 is amended by:
  - a. Removing the terms “Relief valve (subpart G)” and “Start-up, shutdown, and malfunction plan (subpart F)” and adding the terms “Pressure release (subpart H)” and “Pressure relief device or valve (subpart H)” in paragraph (a); and
  - b. Revising the definition for “Process vent” and adding the definition for “Affirmative defense” in alphabetical order to paragraph (b).

The revisions and additions read as follows:

**§ 63.1423 Definitions.**

\* \* \* \* \*

(b) \* \* \*

*Affirmative defense* means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

\* \* \* \* \*

*Process vent* means a point of emission from a unit operation having a gaseous stream that is discharged to the atmosphere either directly or after passing through one or more combustion, recovery, or recapture devices. A process vent from a continuous unit operation is a gaseous emission stream containing more than 0.005 weight-percent total organic HAP. A process vent from a batch unit operation is a gaseous emission stream containing more than 225 kilograms per year (500 pounds per year) of organic HAP emissions. Unit operations that may have process vents are condensers, distillation units, reactors, or other unit operations within the PMPU. Process vents exclude pressure relief device discharges, gaseous streams routed to a fuel gas system(s), and leaks from equipment regulated under § 63.1434. A gaseous emission stream is no longer considered to be a process vent after the

stream has been controlled and monitored in accordance with the applicable provisions of this subpart.

\* \* \* \* \*

- 31. Section 63.1427 is amended by:
    - a. Revising paragraph (j)(2) introductory text; and
    - b. Revising paragraph (k)(3)(ii).
- The revisions read as follows:

**§ 63.1427 Process vent requirements for processes using extended cookout as an epoxide emission reduction technique.**

\* \* \* \* \*

(j) \* \* \*

(2) The owner or operator shall maintain the records specified in paragraphs (j)(2)(i) through (v) of this section.

\* \* \* \* \*

(k) \* \* \*

(3) \* \* \*

(ii) Notification of each batch cycle when the time and duration of epoxide emissions before the end of the ECO, recorded in accordance with paragraph (j)(2)(v) of this section, exceed the time and duration of the emission episodes during the initial epoxide emission percentage reduction determination, as recorded in paragraph (j)(1)(viii) of this section.

\* \* \* \* \*

- 32. Section 63.1428 is amended by revising paragraph (h)(2)(ii) to read as follows:

**§ 63.1428 Process vent requirements for group determination of PMPUs using a nonepoxide organic HAP to make or modify the product.**

\* \* \* \* \*

(h) \* \* \*

(2) \* \* \*

(ii) Where the recalculated TRE index value is less than or equal to 1.0, or, where the TRE index value before the process change was greater than 4.0 and the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0, the owner or operator shall submit a report as specified in the process vent reporting and recordkeeping provisions in § 63.1430(i) or (j), and shall comply with the appropriate provisions in the process vent control requirements in § 63.1425 by the dates specified in § 63.1422 (the section describing compliance dates for sources subject to this subpart).

\* \* \* \* \*

- 33. Section 63.1429 is amended by:
  - a. Revising the last sentence of paragraph (c) introductory text; and
  - b. Revising the first two sentences of paragraph (d)(1).

The revisions read as follows:

**§ 63.1429 Process vent monitoring requirements.**

\* \* \* \* \*

(c) *Monitoring of bypass lines.* \* \* \* Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief devices needed for safety purposes are not subject to paragraphs (c)(1) or (2) of this section.

\* \* \* \* \*

(d) \* \* \* (1) For each parameter monitored under paragraphs (a) or (b) of this section, the owner or operator shall establish a level, defined as either a maximum or minimum operating parameter as denoted in Table 7 of this subpart (the table listing the operating parameters for which monitoring levels are required to be established for process vent streams), that indicates that the combustion, recovery, or recapture device is operated in a manner to ensure compliance with the provisions of this subpart. The level shall be established in accordance with the procedures specified in § 63.1438(a) through (d), as applicable. \* \* \*

■ 34. Section 63.1430 is amended by revising the last sentence of paragraph (d)(2)(i) to read as follows:

**§ 63.1430 Process vent reporting and recordkeeping requirements.**

\* \* \* \* \*

(d) \* \* \* (2) \* \* \* (i) \* \* \* In addition, monitoring data recorded during periods of non-operation of the process (or specific portion thereof) resulting in cessation of organic HAP emissions shall not be included in computing the daily averages.

\* \* \* \* \*

■ 35. Section 63.1434 is amended by:  
■ a. Revising paragraphs (a) and the last sentence of paragraph (d); and  
■ b. Adding paragraph (c).

The revisions read as follows:

**§ 63.1434 Equipment leak provisions.**

(a) The owner or operator of each affected source shall comply with the HON equipment leak requirements in 40 CFR part 63, subpart H for all equipment in organic HAP service, except § 63.165 and as specified in paragraphs (b) through (h) of this section.

\* \* \* \* \*

(c) *Requirements for pressure relief devices.* Except as specified in paragraph (c)(4) of this section, the owner or operator must comply with the operating and pressure release requirements specified in paragraphs

(c)(1) and (2) of this section for pressure relief devices in organic HAP gas or vapor service. Except as specified in paragraph (c)(4) of this section, the owner or operator must also comply with the pressure release management requirements specified in paragraph (c)(3) of this section for all pressure relief devices in organic HAP service.

(1) *Operating requirements.* Except during a pressure release event, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as detected by Method 21 of 40 CFR part 60, appendix A.

(2) *Pressure release requirements.* For pressure relief devices in organic HAP gas or vapor service, comply with paragraphs (c)(2)(i) or (ii) of this section, as applicable.

(i) If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as detected by Method 21 of 40 CFR part 60, appendix A, no later than 5 calendar days after the pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm above background, except as provided in § 63.171.

(ii) If the pressure relief device consists of or includes a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release, except as provided in § 63.171.

(3) *Pressure release management.* Except as specified in paragraph (c)(4) of this section, pressure releases to the atmosphere from pressure relief devices in organic HAP service are prohibited, and the owner or operator must comply with the requirements specified in paragraphs (c)(3)(i) and (ii) of this section for all pressure relief devices in organic HAP service.

(i) For each pressure relief device in organic HAP service, the owner or operator must equip each pressure relief device with a device(s) or use a monitoring system that is capable of:

- (A) Identifying the pressure release;
- (B) Recording the time and duration of each pressure release; and

(C) Notifying operators immediately that a pressure release is occurring. The device or monitoring system may be either specific to the pressure relief device itself or may be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the

pressure relief valve stem, flow monitor, or pressure monitor.

(ii) If any pressure relief device in organic HAP service releases to atmosphere as a result of a pressure release event, the owner or operator must calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in § 63.1439(e)(6)(ix). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

(4) *Pressure relief devices routed to a control device, process, or drain system.* If a pressure relief device in organic HAP service is designed and operated to route all pressure releases through a closed vent system to a control device, process, or drain system, the owner or operator is not required to comply with paragraphs (c)(1), (2), or (3) (if applicable) of this section. Both the closed vent system and control device (if applicable) must meet the requirements of § 63.172. The drain system (if applicable) must meet the requirements of § 63.136.

(d) \* \* \* The Initial Notification shall be submitted no later than June 1, 2000 for existing sources.

\* \* \* \* \*

■ 36. Section 63.1437 is amended by revising paragraph (a) introductory text and the first sentence of paragraph (a)(1) introductory text.

The revisions read as follows:

**§ 63.1437 Additional requirements for performance testing.**

(a) Performance testing shall be conducted in accordance with § 63.7(a)(1), (a)(3), (d), (e)(2), (e)(4), (g), and (h), with the exceptions specified in paragraphs (a)(1) through (4) of this section and the additions specified in paragraph (b) of this section. Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown unless specified by the Administrator or an applicable subpart. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. 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.

(1) Performance tests shall be conducted according to the general provisions' performance testing requirements in § 63.7(e)(2), except that for all emission sources except process vents from batch unit operations, performance tests shall be conducted during maximum representative operating conditions for the process achievable during one of the time periods described in paragraph (a)(1)(i) of this section, without causing any of the situations described in paragraphs (a)(1)(ii) or (iii) of this section to occur.

- 37. Section 63.1438 is amended by:
  - a. Revising paragraphs (e)(1) introductory text and (e)(2);
  - b. Revising paragraphs (f)(1)(v), (f)(3)(ii)(B), and the last sentence of paragraph (f)(4); and
  - c. Removing paragraph (g).

The revisions read as follows:

**§ 63.1438 Parameter monitoring levels and excursions.**

\* \* \* \* \*

(e) \* \* \*

(1) Each excursion, as defined in paragraphs (f)(1)(i), (f)(2)(i)(A), (f)(2)(ii), (f)(3)(i), and (f)(4) of this section, constitutes a violation of the provisions of this subpart in accordance with paragraphs (e)(1)(i), (ii), or (iii) of this section.

\* \* \* \* \*

(2) Each excursion, as defined in paragraphs (f)(1)(ii), (f)(1)(iii), (f)(2)(i)(B), and (f)(3)(ii) of this section constitutes a violation of the operating limit.

(f) \* \* \*

(1) \* \* \*

(v) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies, are not considered to be part of the period of combustion, recovery, or recapture device operation, for the purposes of paragraphs (f)(1)(ii) and (iii) of this section.

\* \* \* \* \*

(3) \* \* \*

(ii) \* \* \*

(B) Subtract the time during the periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies, from the total amount of time determined above in paragraph (f)(3)(ii)(A) of this section, to obtain the operating time used to determine if monitoring data are insufficient.

\* \* \* \* \*

(4) \* \* \* For each excursion, the owner or operator shall be deemed out of compliance with the provisions of this subpart, in accordance with paragraph (e) of this section.

\* \* \* \* \*

- 38. Section 63.1439 is amended by:
  - a. Revising paragraphs (b)(1) and (c);
  - b. Revising the first two sentences of paragraph (d) introductory text;
  - c. Revising paragraph (d)(7);
  - d. Adding paragraph (d)(10);
  - e. Revising the first sentence of paragraph (e) introductory text;
  - f. Revising the last sentence of paragraph (e)(3) introductory text;
  - g. Revising the first sentence of paragraph (e)(4) introductory text;
  - h. Adding a sentence to the end of paragraph (e)(4)(i);
  - i. Revising the last sentence of paragraph (e)(4)(ii);
  - j. Revising paragraph (e)(4)(v);
  - k. Removing and reserving paragraph (e)(4)(vi);
  - l. Revising paragraph (e)(4)(vii)(B);
  - m. Adding a sentence to the end of paragraph (e)(5) introductory text;
  - n. Adding a sentence to the end of paragraph (e)(5)(vii);
  - o. Adding paragraph (e)(5)(viii);
  - p. Revising the first sentence of paragraph (e)(6) introductory text;
  - q. Revising paragraphs (e)(6)(iii)(D)(3), (e)(6)(iii)(E), (e)(6)(viii)(A)(1), and (e)(6)(viii)(D);
  - r. Adding paragraphs (e)(6)(ix) and (e)(9);
  - s. Revising the first sentence of paragraph (h)(1)(i);
  - t. Revising paragraph (h)(1)(ii);
  - u. Revising the first sentence of paragraph (h)(1)(iii); and
  - v. Revising paragraphs (h)(2)(iii) and (h)(2)(iv).

The revisions and additions read as follows:

**§ 63.1439 General recordkeeping and reporting provisions.**

\* \* \* \* \*

(b) \* \* \*

(1) *Malfunction recordkeeping and reporting.* (i) *Records of malfunctions.* The owner or operator shall keep the records specified in paragraphs (b)(1)(i)(A) through (C) of this section.

(A) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, and duration of each failure.

(B) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(C) Record actions taken to minimize emissions in accordance with § 63.1420(h)(4), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(ii) *Reports of malfunctions.* If a source fails to meet an applicable standard, report such events in the Periodic Report. Report the number of failures to meet an applicable standard. For each instance, report the date, time, and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

\* \* \* \* \*

(c) *Subpart H requirements.* The owner or operator of an affected source shall comply with the HON equipment leak reporting and recordkeeping requirements in 40 CFR part 63, subpart H, except as specified in § 63.1434(b) through (h).

(d) *Recordkeeping and documentation.* The owner or operator required to keep continuous records shall keep records as specified in paragraphs (d)(1) through (10) of this section, unless an alternative recordkeeping system has been requested and approved as specified in paragraph (g) of this section, and except as provided in paragraph (h) of this section. If a monitoring plan for storage vessels pursuant to § 63.1432(i) requires continuous records, the monitoring plan shall specify which provisions, if any, of paragraphs (d)(1) through (10) of this section apply.

(7) Monitoring data recorded during periods identified in paragraphs (d)(7)(i) and (ii) of this section shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or combustion, recovery, or recapture device operation when monitors are not operating.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; or

(ii) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

\* \* \* \* \*

(10) For pressure relief devices in organic HAP service, keep records of the information specified in paragraphs (d)(10)(i) through (v) of this section, as applicable.

(i) A list of identification numbers for pressure relief devices that the owner or



operator elects to equip with a closed-vent system and control device, subject to the provisions in § 63.1434(c)(4).

(ii) A list of identification numbers for pressure relief devices subject to the provisions in § 63.1434(c)(1).

(iii) A list of identification numbers for pressure relief devices equipped with rupture disks, subject to the provisions in § 63.1434(c)(2)(ii).

(iv) The dates and results of the Method 21 of 40 CFR part 60, appendix A, monitoring following a pressure release for each pressure relief device subject to the provisions in § 63.1434(c)(1) and (2). The results shall include:

(A) The background level measured during each compliance test.

(B) The maximum instrument reading measured at each piece of equipment during each compliance test.

(v) For pressure relief devices in organic HAP service subject to § 63.1434(c)(3), keep records of each pressure release to the atmosphere, including the following information:

(A) The source, nature, and cause of the pressure release.

(B) The date, time, and duration of the pressure release.

(C) The quantity of total HAP emitted during the pressure release and the calculations used for determining this quantity.

(D) The actions taken to prevent this pressure release.

(E) The measures adopted to prevent future such pressure releases.

(e) *Reporting and notification.* In addition to the reports and notifications required by 40 CFR part 63, subpart A, as specified in this subpart, the owner or operator of an affected source shall prepare and submit the reports listed in paragraphs (e)(3) through (9) of this section, as applicable. \* \* \*

(3) \* \* \* The General Provisions' Initial Notification requirements in § 63.9(b)(2) and (3) shall not apply for the purposes of this subpart.

(4) *Precompliance Report.* The owner or operator of an affected source requesting an extension for compliance; requesting approval to use alternative monitoring parameters, alternative continuous monitoring and recordkeeping, or alternative controls; or requesting approval to establish parameter monitoring levels according to the procedures contained in § 63.1438(c) or (d) shall submit a Precompliance Report according to the schedule described in paragraph (e)(4)(i) of this section. \* \* \*

(i) \* \* \* To submit a Precompliance Report for the first time after the

compliance date to request an extension for compliance; request approval to use alternative monitoring parameters, alternative continuous monitoring and recordkeeping, or alternative controls; or request approval to establish parameter monitoring levels according to the procedures contained in § 63.1438(c) or (d), the owner or operator shall notify the Administrator at least 90 days before the planned change is to be implemented; the change shall be considered approved if the Administrator either approves the change in writing, or fails to disapprove the change in writing within 45 days of receipt.

(ii) \* \* \* The request for a compliance extension shall include the data outlined in the General Provisions' compliance requirements in § 63.6(i)(6)(i)(A) and (B), as required in § 63.1422(e)(1).

(v) The owner or operator shall report the intent to use an alternative emission standard to comply with the provisions of this subpart in the Precompliance Report. The Administrator may deem an alternative emission standard to be equivalent to the standard required by the subpart, under the procedures outlined in the General Provisions' requirements for use of an alternative nopopacity emission standard, in § 63.6(g).

(B) Supplements to the Precompliance Report may be submitted to request approval to use alternative monitoring parameters, as specified in paragraph (e)(4)(iii) of this section; to use alternative continuous monitoring and recordkeeping, as specified in paragraph (e)(4)(iv) of this section; or to use alternative controls, as specified in paragraph (e)(4)(v) of this section.

(5) \* \* \* For pressure relief devices subject to the requirements of § 63.1434(c)(3), the owner or operator shall submit the information listed in paragraph (e)(5)(viii) of this section in the Notification of Compliance Status within 150 days after the first applicable compliance date for pressure relief device monitoring.

(vii) \* \* \* An owner or operator who transfers a Group 1 process vent for disposal pursuant to § 63.113(i) shall include in the Notification of Compliance Status the name and location of the transferee, and the identification of the Group 1 process vent.

(viii) For pressure relief devices in organic HAP service, a description of the device or monitoring system to be implemented, including the pressure relief devices and process parameters to be monitored (if applicable), a description of the alarms or other methods by which operators will be notified of a pressure release, and a description of how the owner or operator will determine the information to be recorded under paragraphs (d)(10)(v)(B) and (C) of this section (i.e., the duration of the pressure release and the methodology and calculations for determining of the quantity of total HAP emitted during the pressure release).

(6) *Periodic Reports.* For existing and new affected sources, the owner or operator shall submit Periodic Reports as specified in paragraphs (e)(6)(i) through (ix) of this section. \* \* \*

(3) For gas streams sent for disposal pursuant to § 63.113(i) or for process wastewater streams sent for treatment pursuant to § 63.132(g), reports of changes in the identity of the treatment facility or transferee.

(E) The information in paragraph (b)(1)(ii) of this section for reports of malfunctions.

(viii) \* \* \*  
(A) \* \* \*

(1) A combustion, recovery, or recapture device for a particular emission point or process section has one or more excursions, as defined in § 63.1438(f), in two consecutive semiannual reporting periods; or

(D) After quarterly reports have been submitted for an emission point for 1 year without one or more excursions occurring (during that year), the owner or operator may return to semiannual reporting for the emission point or process section.

(ix) For pressure relief devices in organic HAP service, Periodic Reports must include the information specified in paragraphs (e)(6)(ix)(A) through (C) of this section.

(A) For pressure relief devices in organic HAP service subject to § 63.1434(c), report confirmation that all monitoring to show compliance was conducted within the reporting period.

(B) For pressure relief devices in organic HAP gas or vapor service subject to § 63.1434(c)(2), report any instrument reading of 500 ppm above background or greater, more than 5 calendar days after the pressure release.

(C) For pressure relief devices in organic HAP service subject to

§ 63.1434(c)(3), report each pressure release to the atmosphere, including the following information:

- (1) The source, nature, and cause of the pressure release.
- (2) The date, time, and duration of the pressure release.
- (3) The quantity of total HAP emitted during the pressure release and the method used for determining this quantity.
- (4) The actions taken to prevent this pressure release.
- (5) The measures adopted to prevent future such pressure releases.

(9) *Electronic reporting.* Within 60 days after the date of completing each performance test (as defined in § 63.2), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by this subpart according to the methods specified in paragraphs (e)(9)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA-provided software, the owner or operator shall submit the results of the performance test to the EPA by direct computer-to-computer electronic transfer via EPA-provided software, unless otherwise approved by the Administrator. Owners or operators, who claim that some of the information being submitted for performance tests is confidential business information (CBI), must submit a complete file using EPA-provided software that includes information claimed to be CBI on a compact disk, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same

file with the CBI omitted must be submitted to the EPA by direct computer-to-computer electronic transfer via EPA-provided software.

(ii) For any performance test conducted using test methods that are not compatible with the EPA-provided software, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in § 60.4.

\* \* \* \* \*

(h) \* \* \*

(1) \* \* \*

(i) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation (e.g., a temperature reading of -200 °C on a boiler), and will alert the operator by alarm or other means. \* \* \*

(ii) The monitoring system generates, updated at least hourly throughout each operating day, a running average of the monitoring values that have been obtained during that operating day, and the capability to observe this running average is readily available to the Administrator on-site during the operating day. The owner or operator shall record the occurrence of any period meeting the criteria in paragraphs (h)(1)(ii)(A) and (B) 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.

(iii) The monitoring system is capable of detecting unchanging data during periods of operation, except in circumstances where the presence of unchanging data are the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. \* \* \*

(2) \* \* \*

(iii) The owner or operator shall retain the records specified in paragraph (h)(1) of this section, for the duration specified in paragraph (h) of this section. For any calendar week, if compliance with paragraphs (h)(1)(i) through (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.

(iv) For the purposes of paragraph (h) of this section, an excursion means that the daily average of monitoring data for a parameter is greater than the maximum, or less than the minimum established value.

■ 39. Table 1 to Subpart PPP of Part 63 is amended by:

- a. Removing entries 63.1(a)(6)-(8) and 63.1(a)(9);
- b. Adding entries 63.1(a)(6) and 63.1(a)(7)-(9);
- c. Revising entries 63.1(c)(4), 63.6(e), 63.6(e)(1)(i), and 63.6(e)(1)(ii);
- d. Adding entry 63.6(e)(3);
- e. Removing entries 63.6(e)(3)(i), 63.6(e)(3)(i)(A), 63.6(e)(3)(i)(B), 63.6(e)(3)(i)(C), 63.6(e)(3)(ii), 63.6(e)(3)(iii), 63.6(e)(3)(iv), 63.6(e)(3)(v), 63.6(e)(3)(vi), 63.6(e)(3)(vii), 63.6(e)(3)(vii)(A), 63.6(e)(3)(vii)(B), 63.6(e)(3)(vii)(C), 63.6(e)(3)(viii), and 63.6(e)(3)(ix);
- f. Revising entries 63.6(f)(1), 63.7(e)(1), 63.8(c)(1)(i), 63.8(c)(1)(ii), and 63.8(c)(1)(iii);
- g. Adding entry 63.10(d)(5);
- h. Removing entries 63.10(d)(5)(i) and 63.10(d)(5)(ii); and
- i. Removing footnote (a).

The revisions and additions read as follows:

TABLE 1 OF SUBPART PPP OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART PPP AFFECTED SOURCES

Reference	Applies to subpart PPP	Explanation
63.1(a)(6) .....	Yes. ....	
63.1(a)(7)-(9) .....	No .....	Reserved.
63.1(c)(4) .....	No .....	Reserved.
63.6(e) .....	Yes .....	Except as otherwise specified for individual paragraphs. See § 63.1420(h)(4) for general duty requirement.
§ 63.6(e)(1)(i) .....	No .....	
§ 63.6(e)(1)(ii) .....	No .....	
§ 63.6(e)(3) .....	No .....	
§ 63.6(f)(1) .....	No .....	

TABLE 1 OF SUBPART PPP OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART PPP AFFECTED SOURCES—Continued

Reference	Applies to subpart PPP	Explanation
* * *	* * *	* * *
§ 63.7(e)(1) .....	No .....	See § 63.1437(a).
* * *	* * *	* * *
§ 63.8(c)(1)(i) .....	No .....	
§ 63.8(c)(1)(ii) .....	No .....	
§ 63.8(c)(1)(iii) .....	No .....	
* * *	* * *	* * *
§ 63.10(d)(5) .....	No .....	See § 63.1439(b)(1)(ii) for malfunction reporting requirements.
* * *	* * *	* * *

■ 40. Table 2 to Subpart PPP of part 63 is amended by:  
 ■ a. Revising the title;

■ b. Adding entries 63.107 and 63.153; and  
 ■ c. Revising entry 63.160–63.182.

The revisions and additions read as follows:

TABLE 2 OF SUBPART PPP OF PART 63—APPLICABILITY OF HON PROVISIONS TO SUBPART PPP AFFECTED SOURCES

Reference	Applies to subpart PPP	Explanation	Applicable section of subpart PPP
Subpart F:			
* * *	* * *	* * *	* * *
63.107 .....	No .....		
* * *	* * *	* * *	* * *
Subpart G:			
* * *	* * *	* * *	* * *
63.153 .....	No .....		63.1421
Subpart H:			
63.160–63.182 .....	Yes .....	Subpart PPP affected sources shall comply with all requirements of subpart H, with the differences noted in 63.1422(d), 63.1422(h), and 63.1434.	63.1434
* * *	* * *	* * *	* * *

■ 41. Table 7 to Subpart PPP of part 63 is amended by revising the title to read as follows:

Table 7 of Subpart PPP of Part 63—  
 Operating Parameters for Which  
 Monitoring Levels Are Required To

Be Established for Process Vent  
 Streams

\* \* \* \* \*  
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