Board of Directors of Company A, the Board resolves to sell all the assets of Company A to Company B. Under the asset sale agreement with Company B, Company B will not assume Plan A; Company A expects to undertake a standard termination of Plan A. Company A is required to report a liquidation event 30 days after the Board resolved to sell the assets of Company A.

■ 25. Amend § 4043.31 by revising paragraph (c)(6) to read as follows:

§ 4043.31 Extraordinary dividend or stock redemption.

* * * * *

(c) * * *

(6) *Public company.* Notice under this section is waived if any contributing sponsor of the plan before the transaction, or the parent company within a parent-subsidiary controlled group of any such contributing sponsor, is a public company and timely files a SEC Form 8–K disclosing the event under an item of the Form 8–K other than under Item 2.02 (Results of Operations and Financial Condition) or in financial statements under Item 9.01 (Financial Statements and Exhibits).

■ 26. Amend § 4043.32 by revising paragraph (c)(4) to read as follows:

§ 4043.32 Transfer of benefit liabilities.

* * * * *

(c) * * *

(4) *Public company.* Notice under this section is waived if any contributing sponsor of the plan before the transaction, or the parent company within a parent-subsidiary controlled group of any such contributing sponsor, is a public company and timely files a SEC Form 8–K disclosing the event under an item of the Form 8–K other than under Item 2.02 (Results of Operations and Financial Condition) or in financial statements under Item 9.01 (Financial Statements and Exhibits).

■ 27. Amend § 4043.35 by adding paragraph (b)(3) to read as follows:

§ 4043.35 Insolvency or similar settlement.

* * * * *

(b) * * *

(3) *Liquidation event.* Notice under paragraph (a)(3) or (4) of this section is waived if reporting is also required under § 4043.30 and notice has been provided timely to PBGC for the same event under that section.

§ 4043.81 [Amended]

■ 28. Amend § 4043.81 by removing paragraph (c).

PART 4233—PARTITIONS OF ELIGIBLE MULTIEMPLOYER PLANS

■ 29. The authority citation for part 4233 continues to read as follows:

Authority: 29 U.S.C. 1302(b)(3), 1413.

Appendix A to Part 4233—[Amended]

■ 30. Amend the two model notices in appendix A by removing the phone number ''(202) 326–4000 x6535'' under PBGC Contact Information after ''Phone:'' and adding in its place ''(202) 229–6047'', and by removing the phone number ''(202) 326–4488'' under PBGC Participant and Plan Sponsor Advocate Contact Information after ''Phone:'' and adding in its place ''(202) 229–4448''.

Issued in Washington, DC.

Gordon Hartogensis,

Director, Pension Benefit Guaranty Corporation.

[FR Doc. 2020–01628 Filed 2–3–20; 8:45 am]

BILLING CODE 7709–02–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2010–0682; FRL 10004–55–OAR]

RIN 2016–AT18

National Emission Standards for Hazardous Air Pollutants: Petroleum Refinery Sector

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action sets forth the U.S. Environmental Protection Agency's (EPA's) decision on aspects of the Agency's proposed reconsideration of the December 1, 2015, final rule: Petroleum Refinery Sector Residual Risk and Technology Review (RTR) and New Source Performance Standards (NSPS). This action also finalizes proposed amendments to clarify a compliance issue raised by stakeholders subject to the rule, to correct referencing errors, and to correct publication errors associated with amendments to the final rule which were published on November 26, 2018.

DATES: This final action is effective on February 4, 2020.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2010–0682. All documents in the docket are listed on the *https://www.regulations.gov/* website. Although listed in the index, some information is not publicly available, (*e.g.,* confidential business information 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 form. Publicly available docket materials are available either electronically through *https://www.regulations.gov/,* or in hard copy at the EPA Docket Center, WJC West Building, Room Number 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 EPA Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, please contact Ms. Brenda Shine, Sector Policies and Programs Division (E143–01), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–3608; fax number: (919) 541–0516; email address: *shine.brenda@epa.gov.* For information about the applicability of the national emission standards for hazardous air pollutants (NESHAP) to a particular entity, contact Ms. Maria Malave, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, WJC South Building, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: (202) 564–7027; fax number: (202) 564–0050; and email address: *malave.maria@epa.gov.*

SUPPLEMENTARY INFORMATION: *Acronyms and abbreviations.* A number of acronyms and abbreviations are used in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined:

AEGL acute exposure guideline level
CAA Clean Air Act
CFR Code of Federal Regulations
DCU delayed coking unit
EPA Environmental Protection Agency
ERPG emergency response planning guideline
FCCU fluid catalytic cracking unit
HAP hazardous air pollutants
ICR information collection request
lb/day pounds per day
LEL lower explosive limit
MACT maximum achievable control technology
MIR maximum individual risk
MPV miscellaneous process vent
NESHAP national emissions standards for hazardous air pollutants
NSPS new source performance standards

NTTAA National Technology Transfer and Advancement Act
OAQPS Office of Air Quality Planning and Standards
OECA Office of Enforcement and Compliance Assurance
OMB Office of Management and Budget
OSHA Occupational Safety and Health Administration
PB–HAP hazardous air pollutants known to be persistent and bio-accumulative in the environment
PRA Paperwork Reduction Act
PRD pressure relief device
psig pounds per square inch gauge
PSM Process Safety Management
PTE potential to emit
RCA/CAA root cause analysis and corrective action analysis
REL reference exposure level
RFA Regulatory Flexibility Act
RMP Risk Management Plan
RTR residual risk and technology review
SRU sulfur recovery unit
$\mu g/m^3$ micrograms per cubic meter
UMRA Unfunded Mandates Reform Act
VOC volatile organic compounds
°F degrees Fahrenheit

Organization of this document. The information in this preamble is organized as follows:

I. General Information

A. What is the source of authority for the reconsideration action?

The statutory authority for this action is provided by sections 112, 301, and 307(d)(7)(B) of the Clean Air Act (CAA) (42 U.S.C. 7412, 7601, and 7607(d)(7)(B)).

B. Does this action apply to me?

Categories and entities potentially regulated by this action are shown in Table 1 of this preamble.

TABLE 1—INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS FINAL ACTION

NESHAP and source category	NAICS [1] code
Petroleum Refining Industry	324110

[1] North American Industry Classification System.

Table 1 of this preamble is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source categories listed. To determine whether your facility is affected, you should examine the applicability criteria in the appropriate NESHAP. If you have any questions regarding the applicability of any aspect of these NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

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

The docket number for this final action regarding the sector rules for the Petroleum Refinery source category is Docket ID No. EPA–HQ–OAR–2010–0682.

In addition to being available in the docket, an electronic copy of this document will also be available on the internet. Following signature by the EPA Administrator, the EPA will post a copy of this final action at *https://www.epa.gov/stationary-sources-air-pollution/petroleum-refinery-sector-risk-and-technology-review-and-new-source.* Following publication in the **Federal Register**, the EPA will post the **Federal Register** version and key technical documents on this same website.

D. Judicial Review and Administrative Reconsideration

Under CAA section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit (the Court) by April 6, 2020. Under CAA section 307(d)(7)(B), only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Note, 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 these requirements.

This section also provides a mechanism for the EPA to reconsider the rule ''[i]f the person raising an objection can demonstrate to the Administrator 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 should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, WJC West 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

The EPA promulgated NESHAP pursuant to CAA sections 112(d)(2) and (3) for petroleum refineries located at major sources in three separate rules. These standards are also referred to as maximum achievable control technology (MACT) standards. The first rule, promulgated on August 18, 1995, and codified at 40 CFR part 63, subpart CC (also referred to as Refinery MACT 1), regulates miscellaneous process vents, storage vessels, wastewater, equipment leaks, gasoline loading racks, marine tank vessel loading, and heat

exchange systems. The second rule, promulgated on April 11, 2002, and codified at 40 CFR part 63, subpart UUU (also referred to as Refinery MACT 2), regulates process vents on catalytic cracking units (CCUs, including fluid catalytic cracking units (FCCUs)), catalytic reforming units, and sulfur recovery units (SRUs). The third rule, promulgated on October 28, 2009, amended Refinery MACT 1 to include MACT standards for heat exchange systems, which were not originally addressed in Refinery MACT 1. This same rulemaking included updating cross-references to the General Provisions in 40 CFR part 63.

The EPA conducted a residual risk and technology review (RTR) of Refinery MACT 1 and 2, publishing proposed amendments on June 30, 2014 (June 2014 proposal). These proposed amendments included technical corrections and clarifications raised in a 2008 industry petition for reconsideration of NSPS for Petroleum Refineries (40 CFR part 60, subpart Ja). After soliciting, receiving, and addressing public comments, the EPA published final amendments on December 1, 2015. The December 2015 final rule (December 2015 rule) included a determination pursuant to CAA section 112(f) that the remaining risk after promulgation of the revised NESHAP is acceptable and that the standards provide an ample margin of safety to protect public health and prevent an adverse environmental effect. The December 2015 rule also finalized changes to Refinery MACT 1 and 2 pursuant to CAA section 112(d)(2) and (3), notably revising the requirements for flares and pressure relief devices (PRDs), removing startup, shutdown, and malfunction exemptions, and adding requirements for delayed cokers. Additional amendments were also promulgated pursuant to CAA section 112(d)(6) to require a fenceline monitoring work practice standard as an advancement in the way fugitive emissions are managed and mitigated. The December 2015 rule also finalized technical corrections and clarifications to Refinery NSPS subparts J and Ja to address issues raised by the American Petroleum Institute (API) in their 2008 petition for reconsideration of the final NSPS Ja rule that had not been previously addressed. These included corrections and clarifications to provisions for sulfur recovery plants, performance testing, and control device operating parameters.

The EPA received three separate administrative petitions for reconsideration of the December 2015 rule. Two petitions were jointly filed by the API and American Fuel and Petrochemical Manufacturers (AFPM). The first of these petitions was filed on January 19, 2016, and requested that the EPA reconsider the maintenance vent provisions in Refinery MACT 1 for sources constructed on or before June 30, 2014; the alternate startup, shutdown, or hot standby standards for FCCUs constructed on or before June 30, 2014, in Refinery MACT 2; the alternate startup and shutdown for SRUs constructed on or before June 30, 2014, in Refinery MACT 2; and the new CRUs purging limitations in Refinery MACT 2. The request pertained to providing and/or clarifying the compliance time for these sources. Based on this request and additional information received, the EPA issued a proposal on February 9, 2016 (81 FR 6814), and a final rule on July 13, 2016 (81 FR 45232), fully responding to the January 19, 2016, petition for reconsideration.

The second petition from API and AFPM was filed on February 1, 2016, and outlined a number of specific issues related to the work practice standards for PRDs and flares, and the alternative water overflow provisions for delayed coking units (DCUs), as well as a number of other specific issues on other aspects of the rule. The third petition was filed on February 1, 2016, by Earthjustice on behalf of Air Alliance Houston, California Communities Against Toxics, the Clean Air Council, the Coalition for a Safe Environment, the Community In-Power & Development Association, the Del Amo Action Committee, the Environmental Integrity Project, the Louisiana Bucket Brigade, the Sierra Club, the Texas Environmental Justice Advocacy Services, and Utah Physicians for a Healthy Environment. The Earthjustice petition claimed that several aspects of the revisions to Refinery MACT 1 were not proposed, and, thus the public was precluded from commenting on them during the public comment period, including: (1) Work practice standards for PRDs and flares; (2) alternative water overflow provisions for DCUs; (3) reduced monitoring provisions for fenceline monitoring; and (4) adjustments to the risk assessment to account for these new work practice standards. On June 16, 2016, the EPA sent letters to petitioners granting reconsideration on issues where petitioners claimed they had not been provided an opportunity to comment. These petitions and letters granting reconsideration are available for review in the rulemaking docket (see Docket ID Item Nos. EPA–HQ–OAR–2010–0682–0860, EPA–HQ–OAR–2010–0682–0891, and EPA–HQ–OAR–2010–0682–0892).

On October 18, 2016 (81 FR 71661), the EPA proposed for public comment the issues for which reconsideration was granted in the June 16, 2016, letters. The EPA solicited public comment on five issues in the proposal: (1) The work practice standards for PRDs; (2) the work practice standards for emergency flaring events; (3) the assessment of risk as modified based on implementation of these PRD and emergency flaring work practice standards; (4) the alternative work practice standards for DCUs employing the water overflow design; and (5) the provision allowing refineries to reduce the frequency of fenceline monitoring at sampling locations that consistently record benzene concentrations below 0.9 micrograms per cubic meter ($\mu g/m^3$). In that notice, the EPA also proposed two minor clarifying amendments to correct a cross referencing error and to clarify that facilities complying with overlapping equipment leak provisions must still comply with the PRD work practice standards in the December 2015 rule. We received public comments from 17 parties. Copies of all comments submitted are available at the EPA Docket Center Public Reading Room. Comments are also available electronically through *https://www.regulations.gov/* by searching Docket ID No. EPA–HQ–OAR–2010–0682.

In section III of this preamble, the EPA sets forth its final decisions on each of the five reconsideration items included in the October 18, 2016 (81 FR 71661), proposed notice of reconsideration (October 2016 proposed notice of reconsideration). Additionally, section III of this preamble summarizes the history of each of the five reconsideration items as well as the two proposed clarifying amendments included in the proposed notice of reconsideration, summarizes the public comments received on the proposed notice of reconsideration, and presents the EPA's responses to these comments.

As described in section III.D of this preamble, specific to reconsideration item (4), the alternative work practice standards for DCUs employing the water overflow design, the EPA proposed and finalized amendments to the DCU water overflow provisions to address comments on the October 2016 proposed notice of reconsideration. On April 10, 2018 (April 2018 proposal) (83 FR 15458), the EPA proposed a number of technical amendments to Refinery MACT 1 and 2 and the Refinery NSPS, which included a proposed requirement to use a vapor disengaging device for

DCUs using the water overflow provisions. On November 26, 2018, (November 2018 rule) (83 FR 60696), the EPA finalized the technical amendments from the April 2018 proposal, including requirements for DCUs using the water overflow provisions, after considering public comments received on the April 2018 proposal.

III. Final Action

A. Issue 1: Work Practice Standard for PRDs

1. What is the history of work practice standards for PRDs?

In the June 2014 proposal, the EPA proposed to revise Refinery MACT 1 to establish operating and pressure release requirements that apply to all PRDs and to prohibit atmospheric releases of hazardous air pollutants (HAP) from PRDs. To ensure compliance, we proposed to require that sources monitor PRDs using a system that is capable of recording the time and duration of each pressure release and notifying operators that a pressure release has occurred. Many commenters suggested that a prohibition on atmospheric PRD releases did not reflect the manner in which the best performing facilities operate, was unachievable and/or very costly, and would have negative environmental impacts due to additional flares that would need to be installed and operated in standby mode to accept the PRD releases. Some commenters suggested that we should instead consider as MACT the rules on PRDs that apply to refineries in the South Coast Air Quality Management District (SCAQMD) and the Bay Area Air Quality Management District (BAAQMD).

The two California district rules are similar in that they both establish comprehensive regulatory programs to address the group or system of PRDs at refineries by requiring monitoring, root cause analysis, and corrective action, and by applying only to those PRD with the greatest emissions potential through a combination of applicability thresholds. Based on these comments, pursuant to CAA section 112(d)(2) and (3), we identified the SCAQMD rule as representing the requirements applicable to the best performers for PRDs. Consistent with the requirements of the SCAQMD rule and considering additional measures included in the BAAQMD rule, we established work practice standards for PRDs in the December 2015 rule (see 40 CFR 63.648(j)(3)) for new and existing sources. The work practice standard is a comprehensive set of requirements that apply to PRDs at refineries and focuses on reducing the size and frequency of atmospheric releases of HAP from PRDs, with an emphasis on prevention, monitoring, correction, and limitations on the frequency of release events. For further details on our analysis of the SCAQMD and BAAQMD rules and our use of those rules to establish a work practice standard for PRDs that is representative of the requirements that apply at best performing refineries, refer to the December 1, 2015, document at 80 FR 75216–18 and the memorandum in the docket titled ''Pressure Relief Device Control Option Impacts for Final Refinery Sector Rule,'' July 30, 2015 (Docket ID Item No. EPA–HQ–OAR–2010–0682–0750).

The work practice standard included in the December 2015 rule is comprised of four parts. The first component of the work practice standard requires that owners or operators monitor PRDs using a system that is capable of recording the time and duration of each pressure release and notifying operators that a pressure release has occurred. Second, the work practice standard requires refinery owners or operators to establish preventative measures for each affected PRD to minimize the likelihood of a direct release of HAP to the atmosphere as a result of pressure release events. Third, in the event of an atmospheric release, the work practice standard requires refinery owners or operators to conduct a root cause analysis to determine the cause of a PRD release event. If the root cause was due to operator error or negligence, then the release would be a violation of the work practice standard. A second release due to the same root cause for the same equipment in a 3-year period would be a violation of the work practice standard. A third release in a 3-year period would be a violation of the work practice standard, regardless of the root cause—although *force majeure* events, as defined in the December 2015 rule, would not count in determining whether there has been a second or third event. The fourth component of the work practice standard is a requirement for corrective action. For any event other than a *force majeure* event, the owner or operator would be required to conduct a corrective action analysis and implement corrective action. Refiners have 45 days to complete the root cause analysis and implement corrective action after the release event. The results of the root cause analysis and identification of the corrective action are required to be included in the periodic reports which are due on a semi-annual basis.

Consistent with the District rules, the work practice standard does not apply to the following PRDs that have very low potential to emit (PTE) based on their type of service, size, and pressure (40 CFR 63.648(j)(5)): PRDs that only release material that is liquid at standard temperature and pressure and that is hard-piped to a controlled drain system, PRDs that do not have a PTE of 72 pounds per day (lbs/day) or more of volatile organic compounds (VOC), PRDs with design release pressure of less than 2.5 pounds per square inch gauge (psig), PRDs on mobile equipment, PRDs in heavy liquid service, and PRDs that are designed solely to release due to liquid thermal expansion. These PRDs are subject to the operating and pressure release requirements in 40 CFR 63.648(j)(1) and (2), which apply to all PRDs, but not the pressure release management requirements in 40 CFR 63.648(j)(3).

We requested public comment on the work practice standard for PRDs as provided in 40 CFR 63.648(j)(3) and (5) through (7), including the number and type of release/event allowances; the type of PRDs subject to the work practice standard; and the definition of ''*force majeure* event'' in 40 CFR 63.641. We also requested public comment on the recordkeeping and reporting requirements associated with the work practice standard in 40 CFR 63.655(g)(10)(iii) and (i)(11).

The following is a summary of the comments received in response to our October 2016 proposed notice of reconsideration and our responses to these comments.

2. What comments were received on the work practice standards for PRDs?

Comment A.1: Some commenters were generally supportive of the final work practice standards for PRDs while other commenters disagreed with numerous aspects of the final work practice standards. The commenters who did not support the work practice standards claimed that they are unlawful because they do not provide for standards that are continuous and that apply at all times, pursuant to section 112 of the CAA as construed by the Court in the 2008 vacatur of the malfunction exemptions in the MACT General Provisions. *Sierra Club* v. *EPA,* 551 F.3d 1019, 1027–28 (D.C. Cir. 2008). (''Congress has required that there must be continuous section 112-compliant standards.''). The commenter also noted that Congress in H.R. Rep. No. 95–294, at 92 (1977), reprinted in 1977 U.S.C.C.A.N. 1077, 1170 also provided

that the term ''continuous'' emission standard requirement does not allow merely ''temporary, periodic, or limited systems of control.'' The commenters believe that because the work practice standards do not limit emissions to an amount certain during a PRD release event, there is effectively no emission limitation that applies during these times. Additionally, commenters do not believe that the work practice standards are justified under CAA section 112(h) because they believe the EPA erred in determining that the application of measurement methodology was not feasible in the case of PRDs and cited available wireless technology or monitoring of PRD releases.

Response A.1: We disagree that the standards do not apply at all times. The work practice standards for PRDs require a number of preventative measures that operators must undertake to prevent PRD release events, and the installation and operation of continuous monitoring device(s) to identify when a PRD release has occurred. These measures must be complied with at all times. The monitoring technology suggested by the commenters is in fact best suited to this application and is one of the acceptable methods that facility owners or operators may use to comply with the continuous monitoring requirement. Although that technology is adequate for identifying PRD releases, we disagree that it is adequate for accurately measuring emissions for purposes of determining compliance with a numeric emission standard. The technology cited is a wireless monitor that provides an indication that the PRD released, but it does not provide information on release quantity or composition. PRD release events are characterized by short, high pressure non-steady state conditions which make such releases difficult to quantitatively measure. As detailed in the preamble to the December 2015 rule (80 FR 75218), we specifically considered the issues related to constructing a conveyance and quantitatively measuring PRD releases and concluded that these measures were not practicable. Refinery operators can estimate emissions based on vessel operating conditions (temperature and pressure) and vessel contents when a release occurs, but these estimates do not constitute a measurement of emissions or emission rate within the meaning of CAA section 112(h). As such, we maintain our position that the application of a work practice standard is appropriate for PRDs.

Comment A.2: Commenters indicated that another reason they believe that the PRD work practice standard is illegal is that PRDs are not independent emission points and instead function in venting emissions from other emission points during a malfunction. For example, commenters pointed out that some equipment that vents to the atmosphere and, therefore, must meet the miscellaneous process vent standard, may also contain PRDs that vent HAP emissions to the atmosphere, bypassing the requirements established for miscellaneous process vents. The commenters believe that the EPA has simply created an exemption allowing equipment connected to PRDs to violate their emission standards without triggering a violation or potential enforcement and penalty liability. Finally, the commenters indicated that the EPA should retain the work practice standards for PRD on top of the existing emission standards for connected equipment to assure compliance and attempt to prevent fugitive emissions.

Response A.2: The commenters incorrectly suggest that the PRD work practice standard replaces the existing emission standards for ''connected equipment.'' The amendments to the NESHAP addressing PRDs do not affect requirements in the NESHAP that apply to equipment associated with the PRD. For example, compliance with the PRD requirements apply in addition to requirements for miscellaneous process vents for the same equipment, which addresses the commenter's suggestion.

We disagree that PRDs are simply bypasses for emissions that are subject to emission limits and controls and that they, thus, allow for uncontrolled emissions without violation or penalty. The PRDs are generally safety devices that are used to prevent equipment failures that could pose a danger to the facility and facility workers. The PRD releases are triggered by equipment or process malfunction. As such, they do not occur frequently or routinely and do not have the same emissions or release characteristics that routine emission sources have, even if the PRD and the vent are on the same equipment. This is because conditions during a PRD release (temperature, pressure, and vessel contents) differ from those that occur that result in routine emissions as miscellaneous process vents. In contrast, emissions from miscellaneous process vents are predictable and must be characterized for emission potential and applicable control requirements prior to operation in the facility's notification of compliance status report. In addition, PRDs must operate in a closed position and, as discussed earlier, must be continuously monitored to identify when releases have occurred. If an affected pressure relief device releases to the atmosphere, the owner and operator is required to perform root cause analysis and corrective action analysis (RCA/CAA) as well as implement corrective actions and comply with the specified reporting requirements. The work practice standard also includes criteria for releases from affected PRD which would result in a violation at 40 CFR 63.648(j)(3)(v).

Comment A.3: Commenters indicated that, even if the work practice standards for PRDs are justified, the work practice standards do not comply with the CAA requirements to assure both the average limitation achieved by the relevant best-performing sources and the maximum degree of emission reduction that is achievable. The commenters asserted that there is no discussion in the record or analysis that allowing 1–2 uncontrolled releases every 3 years reflects, at minimum, the average of the best performers' reductions and indicated that the EPA cannot simply replicate rules in place that specify PRD requirements. The commenters indicated that the EPA should have reviewed data, such as the 2007 SCAQMD Staff Report (Docket ID Item No. EPA–HQ–OAR–2010–0869–0024) which shows releases from Los Angeles area refineries ranged from 0.4–0.89 tons of VOC per year, to establish that no source has done better or cannot do better than those rules allow. The commenters also asserted that the EPA's promulgated work practice standards for PRDs are not as stringent as the SCAQMD and BAAQMD requirements that they are modelled after.

Response A.3: Section 112 of the CAA requires MACT for existing sources to be no less stringent than ''the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information). . .'' [(CAA section 112(d)(3)(A)]. ''Emission limitation'' is defined in the CAA as ''. . . a requirement established by the State or Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice, or operational standard promulgated under this chapter'' [CAA section 302(k)]. The EPA specifically considers existing rules from state and local authorities in identifying the ''emission limitations'' for a given source. We then identify the best performers to identify the MACT floor (the no less stringent than level) for that source. The EPA identified the

SCAQMD rule requirements as the MACT floor because it represented the requirements applicable to the best performing sources. The commenters appear to suggest that the EPA should identify an emissions level achieved in practice through implementation of the work practices in the two California rules and that the EPA is obligated to require sources to meet that emissions level. However, this is contrary to the predicate for the EPA establishing work practice standards. Work practice standards are established in place of a numeric limit where it is not feasible to establish such limits. Thus, in a case such as this, where the EPA has determined that it is appropriate to establish work practice standards (because it is infeasible to establish numeric limits), it was reasonable for the EPA to identify the work practice standards that impose the most stringent requirements and, thus, represent what applies to the best performers and then to require those work practice standards as MACT.

We recognize that the final standards for PRDs do not exactly mirror the SCAQMD provisions, but this is because, having established the MACT floor, we consider options for going beyond the MACT floor. As noted in the memorandum in the docket titled ''Pressure Relief Device Control Option Impacts for Final Refinery Sector Rule,'' July 30, 2015 (Docket ID Item No. EPA–HQ–OAR–2010–0682–0750), we looked at the BAAQMD standard as a more stringent work practice standard, and while we did not directly adopt the BAAQMD rule requirements, we did adopt several aspects of that rule. Specifically, we adopted the three prevention measures requirements in the BAAQMD with limited modifications. We also did not include a provision similar to that in the SCAQMD rule that excludes releases less than 500 lbs/day from the requirement to perform a root cause analysis; that provision in the SCAQMD rule does not include any other obligation to reduce the number of these events. Rather than allowing unlimited releases less than 500 lbs/day, we require a root cause analysis for releases of any size. We considered these to be reasonable and cost-effective enhancements to the SCAQMD rule. However, because we count small releases that the SCAQMD rule does not regulate at all, we considered it reasonable to provide a higher number of releases prior to considering the owner or operator to be in violation of the work practice standard. After considering the PRD release event limits in both the SCAQMD and BAAQMD rules, we determined it was reasonable and appropriate to establish PRD requirements consistent with those provisions in the SCAQMD and BAAQMD rules that provide flare work practice standards. Therefore, the final requirements provide that three events from the same PRD in a 3-calendar-year period is a violation of the work practice standard. We also note that a facility cannot simply choose to release pollutants from a PRD; any release that is caused willfully or caused by negligence or operator error is considered a violation. Additionally, a second PRD release event in a 3-calendar-year period for the same root cause is a violation.

With the implementation of the three prevention measures and the elimination of the 500 lbs/day applicability threshold, we specifically evaluated and adopted requirements beyond the MACT floor (*i.e.,* more stringent than the SCAQMD rule) and established requirements that we deemed to be cost effective and that we determined would achieve emission reductions equivalent to or better than the SCAQMD requirements.

The EPA further notes that the reported emissions the commenters claim the EPA should rely on are not actually measured emissions but rather engineering calculations of release quantities. As such, even if it were possible to establish a numeric emissions limit, there would be concerns about relying on the information cited by the commenters. Finally, we note that the commenter's summary of PRD release data from the 2007 SCAQMD Staff Report (Docket ID Item No. EPA–HQ–OAR–2010–0869–0024) suggests that the SCAQMD PRD requirements appear to be effective at reducing PRD emissions compared to states that do not have similar work practice standards.

In summary, the work practice standard we finalized provides a comprehensive program to manage entire populations of PRDs and includes prevention measures, continuous monitoring, root cause analysis, and corrective actions, and addresses the potential for violations for multiple releases over a 3-year period. We followed the requirements of section 112 of the CAA, including CAA section 112(h), in establishing what work practice constituted the MACT floor; we then identified certain additional provisions which were more stringent than the MACT floor requirements that we determined were cost effective, and we finalized the work practice standards, as enhanced by those additional provisions, as MACT.

Comment A.4: Commenters claimed that the EPA's malfunction exemptions are arbitrary and capricious under the CAA because the EPA did not finalize the prohibition on atmospheric releases from PRDs, as included in the June 2014 proposal. The commenters noted that the EPA finalized similar provisions prohibiting PRD releases in MACT standards for Group IV Polymers and Resins, Pesticide Active Ingredient Manufacturing, and Polyether Polyols Production. The commenters further stated that the Court recently upheld this type of prohibition [*Mexichem Specialty Resins, Inc.* v *EPA,* 787 F.3d 544, 560–61 (D.C. Cir. 2015)] and urged the EPA to finalize the standards for PRD as proposed. The commenters also suggested that the EPA's justification for not finalizing a prohibition on atmospheric PRDs was based on environmental disbenefits of having additional flare capacity on standby to control these unpredictable and infrequent events. According to the commenters, flares can be operated with spark ignition systems that would only operate when triggered by a flare event, and, therefore, the commenters suggested that the EPA overestimated the environmental disbenefits.

Response A.4: During the comment period on the June 2014 proposal, comments both from industry and environmental advocacy groups suggested we consider requiring the work practice standards established in regulations adopted by the BAAQMD and SCAQMD rules for PRD releases. In light of those comments and the statutory requirement that the EPA evaluate the best performing facilities in determining the appropriate MACT standard, the Agency considered whether the work practice standards established in the SCAQMD and BAAQMD rules represented what was achieved by the best performers. The BAAQMD and SCAQMD rules are the only rules we are aware of that have been established to address the infrequent and unpredictable nature of PRD releases for petroleum refineries. As noted in the previous response, the EPA established a MACT standard based on the SCAQMD rule and incorporated several of the key elements of the BAAQMD standard into the PRD requirements promulgated for new and existing sources in the December 2015 rule.

After determining a standard based on the best performing sources, we examined whether to establish a more stringent standard (requiring all PRD releases to be routed to a control

device). We rejected such an approach based on the economic impacts. We estimated that requiring control of all atmospheric PRDs would cost approximately 41 million dollars per year (annually) compared to the estimated economic impact of the work practice standards of 3.3 million dollars per year. (Cost is not a consideration in setting the MACT floor, but it is relevant to our determination whether to establish additional requirements more stringent than that floor.) We also estimated that secondary emissions for additional flaring in the event all PRDs were routed to a control device would increase greenhouse gas emissions by 104,000 megagrams of carbon dioxide equivalents per year and increase nitrogen oxide emissions by 85 tons per year (see memorandum in the docket titled ''Pressure Relief Device Control Option Impacts for Final Refinery Sector Rule,'' July 30, 2015, Docket ID Item No. EPA–HQ–OAR–2010–0682–0750).

Regarding the comment that flares could be equipped with spark ignition systems, we note that such systems are not compliant with the long-standing requirements in 40 CFR 60.18 and 63.11 or the new requirements in 40 CFR 63.670 that flares be operated with a pilot present at all times. The EPA has previously rejected the use of spark ignition systems because these systems may not reliably ignite on demand which would result in an atmospheric release of the pollutants routed to the flare.

Comment A.5: Commenters stated that the EPA's malfunction exemption for *force majeure* events in the PRD work practice standard is arbitrary and capricious under CAA section 112 because it creates periods of time when no emissions standard applies. Further, commenters added that *force majeure* is a term defined by contracts law to provide a defense to avoid meeting a party's responsibility under a contract and applies only where a party has specifically negotiated and agreed to its use. As such, commenters claimed that the concept of *force majeure* does not exist or belong in the context of compliance with a non-contractual federal law, such as the CAA. Refineries should not be able to decide when to comply with the CAA requirements.

Commenters stated that it is unlawful and arbitrary to promulgate a definition of *force majeure* that does not codify criteria for determining whether a *force majeure* event or a violation has occurred (*i.e.,* the determination is left to the Administrator). The commenters added that the EPA does not have the authority to decide when such an event has occurred, rather the Court must decide whether a violation warranting a penalty has occurred with the burden of proof resting on the refinery.

Response A.5: The PRD work practice standard requires redundant prevention measures, which are designed to limit the duration and quantity of releases from all atmospheric PRDs regardless of the cause. These requirements apply at all times; thus, the final work practice standards do have requirements that apply to PRDs at all times and they are not contrary to the CAA requirements in CAA section 112. We also note that facilities are also required to initiate a root cause analysis to assess the cause of the release, including releases determined to be caused by a *force majeure* event.

We disagree that because *force majeure* is a term typically used in contract law that it cannot or should not be used in the context of regulations establishing standards under the CAA. We have determined that a *force majeure* provision is part of the MACT floor for regulating PRDs at refineries and, as such, should be included as part of the MACT standard. The definition of *force majeure* event in the December 2015 final rule is based specifically on a clause included in the SCAQMD rule, which served as the basis for the MACT standard. Rather than repeating this clause at each instance, we determined that is was preferential to use and define the term *force majeure* event. We find that the December 2015 final rule's definition of *force majeure* event has adequate specificity to allow determination of whether a PRD release event was caused by a *force majeure* event. The definition specifies events that are beyond the control of the operator, including natural disasters, acts of war or terrorism, external power curtailments (excluding curtailments due to interruptible service agreements), and fire or explosions originating at near or adjoining facilities outside of the refinery owner or operator's control that impact the refinery's ability to operate. The commenters suggest that criteria are needed for determining whether a *force majeure* event has occurred. We disagree; the examples provided in the definition provide sufficient specificity to help guide a decisionmaker in deciding whether to pursue an enforcement action because they believe a violation has occurred that was not caused by a *force majeure* event and for a court or other arbiter to rule on any claim. Regarding the comment that the Court, not the Administrator, should determine when a *force majeure* event has occurred, we note that the regulations do not specify that the Administrator would make a binding determination of whether a *force majeure* event has occurred, and the issue could be argued and resolved by the Court in the context of a citizen suit.

Comment A.6: One commenter supported the work practices for PRD and emergency flaring with the exception of the additional backstop measures in 40 CFR 63.648(j)(3)(iv) and (v) and 40 CFR 63.670(o)(7)(iv), respectively. The commenter explained that these backstops arbitrarily limit the number of release events for PRD and emergency flaring events and are not needed to demonstrate continuous compliance with the work practice standards.

Response A.6: For PRDs, these are the applicable standards that were determined to be MACT and are modeled after the backstop within the SCAQMD rule. With respect to the flare work practice requirements, our goal is to ensure continuous compliance with the emission limits applicable to the gas streams that are discharged to the flare. We determined that optimal HAP destruction occurs under specific conditions, which include limited periods of visible emissions. Therefore, we established these requirements in parallel with the PRD requirements to help limit the size and duration of these emergency flaring events and optimize flare performance. We consider these backstop measures for PRD and emergency flaring to be critical to ensure that the prevention measures implemented are effective, that the root-cause analyses conducted are thorough, and that the corrective action measures implemented are effective.

Comment A.7: Commenters stated the final rule provided criteria for releases that will be considered a violation of the pressure release management work practices in 40 CFR 63.648(j)(v)(B) and (C) based on a ''3 calendar year period,'' but the Agency did not explain how this time period runs nor how it will be assessed or reported to the EPA and to the public. The commenter noted that the EPA stated in the preamble (80 FR 75212) relative to the flare work practice provisions, the violation criteria is based on a ''rolling 3-year period,'' but a rolling 3-year period is not in the regulatory text for either the flare or PRD work practice.

Response A.7: The regulatory text at 40 CFR 63.648(j)(3)(B) and (C) clearly states that the time period is based on a 3-calendar-year period. We consider 2020 to be one calendar year. A 3-calendar-year period in 2020 would include events that occurred in 2018, 2019, and 2020. It is a rolling average to the extent that, in 2021, one would consider events that occurred in 2019,

2020, and 2021. As indicated in 40 CFR 63.655(g)(10)(iii), each pressure release to the atmosphere, including the duration of the release, the estimated quantity of each organic HAP released, and the results of the RCA/CAA completed during the reporting period must be included as part of the reporting obligation.

Comment A.8: Commenters stated that the EPA should add to the reporting requirements for the PRD and flare work practice standards by requiring an initial report to the EPA, state, and local regulators within 1 hour of the start of a release event or within 1 hour of the operator reasonably knowing of its occurrence. They maintained that the initial report should include the process unit the flare or PRD is associated with and initial identification of the cause of the event. The initial report should be followed by a report containing the contents of 40 CFR 63.655(g)(10) and (11) within 30 days after the event and additionally include whether the PRD or flare has had an emissions release or smoking event in the past 3 years, including references or copies of previously submitted reports. Commenters added that this would be consistent with the Agency's attempt to match the SCAQMD requirements for PRDs. Finally, commenters suggested that the EPA should require all malfunction reports be made publicly available online at the same time they are submitted to the EPA.

Response A.8: The SCAQMD rule has notification and reporting requirements for atmospheric PRD releases in excess of the reportable quantity limits in 40 CFR part 117, part 302, and part 355, including releases in excess of 100 pounds of VOC (Rule 1173(i)(3)). The notification must occur within 1 hour of the release or within 1 hour of the time a person should have reasonably known of its occurrence. A written report must be submitted within 30 days of the atmospheric release. These requirements closely mirror those under other EPA programs, such as the Superfund Amendments and Reauthorization Act 313 (SARA 313). We note that refinery owners or operators are already required to report emissions events through various state and federal requirements, including immediate notifications of releases exceeding reportable quantities under SARA 313, and while we acknowledge that these reports would be submitted to a different branch within the EPA, we believe any additional reporting requirements would be redundant, unnecessary, and inefficient. Therefore, we are not revising the recordkeeping and reporting requirements in the December 2015 rule as requested by the commenter.

Comment A.9: Commenters stated that the exemptions for specific types of pressure relief devices are unlawful and arbitrary. Commenters contended that the only justification the EPA has made for providing these PRD exemptions is that the emissions are expected to be small. Commenters asserted that there is no *de minimis* threshold for regulating emission points within a source category and, thus, the EPA's attempt to exempt certain types of PRDs is illegal.

Response A.9: We modeled the applicability of the PRD provisions after the SCAQMD rule, based on a MACT floor analysis and considering the appropriate requirements for these types of PRDs. It is likely that the SCAQMD rule did not apply the PRD-specific requirements to certain PRDs due to their low emissions release potential. As part of our ''beyond the floor'' analysis, we determined that it was not cost effective to include control of these PRDs as part of the work practice standard for PRDs. However, these PRDs are regulated under other provisions of the MACT. We note that, if the PRD is in gas or vapor service, refinery owners and operators are still required to monitor the PRD after the release to verify the device is operating with an instrument reading of less than 500 parts per million. Liquid PRDs are still subject to repair if a leak is found during visual inspection.

3. What is the EPA's final decision on the work practice standards for PRDs?

The PRD work practice standards were developed in accordance with the CAA, establishing a MACT floor based on consideration of the SCAQMD and BAAQMD work practice standards. The sources complying with these requirements are the best performing sources. It was necessary to establish these requirements as work practice standards under CAA section 112(h) because quantitative measurement of flow rates during PRD release events is not practicable due to technological and economic limitations with measuring highly transient flows. The inclusion of *force majeure* event allowances and restrictions of the applicability of the pressure release management requirements to specified types of PRDs are consistent with the MACT floor and are necessary components of the work practice standards. We consider a complete prohibition of atmospheric PRD to be ''beyond the MACT floor'' and we are declining to set a ''beyond the floor'' requirement on the basis of cost and environmental disbenefits. We have not been presented with any comments and/or information received in response to the October 2016 proposed notice of reconsideration relative to the PRD work practice standards which will result in any changes to the December 2015 rule.

B. Issue 2: Work Practice Standard for Emergency Flaring

1. What is the history of work practice standards for emergency flaring?

In the June 2014 proposal, the EPA proposed to amend the operating and monitoring requirements for petroleum refinery flares. As discussed in the proposal at 79 FR 36904, we determined that the requirements for flares in the General Provisions at 40 CFR 63.18 were not adequate to ensure compliance with the Refinery MACT standards. In general, at the time the MACT standards were promulgated, flares used as air pollution control devices were expected to achieve a 98-percent HAP destruction efficiency. However, because flows of waste gases to the flares had diminished based on reductions achieved by the increased use of flare gas recovery systems, there have been times when the waste gas to the flare contained insufficient heat content to adequately combust and, thus, a 98-percent HAP destruction efficiency was not being achieved. In addition, the practice of applying assist media to the flare (particularly steam to prevent smoking of the flare tip) had led to a decrease in the combustion efficiency of flares.

To ensure that a 98-percent HAP destruction efficiency was being met, as contemplated at the time the MACT standard was promulgated, we proposed revisions to Refinery MACT 1 that required flares to operate with a continuously-lit pilot flame at all times when gases are sent to the flare, with no visible emissions except for periods not to exceed 5 minutes during any 2 consecutive hours, and to meet flare tip velocity limits and combustion zone operating limits at all times when gases are flared.

During the comment period on the June 2014 proposal, we received comments that the EPA's concern over insufficient heat content of the waste gas or over-assisting flares is less problematic in attaining a high level of destruction efficiency at the flare in emergency situations, where the flow in the flare exceeds the smokeless capacity of the flare. The commenters suggested that better combustion was assured closer to the incipient smoke point of the flare and that flow velocity limits and limits on visible emissions should not apply during emergency flaring events.

In the December 2015 rule, we determined that it was appropriate to set different standards for when a flare is operating below its smokeless capacity and when it is operating above its smokeless capacity. We finalized the proposed requirements (with minor revisions) to apply when a flare is operating below its smokeless capacity.

In the December 2015 rule, we established a work practice standard that applies to each affected flare with a potential to exceed its smokeless capacity. The work practice standard requires owners or operators to develop flare management plans to identify the flare system smokeless capacity and flare components, waste gas streams that are flared, monitoring systems and their locations, procedures that will be followed to limit discharges to the flare that cause the flare to exceed its smokeless capacity, and prevention measures implemented for PRDs that discharge to the flare header. The work practice standard requires a continuously-lit pilot flame, combustion-zone operating limits, and the monitoring, recordkeeping, and reporting requirements apply at all times—whether the flare is operating below, at, or above its smokeless capacity, including during a *force majeure* event. These requirements are the most critical in ensuring that a 98-percent destruction efficiency is being met during emergency release events.

In addition, where a flare exceeds its smokeless capacity, a work practice standard requires refinery owners or operators to conduct a root cause analysis and take corrective action for any flaring event that exceeds the flare's smokeless capacity and that also exceeds the flare tip velocity and/or visible emissions limit. Refiners have 45 days to complete the root cause analysis and implement corrective action after an event. The results of the root cause analysis and corrective action are due with the periodic reports on a semi-annual basis. If the root cause analysis indicates that the exceedance of the flare tip velocity and/or the visible emissions limit is caused by operator error or poor maintenance, the exceedance is a violation of the work practice standard. A second event causing an exceedance of either the flare tip velocity or the visible emissions limit within a rolling 3-year period from the same root cause on the same equipment is a violation of the standard. A third exceedance of the velocity or visible emissions limit occurring from the same flare in a rolling 3-year period is a violation of the work practice standard, regardless of the root cause. However, *force majeure* events are excluded from the event count.

We requested public comment on the above smokeless capacity work practice standard in 40 CFR 63.670(o), including the requirements to maintain records of prevention measures in 40 CFR 63.670(o)(1)(ii)(B) and (iv); the requirement to establish a single smokeless design capacity in 40 CFR 63.670(o)(1)(iii)(B); the number and type of releases/events that constitute a violation; the phrase ''. . . and the flare vent gas flow rate is less than the smokeless design capacity of the flare'' in 40 CFR 63.670(c) and (d); the proposed correction to paragraph 40 CFR 63.670(o)(1)(ii)(B); and other provisions in 40 CFR 63.670(o)(3) through (7). We also requested public comment on the recordkeeping and reporting requirements associated with these work practice standards in 40 CFR 63.655(g)(11)(iv) and (i)(9)(x) through (xii).

In reviewing the regulatory text for this proposed action, we also determined that 40 CFR 63.670(o)(1)(ii)(B) contains an incorrect reference to pressure relief devices for which preventative measures must be implemented. The correct reference is paragraph 40 CFR 63.648(j)(3)(ii), not 40 CFR 63.648(j)(5). We proposed to correct this referencing error.

2. What comments were received on the work practice standards for emergency flaring?

Comment B.1: Some commenters were generally supportive of the final work practice standards for emergency flares, while other commenters disagreed with numerous aspects of the final work practice standards. The commenters who disagree indicated that establishing these work practice standards for emergency flaring is unlawful because they do not provide for standards that are continuous and that apply at all times, as directed by section 112 of the CAA and as upheld by the Court in the 2008 vacatur of the malfunction exemptions in the MACT General Provisions. *Sierra Club* v. *EPA,* 551 F.3d 1019, 1027–28 (D.C. Cir. 2008) (''Congress has required that there must be continuous section 112-compliant standards.''); see also H.R. Rep. No. 95–294, at 92 (1977), reprinted in 1977 U.S.C.C.A.N. 1077, 1170 (''continuous'' emission standard requirement does not allow merely ''temporary, periodic, or limited systems of control''). The commenters state that because the work practice standards do not limit emissions to any certain amount during an emergency flaring event, there is effectively no emission limitation that applies during these times. Additionally, the commenters do not believe that the work practice standards are justified under CAA section 112(h) for emergency flaring because measurement technology is available to measure what is sent to the flare.

Response B.1: We disagree that the standards do not apply at all times. The work practice combustion efficiency standards (specifically limits on the net heating value in combustion zone) apply at all times, including during periods of emergency flaring. With respect to setting work practice standards under CAA section 112(h), we note that the combustion efficiency standards were established as work practice standards. In the case of flaring, emissions are not conveyed through a stack and are difficult to measure. The EPA's practice has been to establish work practice standards for regulating flares (see, *e.g.,* General Provisions in 40 CFR parts 60 and 63, the combustion efficiency requirements in this rule, and flaring work practice standards in the Petroleum Refinery NSPS, subpart Ja). These work practice standards do take advantage of upstream measurement systems, but we do not agree that upstream measurement systems are the same as measuring emissions from the flare following combustion nor are they, standing alone, a sufficient emissions limitation or standard.

Comment B.2: Commenters stated that, even if the work practice standards for flares operating above the smokeless capacity are justified, the work practice standards do not comply with the CAA requirements that the emissions limitation is as stringent as the average emission limitation achieved by the best-performing sources, and the maximum degree of emission reduction that is achievable. Commenters explained that the EPA provided an allowance for up to two smoking flare events per flare in a 3-year period based on API-supplied information reporting that the average refinery flare experiences an event every 4.4 years and an assumption that the best performing flares have one smoking event every 6 years. The commenters contended that these figures are based on unverified data submitted in an API/AFPM survey and its use is arbitrary and capricious. The commenters maintained that instead of using the API/AFPM survey data, the EPA should have reviewed data including emissions data from their own studies as well as emissions data available from Texas Commission on Environmental Quality (TCEQ), SCAQMD, or BAAQMD when developing these standards. The commenters suggested that the EPA

establish standards based on the duration and amount of gas routed to a flare during a malfunction event that causes the flare to operate above its smokeless capacity, in addition to the cap on the number of exceptions.

Response B.2: First, one must recognize that the flare is not a specific emission source within Refinery MACT 1 standards and, thus, we did not seek to establish a MACT floor for flares at the time that we promulgated Refinery MACT 1. Rather, we identified flares as an acceptable means for meeting otherwise applicable requirements and we established flare operational standards that we believed would achieve a 98-percent destruction efficiency on a continual basis. Recognizing that flares were not achieving the 98-percent reduction efficiency in practice, we proposed additional requirements in the June 2014 proposal to ensure that flares operate as intended at the time we promulgated Refinery MACT 1.

Regarding the operational standards for flares operating above the smokeless capacity, we note that these flare emissions are emissions due to a sudden increase in waste gas entering the flare, typically resulting from a malfunction or an emergency shutdown at one or more pieces of equipment that vents emissions to the flare. The commenter's suggestion that the EPA should establish standards on the duration and amount of gas discharged to a flare during malfunction events misses the mark. Flares are associated with a wide variety of process equipment and the emissions routed to a flare during a malfunction can vary widely based on the cause of the malfunction and the type of associated equipment. Thus, it is not feasible to establish a one-size-fits-all standard on the amount of gas allowed to be routed to flares during a malfunction. Moreover, we note that routing emissions to the flare will result in less pollution than the other alternative, which would be to emit directly to the atmosphere. We note that we do not set similar limits for thermal oxidizers, baghouses, or other control devices that we desire to remain operational during malfunction events to limit pollutant emissions to the extent practicable. However, we did establish work practice standards that we believe will be effective in reducing the size and duration of flaring events that exceed the smokeless capacity of the flare to improve overall flare performance. We are establishing these work practice standards for flares in order to ensure 98-percent destruction of HAP discharged to the flare (as contemplated at the time Refinery MACT 1 was promulgated) during both normal operating conditions when the flare is used solely as a control device and malfunction releases where the flare acts both as a safety device and a control device.

Comment B.3: Commenters stated that the EPA's malfunction exemption for *force majeure* events for emergency flaring is arbitrary and capricious under CAA section 112 because it creates periods of time when no emissions standard applies.

Response B.3: As noted in Response A.5 to similar comments regarding PRD release events, it is very difficult to guard perfectly against acts of God and acts of terrorism. The EPA does not believe it can develop measures that would effectively limit emissions during all such acts. Regardless, we disagree that *force majeure* events are exempt from regulation. Several of the work practice standards apply during these events. Specifically, flares are required to comply with the requirements for a continuously lit pilot flame and combustion efficiency standards (*i.e.,* limits on the net heating value in combustion zone) at all times, including during periods of emergency flaring caused by a *force majeure* event.

Comment B.4: Commenters requested that the EPA delete from the rule the requirements at 40 CFR 63.670(o)(1)(ii)(B) and (o)(1)(iv), claiming the requirements are highly burdensome. These requirements require an owner or operator to include as part of the flare management plan (FMP) records of prevention measures and design and operating details for PRDs that are routed to flares. Alternatively, commenters recommended that the rule only require this information be included in the FMP for those PRDs (*i.e.,* a single PRD or a single set of PRDs which protect a single piece of equipment) whose potential for release is great enough to exceed the smokeless capacity of the flare.

Response B.4: Because PRDs are expected to be the primary source of a release that might cause a flaring event that could exceed the smokeless capacity of the flare, we determined that the identification of the PRDs that are vented to the flare is a critical component of the FMP. We also recognize that consideration of prevention measures for PRDs that can discharge to a flare will help to reduce the number of flaring events that exceed the smokeless capacity of the flare. Consequently, we include consideration of prevention measures for PRDs as one of three critical items, listed in 40 CFR 63.670(o)(1)(ii)(A) through (C), that each owner or operator of a flare must consider within the flare minimization assessment requirement of the FMP. While submission of the FMP is primarily a one-time event, we expect that these prevention measures for PRDs discharged to the flare will be an active and growing list as owners and operators implement corrective actions after a release event exceeding the smokeless capacity of the flare and exceeding the visible emissions limit and/or the flare tip velocity limit. As noted in 40 CFR 63.670(o)(2)(ii), the plan must be updated periodically to account for changes in the operation of the flare, but we do not consider new prevention measures implemented for PRDs that discharge to the flare to constitute a change in the operation of the flare. Thus, this updated listing can be in an electronic database and it is not required to be updated in the FMP unless the FMP is otherwise required to be updated or re-submitted according to the provisions in 40 CFR 63.670(o)(2)(ii). We do not consider this effort to be a significant burden beyond what is already required for hazards analysis and the commenter did not provide any data to quantify or substantiate the claims that this effort is ''highly burdensome.''

We considered the suggestion to limit this requirement to PRDs with high potential release rates. However, many flares may receive discharges from dozens of PRDs across multiple process units. In an emergency event, it is possible that several of these PRDs associated with different equipment can relieve at the same time. While any one PRD may not exceed the flare's smokeless capacity, the combination of PRD releases may. Thus, we determined that it is appropriate to require all PRDs discharged to the flare to be identified and applicable prevention measures should be evaluated regardless of the release potential of an individual PRD.

3. What is the EPA's final decision on the work practice standards for emergency flaring?

The emergency flaring work practice standards were developed to ensure that flares achieve the 98-percent reduction assumed at the time MACT 1 was promulgated. In determining the means to ensure that flares achieve the 98-percent reduction, the EPA considered available data for best performing flare sources. The inclusion of the *force majeure* provisions in the work practice standard do not alter the work practice requirements for a continuously lit pilot flame and combustion efficiency standards, which apply at all times. The flare requirements in Refinery MACT 1 were established as work practice

standards and the operational standards established in the December 2015 final rule and affirmed in this action are also work practice standards under CAA section 112(h). Work practice standards are appropriate for flares because pollutants emitted from the flare cannot be emitted through a conveyance designed and constructed to emit or capture such pollutants. We have not been presented with any comments and/or information received in response to the proposed notice of reconsideration relative to the emergency flaring work practice standards which will result in any changes to these requirements as promulgated in the December 2015 rule.

C. Issue 3: Assessment of Risk From the Petroleum Refinery Source Categories After Implementation of the PRD and Emergency Flaring Work Practice Standards

1. What is the history of the assessment of risk from the Petroleum Refinery source categories after implementation of the PRD and emergency flaring work practice standards?

The results of our residual risk review for the Petroleum Refinery source categories were published in the June 2014 proposal (79 FR 36934 through 36942), and included assessment of chronic and acute inhalation risk, as well as multipathway and environmental risk, to inform our decisions regarding acceptability and ample margin of safety. The results indicated that the cancer risk to the individual most exposed (maximum individual risk or ''MIR'') based on allowable HAP emissions is no greater than approximately 100-in-1 million, which is the presumptive limit of risk acceptability, and that the MIR based on actual HAP emissions is no greater than 60-in-1 million, but may be closer to 40-in-1 million. In addition, the maximum chronic noncancer target organ-specific hazard index (TOSHI) due to inhalation exposures was less than 1. The evaluation of acute noncancer risks, which was conservative, showed the potential for adverse health effects from acute exposures is unlikely. Based on the results of a refined site-specific multipathway analysis, we also concluded that the cancer risk to the individual most exposed through ingestion is considerably less than 100-in-1 million.

In the December 2015 rule, we established work practice standards for PRD releases and emergency flaring events, which under the June 2014 proposal would not have been allowed. Because we did not consider such non-routine emissions under our risk assessment for the June 2014 proposal, we performed a screening level analysis of risk associated with these emissions for the December 2015 rule as discussed in detail in ''Final Residual Risk Assessment for the Petroleum Refining Source Sector'' in Docket ID Item No. EPA–HQ–OAR–2010–0682–0800. Our analysis showed that HAP emissions could increase the MIR based on actual emissions by as much as 2-in-1 million, which is not substantially different than the level of risk estimated at proposal. We also estimated that chronic noncancer TOSHIs attributable to the additional exposures from non-routine flaring and PRD HAP emissions are well below 1. When the additional chronic noncancer TOSHI from the screening analysis are added to the TOSHI estimated in the June 2014 proposal, all chronic noncancer TOSHIs remain below 1. Further, our screening analysis also projected that maximum acute exposure to non-routine PRD and flare emissions would result in a maximum hazard quotient (HQ) of 14 from benzene emissions based on a reference exposure level (REL). An exceedance of an REL value does not necessarily indicate that an adverse health effect will occur. Because of the infrequent occurrence of such events and the probability that someone would be at the exact most highly impacted exposure locations at the time of the elevated ambient levels, the EPA risk assessors believe there is a very low probability of any adverse exposure. Based on the risk analysis performed for the June 2014 proposal and the screening assessment to consider how conclusions from that analysis would be affected by the additional non-routine flare and PRD emissions allowed under the December 2015 rule, we determined that the risk posed after implementation of the revisions to the MACT standards is acceptable and that the standards as promulgated provide an ample margin of safety to protect public health.

We requested public comment on the screening analysis and the conclusions reached based on that analysis in conjunction with the risk analysis performed for the June 2014 proposal.

2. What comments were received on the assessment of risk from the Petroleum Refinery source categories after implementation of the PRD and emergency flaring work practice standards?

Comment C.1: Commenters explained that the EPA performed a screening level risk assessment to account for the additional risk from the PRD and emergency flare work practice standards based on ''approximately 430 records of PRD and flare HAP pollutant release events'' from 25 facilities, as reported in response to the detailed Petroleum Refinery information collection request (ICR), and that this assessment resulted in an additional 2-in-1 million lifetime cancer risk and an acute risk that is 14 times higher than what the Agency considers safe. The commenters contended that these risks were based on biased-low industry-estimated emissions data when they should have been based on a true maximum additional cancer or acute risk from a serious fire, explosion, or *force majeure* event, or even from one of the largest historical leaks or emergency flaring events. Commenters referenced numerous malfunction events which they asserted demonstrate the long history of these types of releases from refineries that could have been prevented by advanced planning, inspections, upgrades, and maintenance and claimed these events could have been used for the purpose of estimating additional risks from PRD releases and smoking flare events. In addition to not basing the risks on a worst-case scenario, the commenters said the EPA did not explain how the risk model predicted worst case 1-hour and annual average concentrations for PRDs and flares or whether the concentrations presented in the final risk assessment were total HAP or benzene. In any case, the commenters asserted that these concentrations are higher than what the California EPA has deemed health protective for acute and chronic exposure, and while they are lower than the EPA's 2003 Integrated Risk Information System values, the EPA should consider that these exposures occur in combination with other emissions from refineries.

Response C.1: The December 2015 rule established work practice standards that require advanced planning, inspections, upgrades, and maintenance of equipment through the implementation of prevention measures, root cause analysis, and corrective action. Under CAA section 112(f)(2), the EPA is required to estimate the risk remaining after the implementation of the MACT, which for this emissions source is the promulgated work practice standards. This approach is consistent with the way that EPA has performed its risk analysis for all previously promulgated risk reviews under CAA section 112(f)(2). In the screening analysis, we used release information collected under the authority of CAA section 114 which represents annual releases occurring prior to the implementation of these work practice

standards and the data and assumptions used as inputs to the screening analysis are a reasonable representation of the worst-case releases allowed under the promulgated standard and that may be expected subsequent to the implementation of the work practice standards.

In response to the commenters' statement that the EPA did not explain how the risk model predicted worst case 1-hour and annual average concentrations for PRDs and flares or whether the concentrations presented in the final risk assessment were total HAP or benzene, as noted in the risk report (appendix 13 of Docket ID Item No. EPA–HQ–OAR–2010–0682–0800), the EPA estimated concentrations using a conservative (health protective) screening dispersion modeling approach. Further, the risks were estimated based on all reported emissions (*i.e.,* not only benzene). Acute risks (HQs) are estimated on a pollutant-by-pollutant basis.

With regard to the comment that the EPA should consider the California Office of Environmental Health Hazard Assessment health benchmarks, in May 2018, based on examination of the California EPA's acute (1-hour) REL for benzene, and taking into account aspects of the methodology used in the derivation of the value and how this assessment stands in comparison to the Agency for Toxic Substances and Disease Registry's toxicological assessment, EPA toxicologists decided it is not appropriate to use the benzene REL value to support the EPA's RTR rules. In lieu of using the REL in RTR risk assessments, the EPA is now evaluating acute benzene risks by comparing potential exposure levels to the emergency response planning guidelines (ERPG)–1 values. In this case, the acute HQ value from non-routine PRD and flare emissions is 0.07 when comparing ambient levels to the ERPG–1.

Comment C.2: Commenters asserted that the EPA's risk assessment and determinations are unlawful and are arbitrary and capricious because the EPA has not followed its own policy and guidelines in summing cancer risk and treating a lifetime cancer risk above 100-in-1 million as showing the need for section CAA section 112(f) standards. The commenters stated that the EPA found an inhalation-based cancer risk of 100-in-1 million from routine emissions, an additional cancer risk of 2-in-1 million from non-routine PRD and flare emissions, and an additional cancer risk of 4-in-1 million from non-inhalation or multipathway emissions. The sum of these risks is 106-in-1 million, and, therefore, above the presumptive acceptability threshold of 100-in-1 million, yet the EPA has continued to maintain that risks are acceptable. The commenters also contended that in addition to never adding these risks, the EPA has not provided a reasoned justification in the record for not doing so. The commenters added that the EPA recognized risks were unacceptable for a similar set of risks (*e.g.,* lead smelting and ferroalloys) as those in the Petroleum Refinery RTR, and, thus, the risk for the Petroleum Refinery RTR should also be found unacceptable.

Further, the commenters noted that the EPA's refined multipathway risk assessment for one refinery, for which the EPA indicates that the sum of the multipathway and inhalation risks for that facility is less than 100-in-1 million, conflicts with the fact that the inhalation risk alone is at least 100-in-1 million; it is unclear how combined risks would not exceed 100-in-1 million. Finally, the commenters stated that the EPA has not supported the conclusion based on data in the record that after performing a refined risk assessment on one refinery that cancer risk for all facilities can be discounted.

Response C.2: As an initial matter, it is important to note that a risk level of 100-in-1 million is a presumptive limit of acceptability, not a threshold for acceptability or regulatory action. As stated in the Benzene NESHAP (54 FR 38044, 38061, September 14, 1989), in determining the need for residual risk standards, we strive to limit to no higher than approximately 100-in-1 million the estimated cancer risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years and, in the ample margin of safety decision, to protect the greatest number of persons possible to an individual lifetime risk level of no higher than approximately 1-in-1 million. In determining whether risk is acceptable under CAA section 112(f), these levels are not rigid lines, and we weigh the cancer risk values with a series of other health measures and factors, including the specific uncertainties of the emissions, health effects, and risk information for the relevant source category, in both the decision regarding risk acceptability and in the ample margin of safety determination. The source category-specific decision of what constitutes an acceptable level of risk and whether it is necessary to promulgate more stringent standards to provide an ample margin of safety is a holistic one; that is, the EPA considers all potential health impacts—chronic and acute, cancer and noncancer, and multipathway—along with their uncertainties.

With regard to the analysis performed for the refinery standards at issue here, the estimated risk of 100-in-1 million is based on a risk analysis using the MACT-allowable HAP emissions from a model plant, while the estimated risk based on actual HAP emissions from refineries is no greater than approximately 60-in-1 million and may be closer to 40-in-1 million based on updated data received during the comment period. The model plant screening approach used to assess MACT-allowable HAP emissions used several health protective assumptions including co-locating all sources at a refinery at a single location. The screening analysis used to estimate risk from non-routine PRD and flare emissions is also based on several health protective assumptions. Because of the conservative nature of these screening analyses, the EPA does not typically add their results (*i.e.,* risk estimates from the model plant non-routine PRD and flare emissions to risk estimates from model plant allowable emissions). Further, we do not add the multipathway (non-inhalation) risks to inhalation risks because it is highly unlikely that the person exposed to the highest inhalation risk is the same person exposed to the highest refined multipathway (ingestion) risks. Overall risk results are presented to one significant digit, thus, even if we were to add the non-inhalation risk of 4-in-1 million to the 100-in-1 million risk from inhalation, we would still assess the total risk based on allowable emissions as 100-in-1 million.

Regarding the refined multipathway analysis performed on a single facility, as stated in the risk report, the EPA performed the refined analysis to gain a better understanding of the uncertainty associated with the multipathway Tier I and II screening analyses. The site, Marathon Ashland Petroleum facility (NEI6087) near Garyville in St. John the Baptist Parish, Louisiana, was among those that exceeded the Tier I screen for any HAP known to be persistent and bio-accumulative in the environment (PB–HAP), and it was among the refineries that had the greatest exceedance of a Tier II threshold for any PB–HAP. It also was selected based on the feasibility, with respect to the modeling framework, of obtaining model parameters for the region surrounding the refinery. The exposure estimates (and the risks calculated for those exposures) are anticipated to be among the highest that might be encountered for this source category because of the proximity of waterbodies

as well as agricultural lands. We note that many of the refineries did not exceed the Tier I screen, and for those that did, the levels of the exceedances were generally less than the level of exceedance exhibited by the facility selected for the refined assessment. Because the other facilities had a similar or lower exceedance of the screening level, the results of the refined assessment for this facility led us to conclude that if refined analyses were performed for other sites, the risk estimates would similarly be reduced from their Tier II estimates.

Comment C.3: A commenter stated that the EPA acknowledged that people of color and those with low incomes are disproportionately exposed to risk from refinery emissions. The commenter asserted that the EPA has not provided a rational explanation why the unfair distribution of this risk does not lead to an unacceptable risk finding or at least require additional protections to assure an ample margin of safety to protect public health for all exposed persons.

Response C.3: Following the analysis that CAA section 112(f)(2) requires, the EPA determined that the risk posed by emissions from the Petroleum Refinery source category were acceptable. After considering whether additional standards were required to provide an ample margin of safety to protect public health, including the health of people of color and those with low income, the EPA established additional control requirements for storage vessels. The December 2015 rule reduces risk for millions of people living near petroleum refineries and provides an ample margin of safety to protect public health. The NESHAP accordingly provides an ample margin of safety for all proximate populations, including people of color and those with low incomes.

Comment C.4: A commenter stated that the EPA's risk assessment and determination are unlawful and are arbitrary and capricious because they are based on internally contradictory findings that, although acute risk is high (citing an HQ of 14 due to benzene from non-routine PRD and flare emissions), exposure to these non-routine emissions will rarely occur. The commenter asserted that the EPA's own record shows that non-routine emissions occur frequently: Every 4.4 to 6 years at all refineries, 16.7 percent probability of having an event in any given year, and that over a long period of time, such as 20 years, half of the best performers would have two events in a 3-year period. The commenter added that the December 2015 rule will allow these non-routine emissions events to happen even more frequently. The commenter further asserted that the EPA's justification to discount this high acute risk was by stating that it could have used the acute exposure guideline level (AEGL) or ERPG level to develop a lower acute risk value than the value developed for the published risk assessment which was based on the REL. The commenter stated that the AEGL and ERPG level are designed to be used in a true emergency and not to set health protective standards that will generally apply at all times, adding that the AEGL, unlike the REL, does not incorporate consideration of vulnerability, such as for children, or community exposure over time. The commenter stated that the use of the AEGL and ERPG numbers would be expected to substantially underestimate risk and using them as justification to discount the high acute risk is arbitrary and capricious.

Response C.4: As an initial matter, we disagree with the characterization that the work practice standards in the December 2015 rule for flares and PRDs will allow non-routine events to occur more frequently than they do now. Prior to promulgation of the flare requirements and the PRD provisions, the MACT did not include any specific regulatory requirements that applied to these events. As noted in sections III.A and B above, the final work practice standards include requirements that are designed to reduce the number and magnitude of these types of releases. The commenters have not explained why the new requirements would increase the frequency and/or magnitude of these events.

In May 2018, based on examination of California EPA's acute (1-hour) REL for benzene, and considering aspects of the methodology used in the derivation of the value and how this assessment stands in comparison to the Agency for Toxic Substances and Disease Registry's toxicological assessment, EPA toxicologists decided it is not appropriate to use the benzene REL value to support the EPA's RTR rules. In lieu of using the REL in RTR risk assessments, the EPA is now evaluating acute benzene risks by comparing potential exposure levels to the ERPG–1 values. In this case, the acute HQ value from non-routine PRD and flare emissions is 0.07 when comparing ambient levels to the ERPG–1. To better characterize the potential health risks associated with estimated worst-case acute exposures to HAP, and in response to a key recommendation from the Science Advisory Board's peer review of the EPA's RTR risk assessment methodologies, we now examine a wider range of available acute health metrics than we do for our chronic risk assessments. This is in acknowledgement that there are generally more data gaps and uncertainties in acute reference values than there are in chronic reference values. The acute REL represents a health-protective level of exposure, with effects not anticipated below those levels, even for repeated exposures. Although the potential for effects increases as exposure concentration increases above the acute REL, the level of exposure greater than the REL that would cause health effects is not specifically known. Therefore, when an REL is exceeded and an AEGL–1 or ERPG–1 level is available (*i.e.,* levels at which mild, reversible effects are anticipated in the general public for a single exposure), we typically use them as an additional comparative measure, as they provide an upper bound for exposure levels above which exposed individuals could experience effects. The worst-case maximum estimated 1-hour exposure to benzene outside the facility fence line is less than the AEGL–1 or ERPG–1 levels.

3. What is the EPA's final decision on the risk assessment?

As supported by the screening analysis published with the December 2015 rule, the additional risk from the PRD and emergency flaring work practice standards did not significantly alter the risk estimates in the EPA's 2014 analysis. In response to the current proposal, we did not receive any new information or other basis that would support a change to the risk analysis and the determination that the risk from the source category is acceptable and that, as modified by the December 2015 rule, the MACT standards provide an ample margin of safety to protect public health.

D. Issue 4: Alternative Work Practice Standards for DCUs Employing the Water Overflow Design

1. What is the history of the alternative work practice standards for DCUs employing the water overflow design?

In the December 2015 rule, we finalized MACT standards for DCU decoking operations. The rule provided that existing DCU-affected sources must comply with a 2 psig or 220 degrees Fahrenheit (°F) limit in the drum overhead line determined on a rolling 60-event basis prior to venting to the atmosphere, draining, or deheading the coke drum. New DCU-affected sources must comply with a 2.0 psig or 218 °F limit in the drum overhead line on a per-event, not-to-exceed basis. In the

December 2015 rule, we also finalized an alternative requirement that we did not propose to address DCU with water overflow design, where pressure monitoring would not be appropriate. As part of these provisions, we included a new requirement in the December 2015 rule for DCU with water overflow design to hard-pipe the overflow drain water to the receiving tank via a submerged fill pipe (pipe below the existing liquid level) whenever the overflow water exceeds 220 °F.

We requested public comment on the alternative work practice standard for delayed coking units employing a water overflow design provided in 40 CFR 63.657(e).

In response to the comments received on the October 2016 proposed notice of reconsideration regarding the alternative work practice standards for DCU employing the water overflow design, we proposed amendments on April 10, 2018 (April 2018 proposal) (see 83 FR 15458), to the water overflow requirements in 40 CFR 63.657(e). The EPA has issued a final rule which was promulgated on November 26, 2018 (November 2018 rule) fully addressing this issue and responding to all of the comments on the proposal for this rule as well as the April 2018 proposal.

E. Issue 5: Alternative Sampling Frequency for Burden Reduction for Fenceline Monitoring

1. What is the history of the alternative sampling frequency for burden reduction for fenceline monitoring?

In the December 2015 rule, we revised Refinery MACT 1 to establish a work practice standard requiring refinery owners to monitor benzene concentrations around the fenceline or perimeter of the refinery. We promulgated new EPA Methods 325A and B which specify monitor siting and quantitative sample analysis procedures. The work practice is designed to improve the management of fugitive emissions at petroleum refineries through the use of passive monitors by requiring sources to implement corrective measures if the benzene concentration in air attributable to emissions from the refinery exceeds a fenceline benzene concentration action level. The work practice requires refinery owners to maintain fenceline benzene concentrations at or below the concentration action level of 9 $\mu g/m^3$. In the December 2015 rule, we included provisions that were not proposed that would allow for reduced monitoring frequency (after 2 years of continual monitoring) at monitoring locations that record concentrations below 0.9 $\mu g/m^3$ [see 40 CFR 63.658(e)(3)].

We requested public comment on the provision allowing refineries to reduce the frequency of fenceline monitoring at monitoring locations that consistently record benzene concentrations below 0.9 $\mu g/m^3$.

2. What comments were received on the alternative sampling frequency for fenceline monitoring?

Comment E.1: Commenters asserted that setting the threshold for reducing the frequency of fenceline monitoring at 0.9 $\mu g/m^3$ is arbitrary and capricious. The commenters stated that the EPA's modeling predicted that more than half (81 of 142) of the refineries modeled would have fenceline concentrations equal to or less than 0.4 $\mu g/m^3$, and, thus, it is unlikely these facilities will have any monitors register concentrations in excess of the threshold. Therefore, these refineries will likely qualify for reduced monitoring, although they could have malfunctioning equipment causing benzene levels to be double the EPA's modeled amount.

The commenter added that while the fenceline concentrations modeled by the EPA do not include background ambient concentrations of benzene which will contribute to the benzene concentration measured at each monitor, it is still likely that the eligibility threshold for reduced frequency monitoring is too high and will allow operators to reduce the monitoring frequency at downwind monitors. The commenter supported this statement by referencing the API Corrected Fenceline Monitoring Results, Docket ID Item No. EPA–HQ–OAR–2010–0682–0752, which showed that at least 25 percent of facilities would be eligible for reduced monitoring at more than half of the monitoring sites based on the 0.9 $\mu g/m^3$ threshold.

Response E.1: We disagree that entire refineries will be able to qualify for reduced monitoring frequency. As the commenters themselves noted, the Agency's modeled concentrations provide only the impact of refinery emissions on the ambient air concentration (the ΔC) and do not include background concentrations. The modeling does not allow us to evaluate the total (refinery plus background) concentration level at any one location. Second, we note that the API study was a 3-month study that occurred primarily in the winter months when fugitive emissions are expected to be at their lowest. We also considered the Corpus Christi year-long study and a comparison of the concentrations observed throughout the year. That study showed that benzene concentrations at the fenceline are higher during warmer weather because most fugitive emission sources, such as storage tanks and wastewater, have a significant temperature dependency. The reduced monitoring provisions require 2 full years (52 consecutive 2-week samples) where the highest single value, not the average concentration at that location, is less than 0.9 $\mu g/m^3$. Based on the data we have available, we consider that only a few monitoring locations will qualify for reduced frequency monitoring based on this 2-year requirement that all sample concentrations at the location are less than 0.9 $\mu g/m^3$.

In addition, we selected this value to be consistent with the minimum detection limit we required for an alternative monitoring method. It seemed incongruous to allow an alternative monitoring method with a detection limit of 0.9 $\mu g/m^3$ to be used to comply with the rule but then establish a burden reduction alternative that used a lower concentration level. Ultimately, we are confident that only a limited number of sampling locations at any petroleum refinery will meet the burden reduction criteria. We considered it reasonable to provide incentives for refinery owners or operators to achieve even greater reductions than are required by the 9 $\mu g/m^3$ ΔC action level, and the final burden reduction provisions provide such an incentive without compromising the overall objectives of the program.

Comment E.2: One commenter stated that the provisions allowing refineries to reduce the frequency of fenceline monitoring are unlawful and are arbitrary and capricious. To support this statement, the commenter stated that a reduction in burden to the fenceline monitoring program will not allow the program to serve its intended purpose: To enable operators to identify leaks or operating problems at equipment that cannot practically be monitored, tested, or evaluated for compliance on a frequent basis. In further support of their argument, the commenters explained that the risk findings for the December 2015 rule hinge on the frequency of the fenceline monitoring cycle. The commenter stated that the EPA is on record stating that if the emission inventories or risk assessment do understate actual emissions, as some commenters have alleged, the fenceline monitoring and corrective action requirements will ensure refineries reduce their actual emissions to levels comparable to their emissions inventories, and that in doing so, will

ensure communities surrounding petroleum refineries would be protected to acceptable risk levels. Therefore, the commenter asserted that it is imperative for the EPA to maintain the 2-week monitoring cycle to ensure operators are quickly identifying malfunctioning equipment and to close the gap between actual and reported emissions.

On the other hand, some commenters stated that the alternative monitoring provisions did not go far enough at reducing burden. Some commenters suggested that after 2 years of demonstrating a background-corrected maximum fenceline annual average concentration (ΔC) below the action level, monitoring frequency be reduced to a 2-week period every quarter for all monitoring locations. If the background-corrected annual average benzene concentration based on the quarterly monitoring exceeds the action level, a return to more frequent monitoring could be required RCA/CAA requirement. The reduced monitoring frequency could be available again after 1 year of meeting the action level. Another commenter recommended that the reduced monitoring provision be removed in favor of a one-time demonstration that the annual fenceline benzene ΔC concentration is less than 50 percent of the action level during normal operations.

Response E.2: With respect to the commenter's opposition to the alternative sampling frequency, it is important to understand that the alternative sampling frequency provision in the December 2015 rule does not reduce the frequency by which the ΔC values must be determined. This is because the reduced sampling frequency provision will impact only selected locations that have monitored benzene concentrations below 0.9 μg/m^3 based on 2 full years of data. Refineries will still collect samples at all other locations during each 2-week period and will still determine the ΔC value for each sampling interval and include the ΔC for the sampling interval in the annual average ΔC value calculation. Therefore, we still expect the fenceline monitoring program as included in the December 2015 rule to achieve its purpose of more timely detection and correction of issues that can lead to high fugitive emissions.

The burden reduction alternatives suggested by some commenters would significantly limit the effectiveness of the fenceline monitoring program to identify issues early. A one-time determination completely defeats this purpose and could not possibly be done in a manner representative of the variety of circumstances that can occur throughout the year or the lifetime of a facility. The purpose of the fenceline monitoring program is to allow for detection and correction of issues that may cause abnormally high emissions, such as large leaks in valves, tears in rim seals of floating roof storage vessels, and other unexpected, difficult to predict events. A one-time determination does not allow the fenceline monitoring program to timely and effectively identify these issues on an on-going basis.

While quarterly determinations would be more effective than a one-time determination for on-going fugitive management, quarterly determinations are less effective in improving fugitive emissions management than continual 2-week sampling. First, for large leak events, the emissions may continue for months prior to being detected under quarterly monitoring versus being detected in a week or two under continual 2-week sampling. Thus, the emission reduction achieved by the quarterly monitoring would not be as great as by continual 2-week monitoring. Second, under the quarterly monitoring option, there would be large periods of time when no monitoring will be performed. The passive diffusive tubes cannot be deployed over such a long time period. Thus, we assume that quarterly monitoring would consist of a 2-week sampling period once every quarter. As such, for more than 80 percent of the time, no monitoring would be conducted at the fenceline. Consequently, quarterly monitoring would often miss periodic emission events, such as tank cleaning and/or filling, which can lead to high short-term emissions. These short-term events can contribute significantly to a facility's emissions and their contribution would be captured via the continual 2-week sampling, but likely missed under a quarterly monitoring approach. In order to effectively manage all fugitive emission sources, including periodic releases, we determined that the continual 2-week sampling period should be maintained for the overall program. By providing a monitoring skip period only to locations that do not exceed 0.9 μg/m^3 for any sampling interval for 2 full years (52 consecutive 2-week sampling periods), we maintain continual 2-week sampling at all locations that may contribute to an exceedance of the action level and ensure on-going enhanced management of fugitive emissions.

Comment E.3: Commenters stated that the rule does not include provisions for re-instating the monitoring frequency for those monitors which may at one time qualify for reduced monitoring.

Response E.3: We disagree. Section 63.658(e)(v) of the final rule provides that any location with a value above 0.9 μg/m^3 while reduced monitoring is being implemented will subject the owner or operator to a 3-month ''probationary period'' where samples must be collected every 2 weeks at that location. If the concentrations during the probationary period are all at or below 0.9 μg/m^3, the owner or operator may continue with the monitoring frequency prior to the excursion. If any other sample during the probationary period exceeds 0.9 μg/m^3, then the owner or operator must comply with the more stringent monitoring requirements and would not be eligible for reduced monitoring frequency until completion of a new 2-year period at that more stringent monitoring frequency.

Comment E.4: A commenter stated that despite the EPA's claims that it is allowing less frequent monitoring to reduce burden, there is no quantified or otherwise evaluated data available in the record related to the actual burden reduction.

Response E.4: We did not specifically develop burden reduction estimates associated with this provision for several reasons. First, fenceline monitoring must be performed for a full 2 years prior to the burden reduction provisions applying to any monitoring location, so estimating the burden of the fenceline monitoring provisions without consideration of the burden reduction provisions provides an accurate estimate of the annual burden for the first 2 years. Second, we were uncertain how many monitoring locations would qualify for the burden reduction provision. Third, with respect to the burden estimate for the December 2015 rule as provided in the Supporting Statement for the Office of Management and Budget's (OMB's) ICR, we estimated the costs of the on-going fenceline monitoring program assuming all samples would continue to be collected during the 3-year period covered by the ICR.

Based on the burden estimate detail provided in the attachments to the memorandum, ''Fenceline Monitoring Impact Estimates for Final Rule'' (see Docket ID Item No. EPA–HQ–OAR–2010–0682–0749), we estimate that each time a sample does not need to be collected at a specific location there will be a burden reduction of 0.3 technical hours (0.25 hours reduced during sample collection and 0.05 hours reduced during sample analyses). Considering management and clerical hours, the total burden reduction per sample skipped would be 0.35 hours and approximately $29. As an example

of potential burden reduction, if a facility could use the monthly reduced monitoring provisions for two locations in a given year (26 skipped samples, 13 at each site), the burden reduction for that facility would be 9 hours and $745 each year.

Comment E.5: One commenter recommended that the EPA reduce burden by providing a mechanism to use existing HAP ambient monitoring programs as an acceptable alternative to the EPA fenceline monitoring program.

Response E.5: We provided a mechanism and criteria by which a refinery owner or operator may submit a request for an alternative test method to the passive diffusive tube fenceline monitoring methods (EPA Methods 325A and 325B). These provisions are included at 40 CFR 63.658(k) of the final rule.

3. What is EPA's final decision on the alternative sampling frequency for fenceline monitoring?

For fenceline monitoring requirements, the alternative sampling frequency requirements will not alter the effectiveness of the program as the requirements do not change the facility-level procedures and frequency for calculating and reporting ΔC (see Response E.1). Furthermore, the 0.9 μg/m^3 threshold for reducing the frequency of fenceline monitoring is appropriate based on the available data and it is consistent with the minimum detection limit required for alternative monitoring methods. We have not been presented with any comments and/or information in response to the October 2016 proposed notice of reconsideration relative to the alternative sampling frequency for fenceline monitoring which will result in any changes to the December 2015 rule.

F. Additional Proposed Clarifying Amendments

1. What is the history of the proposed clarifying amendments?

The EPA proposed to amend provisions related to the overlap requirements for equipment leaks that are contained in Refinery MACT 1 and in the Refinery Equipment Leak NSPS (40 CFR part 60, subpart GGGa). The Refinery MACT 1 provision at 40 CFR 63.640(p)(2) states that equipment leaks that are subject to the provisions in the Refinery Equipment Leak NSPS (40 CFR part 60, subpart GGGa) are only required to comply with the provisions in the Refinery Equipment Leak NSPS. However, the Refinery Equipment Leak NSPS does not include the new work practice standards finalized in the final Refinery MACT 1 at 40 CFR 63.648(j) which apply to releases from PRDs. We intended that these new work practice standards would be applicable to all PRDs at refineries, including those PRDs subject to the requirements in the Refinery Equipment Leaks NSPS. In order to provide clarity and assure that refiners subject to these provisions fully understand their compliance obligations, we proposed to modify the equipment leak requirement to provide that PRDs in organic HAP service must comply with the requirements in Refinery MACT 1 at 40 CFR 63.648(j) for PRDs. We also proposed to amend the introductory text in 40 CFR 63.648(j) to reference the Refinery Equipment Leaks NSPS at 40 CFR 60.482–4a and amend paragraphs (j)(2)(i) through (iii) of Refinery MACT 1 to correct the existing reference to 40 CFR 60.485(b), to instead refer to 40 CFR 60.485(c) and 40 CFR 60.485a(c). As noted in section III.B.1 of this preamble, we also proposed to revise the incorrect cross-reference to PRD prevention measures at 40 CFR 63.670(o)(1)(ii)(B) from 40 CFR 63.648(j)(5) to 63.648(j)(3)(ii). However, we concluded it would be more accurate to cross-reference 40 CFR 63.648(j)(3)(ii)(A) through (E) rather than the entirety of 40 CFR 63.648(j)(3)(ii). Therefore, in the April 2018 proposal, we proposed this clarified revision and finalized this revision as proposed in the November 2018 rule.

2. What comments were received on the proposed clarifying amendments?

Comment F.1: Commenters asserted that the EPA's proposal to modify the provisions in 40 CFR 63.640(p)(2) by providing that PRDs in organic HAP service must comply with the requirements in 40 CFR 63.648(j) is arbitrary and capricious. Commenters opposed the proposed revisions claiming they would enshrine exemptions from NSPS equipment leak standards for new and modified PRD or allow for substitution of NSPS requirements for the work practice standards in 40 CFR 63.648(j), which they believe are exemptions from malfunction requirements. They added that these provisions amend the NSPS for Petroleum Refineries without satisfying the appropriate procedural and substantive legal tests required to do so.

Response F.1: It appears that the commenter misunderstands the proposed amendment. When we revised Refinery MACT 1 at 40 CFR 63.648(j) to add PRD requirements, we failed to recognize that the NSPS overlap provisions in 40 CFR 63.640(p)(2) could be used as a ''loophole'' by refinery owners and operators to not implement three prevention measures and to not perform the root cause analysis or implement corrective actions. This is because the NSPS subpart GGGa does not have any pressure release management requirements. In the absence of the proposed amendment, the existing overlap provision states that ''Equipment leaks that are also subject to the provisions of 40 CFR part 60, subpart GGGa, are required to comply only with the provisions specified in 40 CFR part 60, subpart GGGa.'' Thus, PRDs subject to 40 CFR part 60, subpart GGGa, were inadvertently exempted from the new PRD pressure release management requirements. We understand that the commenter does not support some of the provisions in the pressure release management requirements in the final Refinery MACT 1 rule, but these requirements are clearly more stringent than the NSPS subpart GGGa provisions for PRDs which only require monitoring of the PRD after a release, and do not have any restrictions or requirements to limit PRD releases. We note that in addition to the new PRD requirements established in the December 2015 rule, the Refinery MACT 1 PRD requirements at 40 CFR 63.648(j)(1) and (2) fully include those requirements that would apply under 40 CFR part 60, subpart GGGa. In reviewing standards covering the same pieces of equipment, we look to identify the overlapping standards and require the owner or operator to comply only with the most stringent standard. After the revisions to the PRD requirements in Refinery MACT 1, we determined that the equipment leak provisions for PRDs in Refinery MACT 1 are more stringent than those in 40 CFR part 60, subpart GGGa. By revising this overlap provision, we are requiring equipment leak sources that are subject to both rules to comply with the 40 CFR part 60, subpart GGGa for most equipment leak sources but PRDs must comply with the PRD requirements in Refinery MACT 1. This revision will require PRDs that are also subject to 40 CFR part 60, subpart GGGa, to implement prevention measures for PRDs, conduct root cause analyses, and implement corrective actions to prevent a similar release from occurring. Because compliance with 40 CFR part 60, subpart GGGa is not sufficient to demonstrate compliance with Refinery MACT 1 PRD provisions, revision of the existing overlap provisions was deemed critical to ensure all Refinery MACT 1 PRDs comply with the new pressure release management requirements.

The commenter is also mistaken that this provision amends the NSPS. Rather, it defines what sources subject to Refinery MACT 1 must do to comply with Refinery MACT 1. Specifically, for equipment leaks at facilities subject to *both* Refinery MACT 1 and 40 CFR part 60, subpart GGGa, owners and operators must comply with the requirements in Refinery MACT 1 (40 CFR part 63, subpart CC) for PRDs associated with the leaking equipment because the requirements in Refinery MACT 1 for PRDs are more stringent than those in 40 CFR part 60, subpart GGGa. The NSPS requirements are not modified by this change to 40 CFR part 63, subpart CC and remain in effect for PRDs associated with equipment leaks that are not subject to Refinery MACT 1.

Comment F.2: Commenters supported the clarification to the overlap provisions for equipment leaks in 40 CFR 63.640(p)(2), but also request that a delay of repair provision be included in 40 CFR 63.648 because other equipment leak rules (such as 40 CFR part 60, subparts GGG and GGGa) potentially applicable to refinery PRDs include such delay of repair provisions. The commenters noted that PRDs subject to 40 CFR part 60, subpart GGG, are made subject to 40 CFR 63.648(j) by 40 CFR 63.640(p)(1).

Response F.2: By proposing a technical correction to 40 CFR 63.640(p)(2), the EPA was not proposing to re-open the substantive requirements of 40 CFR 63.640 nor of other provisions, such as 40 CFR 63.648 that may be referenced in 40 CFR 63.640. We also disagree that PRDs are allowed to comply with delay of repair provisions in the NSPS (subparts GGG/GGGa or VV/Vva) beyond taking the equipment out of VOC service. In any case, we determined that it was contrary to safety and good air pollution control practices to continue to operate a process unit without a properly functioning PRD as PRDs are, primarily, safety devices.

3. What is the EPA's final decision on the proposed clarifying amendments?

We are finalizing the amendment that equipment leaks that are subject to the provisions of the Refinery Equipment Leak NSPS pursuant to 40 CFR 63.640(p)(2) must comply with the requirements in Refinery MACT 1 at 40 CFR 63.648(j) for PRDs, as proposed. We are also finalizing the amendment to the introductory text in 40 CFR 63.648(j) to reference Refinery Equipment Leaks NSPS at 40 CFR 60.482–4a and the amendment to paragraphs (j)(2)(i) through (iii) of Refinery MACT 1 to correct the existing reference to 40 CFR 60.485(b), which should refer to 40 CFR 60.485(c) and 40 CFR 60.485a(c), as proposed. Finally, as noted in the history of these clarifying amendments, we addressed the proposed amendments at 40 CFR 63.670(o)(1)(ii)(B) in a final rule issued in November 2018 to more accurately cross-reference 40 CFR 63.648(j)(3)(ii)(A) through (E) rather than the entirety of 40 CFR 63.648(j)(3)(ii).

G. Corrections to November 2018 Final Rule

There were a number of publication errors associated with the November 2018 rule. Several of these errors were associated with inaccurate amendatory instructions or editorial errors in the final amendment package. We are correcting these errors to finalize the amendments consistent with the intent of the preamble to the November 2018 final rule (83 FR 60696). Table 2 of this preamble provides a summary of the publication and editorial errors in the November 2018 rule that we are correcting in this final action.

TABLE 2—SUMMARY OF CORRECTIONS TO NOVEMBER 2018 RULE

Provision	Issue	Final revision
Refinery MACT 1		
40 CFR 63.641, definition of ''Reference control technology for storage vessels''.	Incorrect amendatory instructions; the Code of Federal Regulations could not implement revisions as instructed.	Revise instructions and reprint the entire definition to more easily implement revisions to the definition of ''Reference control technology for storage vessels'' consistent with the intent of the preamble to the November 2018 final rule.
40 CFR 63.643(c)(1)(v)	There is a comma after the word ''less.'' It should be a period.	Amend 40 CFR 63.643(c)(1)(v) to replace the comma after the word ''less'' with a period.
40 CFR 63.655(f)(1)(iii)	Subordinate paragraphs (A) and (B) were inadvertently removed due to incorrect amendatory instructions.	Amend 40 CFR 63.655(f)(1)(iii) to include subordinate paragraphs (A) and (B) consistent with the intent of the preamble to the November 2018 final rule.
40 CFR 63.655(f)(2)	Subordinate paragraphs (i) through (iii) were inadvertently removed due to incorrect amendatory instructions.	Amend 40 CFR 63.655(f)(2) to include subordinate paragraphs (i) through (iii) consistent with the intent of the preamble to the November 2018 final rule.
40 CFR 63.655(h)(10)	The introductory text associated with this paragraph was missing from the regulatory text included in the rule as published in the **Federal Register**.	Amend 40 CFR 63.655(h)(10) introductory text to read as ''*Extensions to electronic reporting deadlines.*''
40 CFR 63.655(i)(11) ''. . . For each pilot-operated pressure relief device subject to the requirements at 40 CFR 63.648(j)(4)(ii) or (iii), . . .''.	Pilot-operated PRDs are not subject to requirements at 40 CFR 63.648(j)(4)(iii) so the inclusion of ''or (iii)'' was incorrect.	Amend 40 CFR 63.655(i)(11) introductory text to remove ''or (iii).''
40 CFR 63.660(i)(2)(iii). ''Use a cap, blind flange, plug, or a second valve for an open-ended valves or line . . .''.	Use of the plural in referencing ''. . . an open-ended valves . . .'' is incorrect grammar.	Amend 40 CFR 63.660(i)(2)(iii) to read ''Use a cap, blind flange, plug, or a second valve for an open-ended valve or line . . .''
40 CFR 63.670(d)(2)	Equation term NHV_{vg} incorrectly references paragraph (l)(4) and should instead reference (k)(4).	Amend the reference in the equation term NHV_{vg} in 40 CFR 63.670(d)(2) from (l)(4) to (k)(4).

TABLE 2—SUMMARY OF CORRECTIONS TO NOVEMBER 2018 RULE—Continued

Provision	Issue	Final revision
Refinery MACT 2		
Table 4 to Subpart UUU, Item 9.c. "XRF procedure in appendix A to this subpart 1; . . .".	The "1" should be superscripted as it is intended to identify footnote 1.	Amend Item 9.c. of Table 4 to Subpart UUU to read. "XRF procedure in appendix A to this subpart; [1] . . ."

IV. Summary of Cost, Environmental, and Economic Impacts

As described in section III of this preamble, the EPA is not revising the 2015 Rule requirements for: (1) The work practice standards for PRDs; (2) the work practice standards for emergency flaring events; (3) the assessment of risk as modified based on implementation of these PRD and emergency flaring work practice standards; or (4) the provision allowing refineries to reduce the frequency of fenceline monitoring at sampling locations that consistently record benzene concentrations below 0.9 μg/m^3. In this action, the EPA is finalizing two clarifying amendments which were included in the proposed notice of reconsideration. These amendments are not expected to have any cost, environmental, or economic impacts. Therefore, the burden estimates and economic impact analysis associated with the December 2015 rule (available in Docket ID No. EPA–HQ–OAR–2010–0682) have not been altered as a result of this action. We note that in the November 2018 rule, the EPA revised the requirements for the alternative water overflow provisions for DCUs. A discussion of the cost, environmental, and economic impacts of the amendments for the water overflow provisions for DCUs were included in the April 2018 proposal and the November 2018 rule.

V. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at *https://www.epa.gov/laws-regulations/laws-and-executive-orders.*

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 and was, therefore, not submitted to OMB for review.

B. Executive Order 13771: Reducing Regulation and Controlling Regulatory Costs

This action is not an Executive Order 13771 regulatory action because this action is not significant under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulations at 40 CFR part 63, subparts CC and UUU, and has assigned OMB control numbers 2060–0340 and 2060–0554. The revisions adopted in this action are clarifications and technical corrections that do not affect the estimated burden of the existing rule. Therefore, we have not revised the information collection request for the existing rule.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule. The rule revisions being made through this action consist of clarifications and technical corrections which do not change the expected economic impact analysis performed for the December 2015 rule. We have, therefore, concluded that this action will have no net regulatory burden for all directly regulated small entities.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

F. 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.

G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. 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.

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

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the environmental health or safety risks addressed by this action do not present a disproportionate risk to children. The actions taken in this rulemaking are technical clarifications and corrections and they do not affect risk for any populations.

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

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

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

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The actions taken in this rulemaking are technical clarifications and corrections and they do not affect the risk for any populations.

L. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

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

Dated: January 14, 2020.

Andrew R. Wheeler,

Administrator.

For the reasons set forth in the preamble, the Environmental Protection Agency is amending 40 CFR part 63 as follows:

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

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

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

Subpart CC—National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries

■ 2. Section 63.640 is amended by revising paragraph (p)(2) to read as follows:

§ 63.640 Applicability and designation of affected source.

* * * * *

(p) * * *

(2) Equipment leaks that are also subject to the provisions of 40 CFR part 60, subpart GGGa, are required to comply only with the provisions specified in 40 CFR part 60, subpart GGGa, except that pressure relief devices in organic HAP service must only comply with the requirements in § 63.648(j).

* * * * *

■ 3. Section 63.641 is amended by revising the definition of ''Reference control technology for storage vessels'' to read as follows:

§ 63.641 Definitions.

* * * * *

Reference control technology for storage vessels means either:

(1) For Group 1 storage vessels complying with § 63.660:

(i) An internal floating roof, including an external floating roof converted to an internal floating roof, meeting the specifications of §§ 63.1063(a)(1)(i), (a)(2), and (b) and 63.660(b)(2);

(ii) An external floating roof meeting the specifications of §§ 63.1063(a)(1)(ii), (a)(2), and (b) and 63.660(b)(2); or

(iii) [Reserved]

(iv) A closed-vent system to a control device that reduces organic HAP emissions by 95 percent, or to an outlet concentration of 20 parts per million by volume (ppmv).

(v) For purposes of emissions averaging, these four technologies are considered equivalent.

(2) For all other storage vessels:

(i) An internal floating roof meeting the specifications of § 63.119(b) of subpart G except for § 63.119(b)(5) and (6);

(ii) An external floating roof meeting the specifications of § 63.119(c) of subpart G except for § 63.119(c)(2);

(iii) An external floating roof converted to an internal floating roof meeting the specifications of § 63.119(d) of subpart G except for § 63.119(d)(2); or

(iv) A closed-vent system to a control device that reduces organic HAP emissions by 95 percent, or to an outlet concentration of 20 parts per million by volume.

(v) For purposes of emissions averaging, these four technologies are considered equivalent.

* * * * *

■ 4. Section 63.643 is amended by revising paragraph (c)(1)(v) to read as follows:

§ 63.643 Miscellaneous process vent provisions.

* * * * *

(c) * * *

(1) * * *

(v) If, after applying best practices to isolate and purge equipment served by a maintenance vent, none of the applicable criterion in paragraphs (c)(1)(i) through (iv) of this section can be met prior to installing or removing a blind flange or similar equipment blind, the pressure in the equipment served by the maintenance vent is reduced to 2 psig or less. Active purging of the equipment may be used provided the equipment pressure at the location where purge gas is introduced remains at 2 psig or less.

* * * * *

■ 5. Section 63.648 is amended by revising paragraphs (j) introductory text and (j)(2)(i) through (iii) to read as follows:

§ 63.648 Equipment leak standards.

* * * * *

(j) Except as specified in paragraph (j)(4) of this section, the owner or operator must comply with the requirements specified in paragraphs (j)(1) and (2) of this section for pressure relief devices, such as relief valves or rupture disks, in organic HAP gas or vapor service instead of the pressure relief device requirements of § 60.482–4 of this chapter, § 60.482–4a of this chapter, or § 63.165, as applicable. Except as specified in paragraphs (j)(4) and (5) of this section, the owner or operator must also comply with the requirements specified in paragraph (j)(3) of this section for all pressure relief devices in organic HAP service.

* * * * *

(2) * * *

(i) If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as specified in § 60.485(c) of this chapter, § 60.485a(c) of this chapter, or § 63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(ii) If the pressure relief device includes a rupture disk, either comply with the requirements in paragraph (j)(2)(i) of this section (not replacing the rupture disk) or install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release. The owner or operator must conduct instrument monitoring, as specified in § 60.485(c) of this chapter, § 60.485a(c) of this chapter or § 63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(iii) If the pressure relief device consists only of 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. The owner or operator may not initiate startup of the equipment served by the rupture disk until the rupture disc is replaced. The owner or operator must conduct instrument monitoring, as specified in § 60.485(c) of this chapter, § 60.485a(c) of this chapter, or § 63.180(c), as applicable, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

* * * * *

■ 6. Section 63.655 is amended by revising paragraphs (f)(1)(iii), (f)(2), adding a paragraph (h)(10) subject heading, and revising paragraph (i)(11) introductory text to read as follows:

§ 63.655 Reporting and recordkeeping requirements.

* * * * *

(f) * * *

(1) * * *

(iii) For miscellaneous process vents controlled by control devices required to be tested under §§ 63.645 and 63.116(c), performance test results including the information in paragraphs (f)(1)(iii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in § 63.645 and that the test conditions are representative of current operating conditions. If the performance test is submitted electronically through the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) in accordance with § 63.655(h)(9), the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in the Notification of Compliance Status in lieu of the performance test results. The performance test results must be submitted to CEDRI by the date the Notification of Compliance Status is submitted.

(A) The percentage of reduction of organic HAP's or TOC, or the outlet concentration of organic HAP's or TOC (parts per million by volume on a dry basis corrected to 3 percent oxygen), determined as specified in § 63.116(c) of subpart G of this part; and

(B) The value of the monitored parameters specified in table 10 of this subpart, or a site-specific parameter approved by the permitting authority, averaged over the full period of the performance test.

* * * * *

(2) If initial performance tests are required by §§ 63.643 through 63.653, the Notification of Compliance Status report shall include one complete test report for each test method used for a particular source. On and after February 1, 2016, for data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test, you must submit the results in accordance with § 63.655(h)(9) by the date that you submit the Notification of Compliance Status, and you must include the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted in the Notification of Compliance Status. All other performance test results must be reported in the Notification of Compliance Status.

(i) For additional tests performed using the same method, the results specified in paragraph (f)(1) of this section shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(iii) Performance tests are required only if specified by §§ 63.643 through 63.653 of this subpart. Initial performance tests are required for some kinds of emission points and controls. Periodic testing of the same emission point is not required.

* * * * *

(h) * * *

(10) *Extensions to electronic reporting deadlines.*

* * * * *

(i) * * *

(11) For each pressure relief device subject to the pressure release management work practice standards in § 63.648(j)(3), the owner or operator shall keep the records specified in paragraphs (i)(11)(i) through (iii) of this section. For each pilot-operated pressure relief device subject to the requirements at § 63.648(j)(4)(ii), the owner or operator shall keep the records specified in paragraph (i)(11)(iv) of this section.

* * * * *

■ 7. Section 63.660 is amended by revising paragraph (i)(2)(iii) to read as follows:

§ 63.660 Storage vessel provisions.

* * * * *

(i) * * *

(2) * * *

(iii) Use a cap, blind flange, plug, or a second valve for an open-ended valve or line following the requirements specified in § 60.482–6(a)(2), (b), and (c).

* * * * *

■ 8. Section 63.670 is amended by revising paragraph (d)(2) to read as follows:

§ 63.670 Requirements for flare control devices.

* * * * *

(d) * * *

(2) V_{tip} must be less than 400 feet per second and also less than the maximum allowed flare tip velocity (V_{max}) as calculated according to the following equation. The owner or operator shall monitor V_{tip} using the procedures specified in paragraphs (i) and (k) of this section and monitor gas composition and determine NHV_{vg} using the procedures specified in paragraphs (j) and (l) of this section.

$$Log_{10}(V_{max}) = \frac{NHV_{vg} + 1{,}212}{850}$$

Where:

V_{max} = Maximum allowed flare tip velocity, ft/sec.

NHV_{vg} = Net heating value of flare vent gas, as determined by paragraph (k)(4) of this section, Btu/scf.

1,212 = Constant.

850 = Constant.

* * * * *

Subpart UUU—National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

■ 9. Revise Table 4 to Subpart UUU of Part 63 to read as follows:

Table 4 to Subpart UUU of Part 63—Requirements for Performance Tests for Metal HAP Emissions From Catalytic Cracking Units

As stated in §§ 63.1564(b)(2) and 63.1571(a)(5), you shall meet each requirement in the following table that applies to you.

For each new or existing catalytic cracking unit catalyst regenerator vent . . .	You must . . .	Using . . .	According to these requirements . . .
1. Any	a. Select sampling port's location and the number of traverse ports.	Method 1 or 1A in appendix A–1 to part 60 of this chapter.	Sampling sites must be located at the outlet of the control device or the outlet of the regenerator, as applicable, and prior to any releases to the atmosphere.
	b. Determine velocity and volumetric flow rate.	Method 2, 2A, 2C, 2D, or 2F in appendix A–1 to part 60 of this chapter, or Method 2G in appendix A–2 to part 60 of this chapter, as applicable.	
	c. Conduct gas molecular weight analysis.	Method 3, 3A, or 3B in appendix A–2 to part 60 of this chapter, as applicable.	
	d. Measure moisture content of the stack gas.	Method 4 in appendix A–3 to part 60 of this chapter.	
	e. If you use an electrostatic precipitator, record the total number of fields in the control system and how many operated during the applicable performance test.		
	f. If you use a wet scrubber, record the total amount (rate) of water (or scrubbing liquid) and the amount (rate) of make-up liquid to the scrubber during each test run.		
2. Subject to the NSPS for PM in 40 CFR 60.102 and not elect § 60.100(e).	a. Measure PM emissions.	Method 5, 5B, or 5F (40 CFR part 60, appendix A–3) to determine PM emissions and associated moisture content for units without wet scrubbers. Method 5 or 5B (40 CFR part 60, appendix A–3) to determine PM emissions and associated moisture content for unit with wet scrubber.	You must maintain a sampling rate of at least 0.15 dry standard cubic meters per minute (dscm/min) (0.53 dry standard cubic feet per minute (dscf/min)).
	b. Compute coke burn-off rate and PM emission rate (lb/1,000 lb of coke burn-off).	Equations 1, 2, and 3 of § 63.1564 (if applicable).	
	c. Measure opacity of emissions.	Continuous opacity monitoring system	You must collect opacity monitoring data every 10 seconds during the entire period of the Method 5, 5B, or 5F performance test and reduce the data to 6-minute averages.
3. Subject to the NSPS for PM in 40 CFR 60.102a(b)(1) or elect § 60.100(e), electing the PM for coke burn-off limit.	a. Measure PM emissions.	Method 5, 5B, or 5F (40 CFR part 60, appendix A–3) to determine PM emissions and associated moisture content for units without wet scrubbers. Method 5 or 5B (40 CFR part 60, appendix A–3) to determine PM emissions and associated moisture content for unit with wet scrubber.	You must maintain a sampling rate of at least 0.15 dscm/min (0.53 dscf/min).
	b. Compute coke burn-off rate and PM emission rate (lb/1,000 lb of coke burn-off).	Equations 1, 2, and 3 of § 63.1564 (if applicable).	

For each new or existing catalytic cracking unit catalyst regenerator vent . . .	You must . . .	Using . . .	According to these requirements . . .
	c. Establish site-specific limit if you use a COMS.	Continuous opacity monitoring system	If you elect to comply with the site-specific opacity limit in § 63.1564(b)(4)(i), you must collect opacity monitoring data every 10 seconds during the entire period of the Method 5, 5B, or 5F performance test. For site specific opacity monitoring, reduce the data to 6-minute averages; determine and record the average opacity for each test run; and compute the site-specific opacity limit using Equation 4 of § 63.1564.
4. Subject to the NSPS for PM in 40 CFR 60.102a(b)(1) or elect § 60.100(e).	a. Measure PM emissions.	Method 5, 5B, or 5F (40 CFR part 60, appendix A–3) to determine PM emissions and associated moisture content for units without wet scrubbers. Method 5 or 5B (40 CFR part 60, appendix A–3) to determine PM emissions and associated moisture content for unit with wet scrubber.	You must maintain a sampling rate of at least 0.15 dscm/min (0.53 dscf/min).
5. Option 1a: Elect NSPS subpart J requirements for PM per coke burn-off limit, not subject to the NSPS for PM in 40 CFR 60.102 or 60.102a(b)(1).	See item 2 of this table.		
6. Option 1b: Elect NSPS subpart Ja requirements for PM per coke burn-off limit, not subject to the NSPS for PM in 40 CFR 60.102 or 60.102a(b)(1).	See item 3 of this table.		
7. Option 1c: Elect NSPS requirements for PM concentration, not subject to the NSPS for PM in 40 CFR 60.102 or 60.102a(b)(1).	See item 4 of this table.		
8. Option 2: PM per coke burn-off limit, not subject to the NSPS for PM in 40 CFR 60.102 or 60.102a(b)(1).	See item 3 of this table.		
9. Option 3: Ni lb/hr limit, not subject to the NSPS for PM in 40 CFR 60.102 or 60.102a(b)(1).	a. Measure concentration of Ni. b. Compute Ni emission rate (lb/hr).	Method 29 (40 CFR part 60, appendix A–8) Equation 5 of § 63.1564.	
	c. Determine the equilibrium catalyst Ni concentration.	XRF procedure in appendix A to this subpart; [1] or EPA Method 6010B or 6020 or EPA Method 7520 or 7521 in SW–8462; or an alternative to the SW–846 method satisfactory to the Administrator.	You must obtain 1 sample for each of the 3 test runs; determine and record the equilibrium catalyst Ni concentration for each of the 3 samples; and you may adjust the laboratory results to the maximum value using Equation 1 of § 63.1571, if applicable.
	d. If you use a continuous opacity monitoring system, establish your site-specific Ni operating limit.	i. Equations 6 and 7 of § 63.1564 using data from continuous opacity monitoring system, gas flow rate, results of equilibrium catalyst Ni concentration analysis, and Ni emission rate from Method 29 test.	(1) You must collect opacity monitoring data every 10 seconds during the entire period of the initial Ni performance test; reduce the data to 6-minute averages; and determine and record the average opacity from all the 6-minute averages for each test run. (2) You must collect gas flow rate monitoring data every 15 minutes during the entire period of the initial Ni performance test; measure the gas flow as near as practical to the continuous opacity monitoring system; and determine and record the hourly average actual gas flow rate for each test run.

For each new or existing catalytic cracking unit catalyst regenerator vent . . .	You must . . .	Using . . .	According to these requirements . . .
10. Option 4: Ni per coke burn-off limit, not subject to the NSPS for PM in 40 CFR 60.102 or 60.102a(b)(1).	a. Measure concentration of Ni.	Method 29 (40 CFR part 60, appendix A–8). Equations 1 and 8 of § 63.1564.	
	b. Compute Ni emission rate (lb/1,000 lb of coke burn-off).		
	c. Determine the equilibrium catalyst Ni concentration.	See item 9.c. of this table	You must obtain 1 sample for each of the 3 test runs; determine and record the equilibrium catalyst Ni concentration for each of the 3 samples; and you may adjust the laboratory results to the maximum value using Equation 2 of § 63.1571, if applicable.
	d. If you use a continuous opacity monitoring system, establish your site-specific Ni operating limit.	i. Equations 9 and 10 of § 63.1564 with data from continuous opacity monitoring system, coke burn-off rate, results of equilibrium catalyst Ni concentration analysis, and Ni emission rate from Method 29 test.	(1) You must collect opacity monitoring data every 10 seconds during the entire period of the initial Ni performance test; reduce the data to 6-minute averages; and determine and record the average opacity from all the 6-minute averages for each test run. (2) You must collect gas flow rate monitoring data every 15 minutes during the entire period of the initial Ni performance test; measure the gas flow rate as near as practical to the continuous opacity monitoring system; and determine and record the hourly average actual gas flow rate for each test run.
	e. Record the catalyst addition rate for each test and schedule for the 10-day period prior to the test.		
11. If you elect item 5 Option 1b in Table 1, item 7 Option 2 in Table 1, item 8 Option 3 in Table 1, or item 9 Option 4 in Table 1 of this subpart and you use continuous parameter monitoring systems.	a. Establish each operating limit in Table 2 of this subpart that applies to you.	Data from the continuous parameter monitoring systems and applicable performance test methods.	
	b. Electrostatic precipitator or wet scrubber: Gas flow rate.	i. Data from the continuous parameter monitoring systems and applicable performance test methods.	(1) You must collect gas flow rate monitoring data every 15 minutes during the entire period of the initial performance test; determine and record the average gas flow rate for each test run. (2) You must determine and record the 3-hr average gas flow rate from the test runs. Alternatively, before August 1, 2017, you may determine and record the maximum hourly average gas flow rate from all the readings.
	c. Electrostatic precipitator: Total power (voltage and current) and secondary current.	i. Data from the continuous parameter monitoring systems and applicable performance test methods.	(1) You must collect voltage, current, and secondary current monitoring data every 15 minutes during the entire period of the performance test; and determine and record the average voltage, current, and secondary current for each test run. Alternatively, before August 1, 2017, you may collect voltage and secondary current (or total power input) monitoring data every 15 minutes during the entire period of the initial performance test. (2) You must determine and record the 3-hr average total power to the system for the test runs and the 3-hr average secondary current from the test runs. Alternatively, before August 1, 2017, you may determine and record the minimum hourly average voltage and secondary current (or total power input) from all the readings.

For each new or existing catalytic cracking unit catalyst regenerator vent . . .	You must . . .	Using . . .	According to these requirements . . .
	d. Electrostatic precipitator or wet scrubber: Equilibrium catalyst Ni concentration.	Results of analysis for equilibrium catalyst Ni concentration.	You must determine and record the average equilibrium catalyst Ni concentration for the 3 runs based on the laboratory results. You may adjust the value using Equation 1 or 2 of § 63.1571 as applicable.
	e. Wet scrubber: Pressure drop (not applicable to non-venturi scrubber of jet ejector design).	i. Data from the continuous parameter monitoring systems and applicable performance test methods.	(1) You must collect pressure drop monitoring data every 15 minutes during the entire period of the initial performance test; and determine and record the average pressure drop for each test run. (2) You must determine and record the 3-hr average pressure drop from the test runs. Alternatively, before August 1, 2017, you may determine and record the minimum hourly average pressure drop from all the readings.
	f. Wet scrubber: Liquid-to-gas ratio.	i. Data from the continuous parameter monitoring systems and applicable performance test methods.	(1) You must collect gas flow rate and total water (or scrubbing liquid) flow rate monitoring data every 15 minutes during the entire period of the initial performance test; determine and record the average gas flow rate for each test run; and determine the average total water (or scrubbing liquid) flow for each test run. (2) You must determine and record the hourly average liquid-to-gas ratio from the test runs. Alternatively, before August 1, 2017, you may determine and record the hourly average gas flow rate and total water (or scrubbing liquid) flow rate from all the readings. (3) You must determine and record the 3-hr average liquid-to-gas ratio. Alternatively, before August 1, 2017, you may determine and record the minimum liquid-to-gas ratio.
	g. Alternative procedure for gas flow rate.	i. Data from the continuous parameter monitoring systems and applicable performance test methods.	(1) You must collect air flow rate monitoring data or determine the air flow rate using control room instrumentation every 15 minutes during the entire period of the initial performance test. (2) You must determine and record the 3-hr average rate of all the readings from the test runs. Alternatively, before August 1, 2017, you may determine and record the hourly average rate of all the readings. (3) You must determine and record the maximum gas flow rate using Equation 1 of § 63.1573.

[1] Determination of Metal Concentration on Catalyst Particles (Instrumental Analyzer Procedure).

[2] EPA Method 6010B, Inductively Coupled Plasma-Atomic Emission Spectrometry, EPA Method 6020, Inductively Coupled Plasma-Mass Spectrometry, EPA Method 7520, Nickel Atomic Absorption, Direct Aspiration, and EPA Method 7521, Nickel Atomic Absorption, Direct Aspiration are included in ''Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication SW–846, Revision 5 (April 1998). The SW–846 and Updates (document number 955–001–00000–1) are available for purchase from the Superintendent of Documents, U.S. Government Publishing Office, Washington, DC 20402, (202) 512–1800; and from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 487–4650. Copies may be inspected at the EPA Docket Center, William Jefferson Clinton (WJC) West Building (Air Docket), Room 3334, 1301 Constitution Ave. NW, Washington, DC; or at the Office of the Federal Register, 800 North Capitol Street NW, Suite 700, Washington, DC.

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