PREPUBLICATION NOTICE

The EPA Administrator, Michael S. Regan, signed the following Federal Register document on February 27, 2024:

Title:	Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Safer Communities by Chemical Accident Prevention
Action:	Final Rule
Docket No.:	EPA-HQ-OLEM-2022-0174

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 68

[EPA-HQ-OLEM-2022-0174; FRL-5766.6-02-OLEM]

RIN 2050-AH22

Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Safer Communities by Chemical Accident Prevention

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is amending its Risk Management Program regulations as a result of Agency review. The revisions include several changes and amplifications to the accident prevention program requirements, enhancements to the emergency preparedness requirements, improvements to the public availability of chemical hazard information, and several other changes to certain regulatory definitions or points of clarification. As major and other serious and concerning RMP accidents continue to occur, the record shows and EPA believes that this final rule will help further protect human health and the environment from chemical hazards through advancement of process safety based on lessons learned. These amendments seek to improve chemical process safety; assist in planning, preparedness, and response to Risk Management Program-reportable accidents; and improve public awareness of chemical hazards at regulated sources. While many of the provisions of this final rule reinforce each other, it is EPA's intent that each one is merited on its own, and thus severable.

DATES: This final rule is effective on **[60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA-HQ-OLEM-2022-0174. All documents in the docket are listed on the *http://www.regulations.gov* web site. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through *http://www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: Deanne Grant, Office of Emergency Management, Mail Code 5104A, Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number: 202-564-1096; email: *grant.deanne@epa.gov*.

SUPPLEMENTARY INFORMATION:

Preamble acronyms and abbreviations. EPA uses multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, EPA defines the following terms and acronyms here:

List of Abbreviations and Acronyms

ANSI	American National Standards Institute
API	American Petroleum Institute
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CCPS	Center for Chemical Process Safety
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFATS	Chemical Facility Anti-Terrorism Standards
CFR	Code of Federal Regulations
CISA	Cybersecurity & Infrastructure Security Agency
CSB	Chemical Safety and Hazard Investigation Board
CSISSFRRA	Chemical Safety Information, Site Security and Fuels Regulatory Relief Act
CVI	Chemical-terrorism Vulnerability Information
DHS	Department of Homeland Security
DOJ	Department of Justice
DOT	Department of Transportation

EHS	Extremely Hazardous Substances
EJ	Environmental Justice
E.O.	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-To-Know Act
FBI	Federal Bureau of Investigation
FOIA	Freedom of Information Act
FR	*Federal Register*
GDC	General Duty Clause
HF	hydrofluoric acid
HHC	highly hazardous chemical
ICR	Information Collection Request
IIAR	International Institute of Ammonia Refrigeration
IPAWS	Integrated Public Alert & Warning System
ISD	inherently safer design
IST	inherently safer technology
LEPC	Local Emergency Planning Committee
LOPA	Layers of Protection Analysis
NAICS	North American Industry Classification System
NASTTPO	National Association of SARA Title III Program Officials
NECI	National Enforcement and Compliance Initiative
NJDEP	New Jersey Department of Environmental Protection
NRC	National Response Center
NRI	National Risk Index
NTTAA	National Technology and Transfer Advancement Act
OCA	offsite consequence analysis
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
PES	Philadelphia Energy Solutions
PHA	process hazard analysis
PHMSA	Pipeline and Hazardous Materials Safety Administration
PRA	Paperwork Reduction Act
PSI	process safety information
PSM	process safety management
RAGAGEP	recognized and generally accepted good engineering practices
RCA	root cause analysis incident investigation
RFA	Regulatory Flexibility Act
RIA	Regulatory Impact Analysis
RMP	Risk Management Program or risk management plan
SARA	Superfund Amendments and Reauthorization Act
SCCAP	Safer Communities by Chemical Accident Prevention
SDS	Safety Data Sheet
SERC	State Emergency Response Commission
STAA	safer technology and alternatives analysis
TCPA	Toxic Catastrophe Prevention Act
TMA	trimethylamine

TQ	threshold quantity
UMRA	Unfunded Mandates Reform Act

The contents of this preamble are:

I. Executive Summary

A. Purpose of the Regulatory Action

The purpose of this action is to make changes to the Risk Management Program (RMP) rule in order to improve safety at facilities that use and distribute hazardous chemicals. Because major and other serious and concerning RMP accidents continue to occur, this final rule aims to better identify and further regulate risky facilities to prevent accidental releases before they can occur. As explained in further detail in following sections of this preamble, EPA maintains that by taking a rule-based, prevention-focused approach in this action rather than the so-called "compliance-driven," mostly post-incident, approach in the 2019 reconsideration rule, this rule will further protect human health and the environment from chemical hazards through process safety advancement without undue burden.

EPA proposed changes to its RMP regulations (40 Code of Federal Regulations (CFR) part 68) on August 31, 2022, (87 *Federal Register* (FR) 53556) after publishing a "Notice of virtual public listening sessions; request for public comment" (86 FR 28828) that solicited comments and information from the public regarding potential changes to the RMP regulations.

EPA also hosted a series of virtual public hearings on September 26-28, 2022, to provide interested parties the opportunity to present data, views, or arguments concerning the proposed action.

B. Summary of the Major Provisions of the Regulatory Action

This action amends EPA's RMP regulations at 40 CFR part 68. These regulations apply to stationary sources (also referred to as "facilities") that hold specific "regulated substances" in excess of threshold quantities. These facilities are required to assess their potential release impacts, undertake steps to prevent releases, plan for emergency response to releases, and summarize this information in a risk management plan (RMP) submitted to EPA. The release prevention steps vary depending on the type of process, but progressively gain granularity and rigor over three program levels (*i.e.,* Program 1, Program 2, and Program 3).

The major provisions of this rule include several changes to the accident prevention program requirements, as well as enhancements to the emergency response requirements, and improvements to the public availability of chemical hazard information. Each of these provisions is introduced in the following paragraphs of this section and described in greater detail in sections V through VIII of this preamble.

Additionally, certain revised provisions apply to a subset of the processes based on program levels described in 40 CFR part 68 (or in one case, to a subset of processes within a program level). A full description of these program levels is provided in section III.A. of this preamble. Additional provisions are targeted at subgroups of processes that pose an elevated likelihood of impacting nearby communities. Factors elevating the likelihood of impacting nearby communities include source-specific accident history, industry accident history, and co-

location with multiple facilities. Furthermore, some sectors are targeted for additional provisions due to recent accidents and widely known safer alternative technologies.

C. Costs and Benefits

Approximately 11,740 facilities have filed current RMPs with EPA and are potentially affected by the rule. These facilities include petroleum refineries and large chemical manufacturers; water and wastewater treatment systems; chemical and petroleum wholesalers and terminals; food manufacturers, packing plants, and other cold storage facilities with ammonia refrigeration systems; agricultural chemical distributors; midstream gas plants; and a limited number of other sources, including Federal installations that use RMP-regulated substances.

In total, EPA estimates annualized final rule costs of $256.9 million at a 3% discount rate and $296.9 million at a 7% discount rate over a 10-year period. The largest annualized cost of the final rule is the Safer Technologies and Alternatives Analysis (STAA) implementation cost ($168.7 million at a 3% discount rate and $204.9 million at a 7% discount rate), followed by the practicability study ($27.0 million at a 3% discount rate and $28.6 million at a 7% discount rate), the STAA initial evaluation ($18.5 million at a 3% discount rate and $19.7 million at a 7% discount rate), information availability ($12.8 million at both 3% and 7% discount rates), employee participation plans ($11.5 million at both 3% and 7% discount rates), third-party audits ($7.5 million at both 3% and 7% discount rates), rule familiarization ($5.8 million at a 3% discount rate and $6.8 million at a 7% discount rate), and community notification systems ($4.0 million at both 3% and 7% discount rates). The remaining provisions impose annualized costs under $1 million, including root cause analysis ($0.7 million at both 3% and 7% discount rates), emergency backup power for perimeter monitors ($0.3 million at both 3% and 7% discount

rates), and RMP justifications for natural hazards, facility siting, recognized and generally accepted good engineering practices (RAGAGEP), and no backup power, each have annualized costs below $0.1 million (at both 3% and 7% discount rates).

The Agency has determined that among the 2,636 potentially regulated private sector small entities impacted, 2,393, or 90.8 percent, may experience a cost of revenue impact of less than one percent, with an average small entity cost of $72,525; 167, or 6.3 percent, may experience an impact of between 1 and 3 percent of revenues with an average small entity cost of $629,271; and 75, or 2.8 percent, may experience an impact of greater than 3 percent with an average small entity cost of $1,083,823. The industry sectors of Farm Supplies Merchant Wholesalers and Farm Product Warehousing and Storage had the most entities potentially affected, with 146 and 96 entities, respectively. Within the Farm Supplies Merchant Wholesalers sector, the Agency determined that only 8 of the 146 small entities (6 percent of small entities) will experience impacts of between 1 and 3 percent of revenues and only 2 small entities (1 percent of small entities) will experience impacts of more than 3 percent of revenue. Within the Farm Product Warehousing and Storage sector, the Agency determined that only 5 of the 96 small entities (5 percent of small entities) will experience impacts of between 1 and 3 percent of revenues and no small entities will experience impacts of more than 3 percent of revenue.

Among the 630 small government entities potentially affected, the minimum cost any entity will incur is $2,000; 365, or 58 percent, would incur costs ranging from $2,000 to $3,000; 248, or 39 percent, will incur costs ranging from $3,000 to $10,000; and 17, or 3 percent, will incur costs greater than $10,000. EPA estimated that for the rule to have a larger than 1 percent impact on the government entity with the largest cost impact, the entity would need to have revenue of less than $120 per resident. For the rule to have a larger than 1 percent impact on the

smallest government entity identified in the data, the entity would need to have revenue of less than $650 per resident. Details of these analyses are presented in Chapter 8 of the RIA, which is available in the docket.

Major and other serious and concerning RMP accidents have continued to occur. EPA anticipates that promulgation and implementation of this final rule will reduce the risk of such accidents and the severity of the impacts when they occur. RMP accident data show past accidents have generated highly variable impacts, so the impacts of future accidents are difficult to predict. Nevertheless, it is clear from RMP accident data[1] and other relevant data from RMP regulated industry sectors[2], that chemical accidents can impose substantial costs on firms, employees, emergency responders, the community, and the broader economy.

Specifically, the EPA expects the final rule provisions to result in a reduced frequency and magnitude of damages from releases, including damages that are quantified for the baseline period such as fatalities, injuries, property damage, hospitalizations, medical treatment, sheltering in place, and evacuations. EPA also expects the final rule provisions to reduce baseline damages that are not quantified. These damages include potential health risks from toxic chemical exposure, lost productivity at affected facilities, emergency response costs, transaction costs from potential subsequent legal battles, property value losses in nearby neighborhoods, environmental damage and costs of evacuation and sheltering-in-place events, and others. They have not been quantified because there is either limited or no information in the RMP data that could allow for precise quantification. However, in some cases, these damages could be even

[1] EPA estimated monetized damages from RMP facility accidents of $540.23 million per year.

[2] Marsh JLT Specialty, "100 Largest Losses in the Hydrocarbon Industry," 27th Edition, March 2022. Accessed from https://www.marsh.com/uk/industries/energy-and-power/insights/100-largest-losses.html. Marsh provides estimates of large property damage losses in the hydrocarbon industry from 1974 to 2021 in current and 2021 dollars and in a few cases, business loss costs.

more detrimental to the facility and community than those damages that can be quantified. For example, regarding lost productivity, costs are highly variable based on the type of release, the extent of the damage, the location of the facility, and product being produced. Yet, Marsh Specialty, a risk management and energy consultancy, has collected data on 10,000 accidents in the petrochemical sector over 40 years and published 27 editions of its "100 Largest Losses" reports.[3] Their data suggest that lost productivity is typically two or three times the cost of property damage.[4] Another example of unquantified impacts can be examined with property value impacts. A recent hedonic property value analysis has examined the impact of RMP facility accidents on residential property values (Guignet et al. 2023a, b).[5] The analysis found that accidents with only onsite impacts reduced nearby property values between zero and two percent. However, accidents with impacts that occurred offsite, including fatalities, hospitalizations, people in need of medical treatment, evacuations, sheltering in place events, and/or property and environmental damage, reduced home values by two to three percent. The lower values persisted for about 10 to 12 years on average. The paper estimates an average loss of $5,350 per home in 2021-year values. Aggregating across the communities near the 661 facilities that experienced an offsite impact accident in their data, they calculate a total $39.5 billion loss. These studies strongly suggest that preventing or mitigating an accident at a

[3] Marsh JLT Specialty, "100 Largest Losses in the Hydrocarbon Industry," 27th Edition, March 2022. Accessed from *https://www.marsh.com/uk/industries/energy-and-power/insights/100-largest-losses.html*. Marsh provides estimates of large property damage losses in the hydrocarbon industry from 1974 to 2021 in current and 2021 dollars and in a few cases, business loss costs.

[4] Marsh JLT Specialty, "100 Largest Losses 1974-2015: Large property damage losses in the hydrocarbon industry," 24th Edition, March 2016. Accessed from *https://www.marsh.com/uk/industries/energy-and-power/insights/100-largest-losses.html*. Marsh provides estimates of large property damage losses in the hydrocarbon industry and in a few cases, business loss costs.

[5] Guignet, Dennis, Robin R. Jenkins, Christoph Nolte, and James Belke. 2023a. The External Costs of Industrial Chemical Accidents: A Nationwide Property Value Study. *Journal of Housing Economics*. 62 (2023) 101954.

chemical facility may prevent or mitigate lost productivity at RMP facilities and property value losses in nearby neighborhoods.

Further, in enacting section 112(r), Congress was focused on catastrophic accidents such as the 1984 Union Carbide industrial disaster in Bhopal, India[6], which are extremely rare, but very high consequence events. While large chemical facility accidents that have occurred in the U.S. and Europe have not approached this level of damage, it is possible that could happen. For example, one of the most consequential chemical accidents in the U.S.[7] was the 1989 explosion at the Phillips facility in Pasadena, TX, that killed 23 workers ($239 million in 2022 dollars), injured at least 150 more ($7.5 million), and caused $1.8 billion in property damage.[8]

The five-year baseline period accident costs included in EPA's analysis is $540 million per year. This cost was estimated using impacts from accidents during 2016 through 2020 (the last year with complete data) reported to the RMP plan reporting database by facility owners and operators. EPA used this dataset due to a lack of alternative data describing accident impacts more comprehensively. This estimate does not include a major catastrophe on the scale of Union Carbide-Bhopal, or even Phillips-Pasadena. If the final rule provisions were to prevent or substantially mitigate even one accident of this magnitude, the benefits generated, quantified and unquantified, will be dramatic. Further, some accidents that occurred at RMP facilities during the

[6] Union Carbide release of approximately 40 tons of methyl isocyanate into the air killed over 3,700 people. Most of the deaths and injuries occurred in a residential area near the plant.; Lees, Frank P. Loss Prevention in the Process Industries, Volume 3, 2nd ed. Appendix 5, Bhopal (Oxford: Butterworth-Heinemann, 1996).

[7] As compared to consequences resulting from RMP accidents 2004-2020 listed in Appendix A of the Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs Under the Clean Air Act, section 112(r)(7); Safer Communities by Chemical Accident Prevention (April 19, 2022).

[8] EPA estimated the values of injuries and deaths that occurred in Pasadena using the same values applied to injuries and deaths at RMP facility-reported accidents. See Exhibit 3-15 in the accompanying RIA for specific values and section 3.2.5.1 "Fatalities and Injuries" in the RIA for detailed explanations of how those values were estimated. The $1.8 billion in property damage was estimated by Marsh JLT Specialty, "100 Largest Losses in the Hydrocarbon Industry," 27th ed., March 2022. *https://www.marsh.com/us/industries/energy-and-power/insights/100-largest-losses/100-largest-losses-report-download.html*.

five-year period were not reported to EPA because the facility either closed after the accident, decommissioned the process, or removed the regulated substance from the process involved in the accident before it was required to submit a report to the RMP Database.[9] Additionally, the many baseline accident impacts that are not reflected in the $540 million baseline accident cost estimate because EPA was unable to monetize them[10], yet are expected to be avoided as a benefit of the final provisions, include responder costs, transaction costs, property value reductions, unmonetized costs of evacuations and sheltering-in-place, the costs of potential health effects from exposure to toxic chemicals, and productivity losses, among others. The $540 million estimate also does not reflect the full set of baseline inefficiencies that may be mitigated due to the improved information offered by several of the final provisions such as the community notification requirements and the back-up power for monitors. As the range of monetized accident impacts suggests (from $100 to $700 million for 2016 to 2020[11]), the variation in monetized damages is substantial. Preventing a single high-cost accident annually would offset annual rule costs.

When considering this final rule's likely benefits of avoiding some portion of the monetized accident impacts, as well as the additional nonmonetized benefits, EPA believes the costs of the rule are reasonable in comparison to its expected benefits. When assessing the

[9] For example, the Philadelphia Energy Solutions Refining and Marketing LLC facility in Philadelphia, PA, had a fire and explosions in the PES Girard Point refinery HF alkylation unit on June 21, 2019, which resulted in the release of HF. This facility deregistered the affected process before the deadline for their subsequent RMP report. For a description of damages from this accident see section 3.2.1 of the RIA and the CSB Report, Fire and Explosions at Philadelphia Energy Solutions Refinery Hydrofluoric Acid Alkylation Unit, Factual Update, October 16, 2019, *https://www.phila.gov/media/20191204161826/US-CSB-PES-Factual-Update.pdf* .

[10] For descriptions on why EPA was unable to monetize each of these impacts, see Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention: Final Rule. This document is available in the docket for this rulemaking (EPA-HQ-OLEM-2022-0174). Chapter 6, Section 6.2.

[11] Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention: Final Rule. This document is available in the docket for this rulemaking (EPA-HQ-OLEM-2022-0174).

reasonableness of the benefits and burdens of various regulatory options, EPA places weight on both preventing more common accidental releases captured in the accident history portion of the RMP database while also placing weight on less quantifiable potential catastrophic events. The Agency's judgment as to what regulations are "reasonable" is informed by both quantifiable and unquantifiable burdens and benefits as discussed more fully in section III.C of this preamble.

II. General Information

A. Does This Action Apply to Me?

This rule applies to those facilities (referred to as "stationary sources" under the Clean Air Act, or CAA (42 U.S.C. 7412(r))) that are subject to the chemical accident prevention requirements at 40 CFR part 68. This includes stationary sources holding more than a threshold quantity (TQ) of a regulated substance in a process. Nothing in this rule impacts the scope and applicability of the General Duty Clause (GDC) in CAA section 112(r)(1), 42 U.S.C. 7412(r)(1). See 40 CFR 68.1. Table 1 provides industrial sectors and the associated North American Industry Classification System (NAICS) codes for entities potentially affected by this action. The Agency's goal is to provide a guide on entities that might be affected by this action. However, this action may affect other entities not listed in this table. If you have questions about the applicability of this action to a particular entity, consult the person(s) listed in the FOR FURTHER INFORMATION CONTACT section of this preamble.

Table 1—Entities Potentially Affected by the Final Rule

Sector	NAICS Codes	Number of Facilities	Chemical Uses
Administration of environmental quality programs (*i.e.,* governments, government-owned water)	92, 2213 (government-owned)	1,449	Use chlorine and other chemicals for water treatment

Agricultural chemical distributors/wholesalers	11, 424 (except 4246, 4247)	3,315	Store ammonia for sale; some in NAICS 111 and 115 use ammonia as a refrigerant
Chemical manufacturing	325	1,502	Manufacture, process, store
Chemical wholesalers	4246	317	Store for sale
Food and beverage manufacturing	311, 312	1,571	Use (mostly ammonia) as a refrigerant
Oil and gas extraction	211	719	Intermediate processing (mostly regulated flammable substances and flammable mixtures)
Other	21 (except 211), 23, 44, 45, 48, 491, 54, 55, 56, 61, 62, 71, 72, 81, 99	246	Use chemicals for wastewater treatment, refrigeration, store chemicals for sale
Other manufacturing	313, 314, 315, 326, 327, 33	375	Use various chemicals in manufacturing process, waste treatment
Other wholesale	421, 422, 423	39	Use (mostly ammonia) as a refrigerant
Paper manufacturing	321, 322	55	Use various chemicals in pulp and paper manufacturing
Petroleum and coal products manufacturing	324	156	Manufacture, process, store (mostly regulated flammable substances and flammable mixtures)
Petroleum wholesalers	4247	367	Store for sale (mostly regulated flammable substances and flammable mixtures)
Utilities/water/ wastewater	221 (non-government-owned water)	519	Use chlorine (mostly for water treatment) and other chemicals
Warehousing and storage	493	1,110	Use (mostly ammonia) as a refrigerant
Total		11,740	

B. What Action is the Agency Taking?

EPA is amending its RMP regulations as a result of Agency review. The revisions include several changes and amplifications to the accident prevention program requirements, enhancements to the emergency preparedness requirements, improvements to the public

availability of chemical hazard information, and several other changes to certain regulatory definitions or points of clarification. Because major and other serious and concerning RMP accidents continue to occur, EPA believes that this final rule will help further protect human health and the environment from chemical hazards through advancement of process safety based on lessons learned. These amendments seek to improve chemical process safety; assist in planning, preparedness, and response to RMP-reportable accidents; and improve public awareness of chemical hazards at regulated sources.

C. What is the Agency's Authority for Taking This Action?

The statutory authority for this action is provided by section 112(r) of the CAA as amended (42 U.S.C. 7412(r)). Each modification of the RMP rule that EPA finalizes in this document is based on EPA's rulemaking authority under CAA section 112(r)(7) (42 U.S.C. 7412(r)(7)). When promulgating rules under CAA section 112(r)(7)(A) and (B), EPA must follow the procedures for rulemaking set out in CAA section 307(d) (see CAA sections 112(r)(7)(E) and 307(d)(1)(C)). Among other things, CAA section 307(d) sets out requirements for the content of proposed and final rules, the docket for each rulemaking, opportunities for oral testimony on proposed rulemakings, the length of time for comments, and judicial review.

D. What are the Incremental Costs and Benefits of This Action?

1. Summary of Estimated Costs

Table 2 presents a summary of the annualized final rule costs estimated in the Regulatory Impact Analysis (RIA).[12] In total, EPA estimates annualized costs of $256.9 million at a 3% discount rate and $296.9 million at a 7% discount rate.

[12] Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention: Final Rule. This document is available in the docket for this rulemaking (EPA-HQ-OLEM-2022-0174).

Table 2—Summary of Estimated Annualized Costs [Millions, 2022 dollars] over a 10-year Period

Cost Elements	Total Undiscounted	Total Discounted (3%)	Total Discounted (7%)	Annualized (3%)	Annualized (7%)
Third-party Audits	$75.2	$64.2	$52.8	$7.5	$7.5
Root Cause Analysis	$7.3	$6.2	$5.1	$0.7	$0.7
Safer Technology and Alternatives Analysis (STAA)					
Initial Evaluation	$176.4	$158.2	$138.3	$18.5	$19.7
Practicability Study	$256.9	$230.2	$201.0	$27.0	$28.6
Implementation	$1,700.4	$1,438.9	$1,172.6	$168.7	$204.9
Backup Power for Perimeter Monitors	$3.3	$2.8	$2.3	$0.3	$0.3
Employee Participation Plan	$114.7	$97.9	$80.6	$11.5	$11.5
RMP Justifications					
No Backup Power	$.2	$0.1	$0.1	$0.0**	$0.0**
Natural Hazards	$.4	$0.4	$0.3	$0.0**	$0.0**
Facility Siting	$.4	$0.4	$0.3	$0.0**	$0.0**
RAGAGEP	$.3	$0.2	$0.2	$0.0**	$0.0**
Community Notification System	$39.7	$33.9	$27.9	$4.0	$4.0
Information Availability	$127.6	$108.8	$89.6	$12.8	$12.8
Rule Familiarization	$50.9	$49.5	$47.6	$5.8	$6.8
Total Cost*	**$2,554.0**	**$2,191.7**	**$1,818.9**	**$256.9**	**$296.9**

*Totals may not sum due to rounding.
** Costs are zero due to rounding, Unrounded costs are $42,307 for Natural Hazards and Facility Siting, $27,582 for RAGAGEP, and $15,798 for No Backup Power.

The largest annualized cost of the final rule is the STAA implementation cost ($168.7 million at a 3% discount rate and $204.9 million at a 7% discount rate), followed by practicability study ($27.0 million at a 3% discount rate and $28.6 million at a 7% discount rate), STAA initial evaluation ($18.5 million at a 3% discount rate and $19.7 million at a 7% discount rate), information availability ($12.8 million at both 3% and 7% discount rates), employee participation plans ($11.5 million at both 3% and 7% discount rates), third-party audits ($7.5 million at both 3% and 7% discount rates), rule familiarization ($5.8 million at a 3% discount

rate and $6.8 million at a 7% discount rate), and community notification systems ($4.0 million at both 3% and 7% discount rates). The remaining provisions impose annualized costs under $1 million, including root cause analysis ($0.7 million at both 3% and 7% discount rates), emergency backup power for perimeter monitors ($0.3 million at both 3% and 7% discount rates), and RMP justifications for natural hazards, facility siting, RAGAGEP, and no backup power, that each have annualized costs below $0.1 million (at both 3% and 7% discount rates).

The Agency has determined that among the 2,636 potentially regulated private sector small entities impacted by this rule, 2,393, or 90.8 percent, may experience an impact of less than 1 percent of revenue with an average small entity cost of $72,525; 167, or 6.3 percent, may experience an impact of between 1 and 3 percent of revenues with an average small entity cost of $629,271; and 75, or 2.8 percent, may experience an impact of greater than 3 percent with an average small entity cost of $1,083,823. Among the 630 small government entities potentially affected, none would incur costs of less than $2,000; 365, or 58 percent, would incur costs ranging from $2,000 to $3,000; 248, or 39 percent, would incur costs ranging from $3,000 to $10,000; and 17, or 3 percent, would incur costs greater than $10,000. EPA estimated that for the rule to have a larger than 1 percent impact on the government entity with the largest cost impact, it would need to have revenue of less than $120 per resident. For the rule to have a larger than 1 percent impact on the smallest government entity identified in the data, it would need to have revenue of less than $650 per resident.[13]

2. Baseline Damages

[13] The Regulatory Flexibility Act defines small governments as governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000. Most governmental RMP facilities are water and wastewater treatment systems and listed a city or county as the owner entity.

Accidents and chemical releases from RMP facilities occur every year. They cause fires and explosions, damage to property, acute and chronic exposures of workers and nearby residents to hazardous materials, and serious injuries and fatalities. EPA is able to present data on the total damages that currently occur at RMP facilities each year. In this final rule, EPA presents the data based on a 5-year baseline period (2016-2020), summarizes RMP accident impacts and, when possible, monetizes them. Due to a lack of alternative data describing RMP accident impacts more comprehensively, EPA chose this five-year dataset to reflect the most recent trends regarding RMP accidents[14]. It is important to note, however, that many accident costs are not required to be reported under the RMP accident reporting provisions (40 CFR 68.42(b)) and thus are not reflected in the data. These include responder costs, transaction costs, property value reductions, unmonetized costs of evacuations and sheltering-in-place, the costs of potential health effects, and productivity losses, among others.[15] In addition, some accidents that occurred at RMP facilities during the five-year period were not reported to EPA because the facility either closed after the accident, decommissioned the process, or removed the regulated substance from the process involved in the accident before it was required to submit a report to the RMP Database. For example, the Philadelphia Energy Solutions (PES) Refining and Marketing LLC facility in Philadelphia, PA, had a fire and explosions in the PES Girard Point refinery hydrofluoric acid (HF) alkylation unit on June 21, 2019, which resulted in the release of

[14] EPA used the August 1, 2021, version of the RMP database to complete its analysis because under 40 CFR 68.195(a), facilities are required to report RMP accidents and specific associated information within six months to the RMP database. Therefore, the RMP database as of August 1, 2021, is expected to include RMP accidents and their specific associated information as of December 31, 2020. However, because accident data are reported to the RMP database by facility owners and operators, EPA acknowledges the likelihood of late-reported accidents affecting these last few years of data because some facilities may have not reported their RMP accidents as they are required to do. See sections 3.2 and 3.3 of the RIA for more on this and other limitations on the number and costs of baseline accidents.

[15] Further discussed in detail in Chapter 6 of the RIA.

HF.[16] This facility deregistered the affected process before the deadline for their subsequent RMP report. Due to the omission of such accidents and the omission of the cost categories listed in the beginning of this paragraph, the monetized costs of RMP accidents to society underestimate the number and magnitude of RMP chemical accidents. Nonetheless, EPA expects that some portion of future damages will be prevented through implementation of the final rule. Table 3 presents a summary of the quantified damages identified in the analysis.

Table 3—Summary of Quantified Damages [Millions, 2022 dollars]

	Unit Value	5-Year Total	Average/Year	Average/Accident
On site				
Fatalities	$10.4	$187.9	$37.57	$0.38
Injuries	$0.05	$28.75	$5.75	$0.06
Property Damage		$2,273	$454.58	$4.66
Onsite Total		**$2,489.49**	**$497.90**	**$5.10**
Off site				
Fatalities	$10.4	$0.00	$0.00	$0.00
Hospitalizations	$0.045	$1.40	$0.28	$0.003
Medical Treatment	$0.001	$0.13	$0.03	$0.0003
Evacuations*	$0.00	$18.99	$3.80	$0.039
Sheltering in Place*	$0.00	$12.58	$2.52	$0.026
Property Damage		$178.55	$35.71	$0.37
Offsite Total		**$211.66**	**$42.33**	**$0.43**
Total		**$2,701.14**	**$540.23**	**$5.54**

* The unit value is $293 for evacuations and $147 for sheltering in place, so when expressed in rounded millions the value represented in the table is zero.

In total, EPA estimated monetized damages from RMP facility accidents of $540.23 million per year, which are divided into onsite and offsite categories where possible. EPA estimated total, average annual onsite damages from chemical releases at RMP facilities of

[16] For a description of damages from this case see section 3.2.1 of the RIA and the CSB Report, Fire and Explosions at Philadelphia Energy Solutions Refinery Hydrofluoric Acid Alkylation Unit, Factual Update, October 16, 2019, *https://www.phila.gov/media/20191204161826/US-CSB-PES-Factual-Update.pdf*.

$497.90 million. The largest monetized category was onsite property damage, valued at $454.58 million. The next largest impacts were onsite fatalities ($37.57 million) and injuries ($5.75 million).

EPA estimated total, average annual offsite damages of $42.33 million. Property damage again was the highest value category, estimated at approximately $35.71 million. In decreasing order, the next largest average annual offsite impact was from evacuations ($3.80 million), then sheltering in place ($2.52 million), hospitalizations ($0.28 million), and medical treatment ($0.03 million).

Regarding small entities, there were 86 accidents at facilities owned by small entities in the 2016-2020 period, or about 18 percent of all accidents.[17] These accidents cost $141.14 million in total over the 5-years, with an average cost of $28.23 million per year, and average per accident cost of $0.29 million. These accidents costs represent about 5% of the costs of all accidents.

EPA also evaluated the range of significant baseline damages in Table 3 that could not be quantified. These damages include major catastrophic releases, potential health risks from toxic chemical exposure, lost productivity at affected facilities, emergency response costs, transaction costs from potential subsequent legal battles, property value losses in nearby neighborhoods, environmental damage, unquantified costs of evacuation and sheltering-in-place events, and others. They have not been quantified because there is either limited or no information in the RMP data. However, in some cases, these damages could be even more detrimental to the facility and community than those damages that can be quantified. For example, regarding lost

[17] There are accidents at 97 facilities that were not matched in the small entity analysis, so it is not possible to determine if they are owned by small or large entities with the data EPA has.

productivity, costs are highly variable based on the type of release, the extent of the damage, the location of the facility, and product being produced. Yet, Marsh Specialty, a risk management and energy consultancy, has collected data on 10,000 accidents in the petrochemical sector over 40 years and published 27 editions of its "100 Largest Losses" reports.[18] The data suggest that lost productivity may range from zero to four to five is typically two to three times the cost of property damage.[19] Another example of unquantified impacts can be examined with property value impacts. A recent hedonic property value analysis has examined the impact of RMP facility accidents on residential property values (Guignet et al. 2023a, b).[20] The analysis found that accidents with only onsite impacts reduced nearby property values between zero and two percent. However, accidents with impacts that occurred offsite, including fatalities, hospitalizations, people in need of medical treatment, evacuations, sheltering in place events, and/or property and environmental damage, reduced home values by two to three percent. The lower values persisted for about 10 to 12 years on average. The paper estimates an average loss of $5,350 per home in 2021-year values. Aggregating across the communities near the 661 facilities that experienced an offsite impact accident in their data, they calculate a total $39.5 billion loss.

Further, the five-year baseline period included in this analysis ($540 million per year) does not include a major catastrophe. In enacting section 112(r), Congress was focused on

[18] Marsh JLT Specialty, "100 Largest Losses in the Hydrocarbon Industry," 27th Edition, March 2022. Accessed from *https://www.marsh.com/uk/industries/energy-and-power/insights/100-largest-losses.html*. Marsh provides estimates of large property damage losses in the hydrocarbon industry from 1974 to 2021 in current and 2021 dollars and in a few cases, business loss costs.

[19] Marsh JLT Specialty, "100 Largest Losses 1974-2015: Large property damage losses in the hydrocarbon industry," 24th Edition, March 2016. Accessed from *https://www.marsh.com/uk/industries/energy-and-power/insights/100-largest-losses.html*. Marsh provides estimates of large property damage losses in the hydrocarbon industry and in a few cases, business loss costs.

[20] Guignet, Dennis, Robin R. Jenkins, Christoph Nolte, and James Belke. 2023a. The External Costs of Industrial Chemical Accidents: A Nationwide Property Value Study. *Journal of Housing Economics*. 62 (2023) 101954.

catastrophic accidents such as Union Carbide-Bhopal, which are extremely rare, but very high consequence events. The large chemical facility accidents that have occurred in the U.S. and Europe have not approached this level of damage, although it is possible that could happen. As mentioned previously, one of the most consequential accidents in the U.S.[21], the explosion at the Phillips facility in Pasadena, TX, in 1989, killed 23 workers ($239 million in 2022 dollars), injured at least 150 more ($7.5 million), and caused $1.8 billion in property damage. These baseline damages are discussed in greater detail in Chapter 6 of the RIA.

3. Summary of Estimated Benefits

RMP accident data show past accidents have generated highly variable impacts, so the impacts of future accidents are difficult to predict. Nevertheless, it is clear from RMP accident data[22] and other relevant data from RMP regulated industry sectors,[23] that chemical accidents can impose substantial costs on firms, employees, emergency responders, the community, and the broader economy. Notwithstanding EPA's current rules, RMP accidents have continued to occur. EPA anticipates that promulgation and implementation of this final rule will improve the health and safety protection provided by the RMP rule and result in a reduced frequency and magnitude of damages from releases, including damages that are quantified in Table 3 such as fatalities, injuries, property damage, hospitalizations, medical treatment, sheltering in place, and so on. EPA also expects that the final rule provisions will reduce baseline damages that are not

[21] As compared to consequences resulting from RMP accidents 2004-2020 listed in Appendix A of the Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs Under the Clean Air Act, section 112(r)(7); Safer Communities by Chemical Accident Prevention (April 19, 2022).

[22] EPA estimated monetized damages from RMP facility accidents of $540.23 million per year.

[23] Marsh JLT Specialty, "100 Largest Losses in the Hydrocarbon Industry," 27th Edition, March 2022. Accessed from https://www.marsh.com/uk/industries/energy-and-power/insights/100-largest-losses.html. Marsh provides estimates of large property damage losses in the hydrocarbon industry from 1974 to 2021 in current and 2021 dollars and in a few cases, business loss costs.

quantified in Table 3 such as lost productivity, responder costs, property value reductions, damages from catastrophes, transaction costs, environmental impacts, and so on. Although EPA was unable to quantify the reductions in damages that may occur as a result of the final rule provisions, EPA expects that a portion of future damages will be prevented by the final rule.[24] Table 4 summarizes five broad social benefit categories related to accident prevention and mitigation, including prevention of RMP accidents, mitigation of RMP accidents, prevention and mitigation of non-RMP accidents at RMP facilities, and prevention of major catastrophes. The table explains each and identifies thirteen associated specific benefit categories, ranging from avoided fatalities to avoided emergency response costs.

Table 4—Summary of Social Benefits of Final Rule Provisions

Broad Benefit Category	Explanation	Specific Benefit Categories
Accident Prevention	Prevention of future RMP facility accidents	• Reduced Fatalities • Reduced Injuries • Reduced Property Damage • Fewer People Sheltered-in-Place • Fewer Evacuations • Avoided Health Risks from Exposure to Toxics • Avoided Lost Productivity • Avoided Emergency Response Costs • Avoided Transaction Costs • Avoided Property Value Impacts* • Avoided Environmental Impacts
Accident Mitigation	Mitigation of future RMP facility accidents	
Non-RMP Accident Prevention and Mitigation	Prevention and mitigation of future non-RMP accidents at RMP facilities	
Avoided Catastrophes	Prevention of rare but extremely high consequence events	
Information Availability	Provision of information to the public and emergency responders	• Improved Efficiency of Property Markets • Improved Resource Allocation

[24] For the discussion of how final rule provisions are intended to lower the likelihood of future accidents of the same or similar type, see section 6.1.1 of the RIA.

*These impacts partially overlap with several other categories.

For details on how quantified benefits were estimated or discussion on unquantified benefits, including the difficulty in their quantification see Chapter 6 of the RIA.

When considering this final rule's likely benefits of this of avoiding some portion of the monetized accident impacts, as well as the additional nonmonetized benefits, EPA believes the costs of the rule are reasonable in comparison to its expected benefits. When assessing the reasonableness of the benefits and burdens of various regulatory options, EPA places weight on both preventing more common accidental releases captured in the accident history portion of the RMP database while also placing weight on less quantifiable potential catastrophic events. The Agency's judgment as to what regulations are "reasonable" is informed by both quantifiable and unquantifiable burdens and benefits.

III. Background

A. Overview of EPA's Risk Management Program

EPA originally issued the RMP regulations in two stages. First, the Agency published the list of regulated substances and TQs in 1994: "List of Regulated Substances and Thresholds for Accidental Release Prevention; Requirements for Petitions Under Section 112(r) of the Clean Air Act as Amended" (59 FR 4478, January 31, 1994), hereinafter referred to as the "list rule."[25] The Agency then published the RMP regulations, containing risk management requirements for covered sources, in 1996: "Accidental Release Prevention Requirements: Risk Management Programs Under Clean Air Act Section 112(r)(7)" (61 FR 31668, June 20, 1996), hereinafter

[25] Documents and information related to development of the list rule can be found in the EPA docket for the rulemaking, docket number A-91-74.

referred to as the "1996 RMP rule."[26] [27] Subsequent modifications to the list rule and the 1996 RMP rule were made as discussed in the 2017 amendments rule ("Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act"; 82 FR 4594, January 13, 2017, at 4600, hereinafter referred to as the "2017 amendments rule"). In addition to requiring implementation of management program elements, the RMP rule requires any covered source to submit (to EPA) a document summarizing the source's risk management program—called a risk management plan (or RMP).

Prior to development of EPA's 1996 RMP rule, the Occupational Safety and Health Administration (OSHA) published its Process Safety Management (PSM) standard in 1992 (57 FR 6356, February 24, 1992), as required by section 304 of the 1990 Clean Air Act Amendments (CAAA), using its authority under 29 U.S.C. 653. The OSHA PSM standard can be found in 29 CFR 1910.119. Both the OSHA PSM standard and EPA's RMP rule aim to prevent or minimize the consequences of accidental chemical releases through implementation of management program elements that integrate technologies, procedures, and management practices.

EPA's RMP requirements include conducting a worst-case scenario analysis and a review of accident history, coordinating emergency response procedures with local response organizations, conducting a hazard assessment, documenting a management system, implementing a prevention program and an emergency response program, and submitting a risk management plan that addresses all aspects of the RMP for all covered processes and chemicals.

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[26] Documents and information related to development of the 1996 RMP rule can be found in EPA docket number A-91-73.

[27] 40 CFR part 68 applies to owners and operators of stationary sources that have more than a TQ of a regulated substance within a process. The regulations do not apply to chemical hazards other than listed substances held above a TQ within a regulated process.

A process at a source is covered under one of three different prevention programs (Program 1, Program 2, or Program 3) based directly or indirectly on the threat posed to the community and the environment. Program 1 has minimal requirements and is for processes that have not had an accidental release with offsite consequences in the last 5 years before submission of the source's risk management plan, and that have no public receptors within the worst-case release scenario vulnerable zone for the process. Program 3 applies to processes not eligible for Program 1, has the most requirements, and applies to processes covered by the OSHA PSM standard or classified in specified industrial sectors. Program 2 has fewer requirements than Program 3 and applies to any process not covered under Programs 1 or 3. Programs 2 and 3 both require a hazard assessment, a prevention program, and an emergency response program, although Program 2 requirements are less extensive and more streamlined. For example, the Program 2 prevention program was intended to cover, in many cases, simpler processes at smaller businesses and does not require the following process safety elements: management of change, pre-startup review, contractors, employee participation, and hot work permits. The Program 3 prevention program is similar to the OSHA PSM standard and designed to cover those processes in the chemical industry. EPA notes that nothing in this final rule changes the applicability determinations or designations of whether a process at a stationary source is covered under one of the three different prevention programs.

B. Events Leading to This Action

On January 13, 2017, EPA published amendments to the RMP rule (82 FR 4594). The 2017 amendments rule was prompted by EO 13650, "Improving Chemical Facility Safety and

Security,"[28] which directed EPA (and several other Federal agencies) to, among other things, modernize policies, regulations, and standards to enhance safety and security in chemical facilities. The 2017 amendments rule contained various new provisions applicable to RMP-regulated facilities addressing prevention program elements (STAA, incident investigation root cause analysis, and third-party compliance audits); emergency response coordination with local responders (including emergency response exercises); and availability of information to the public. EPA received three petitions for reconsideration of the 2017 amendments rule under CAA section 307(d)(7)(B).[29] In December 2019, EPA finalized revisions to the RMP regulations to reconsider the rule changes made in January 2017 ("Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act," 84 FR 69834, December 19, 2019, hereinafter referred to as the "2019 reconsideration rule"). The 2019 reconsideration rule rescinded certain information disclosure provisions of the 2017 amendments rule, removed most new accident prevention requirements added by the 2017 amendments rule, and modified some other provisions of the 2017 amendments rule. The rule changes made by the 2019 reconsideration rule reflect the current RMP regulations to date. There are petitions for judicial review of both the 2017 amendments and the 2019 reconsideration rules. The 2019 reconsideration rule challenges are being held in abeyance until September 29, 2023, by which time the parties must submit motions to govern. The case against the 2017 amendments rule is in abeyance pending resolution of the 2019 reconsideration rule case.

[28] *https://obamawhitehouse.archives.gov/the-press-office/2013/08/01/executive-order-improving-chemical-facility-safety-and-security.*

[29] *https://www.epa.gov/petitions/petitions-office-land-and-emergency-management.*

On January 20, 2021, President Biden issued EO 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis."[30] EO 13990 directed Federal agencies to review existing regulations and take action to address priorities established by the Biden Administration, which include bolstering resilience to the impacts of climate change and prioritizing EJ. As a result, EPA was tasked to review the current RMP regulations.

While the Agency reviewed the RMP rule under EO 13990, the EO did not specifically direct EPA to publish a solicitation for comment or information from the public. Nevertheless, EPA held virtual public listening sessions on June 16 and July 8, 2021, and had an open docket for public comment (86 FR 28828; May 28, 2021). In the request for public comment, the Agency asked for information on the adequacy of revisions to the RMP regulations completed since 2017, incorporating consideration of climate change risks and impacts into the regulations and expanding the application of EJ. EPA received a total of 27,828 public comments in response to the request for comments. This included 27,720 received at regulations.gov,[31] 35 provided during the listening session on June 16, 2021,[32] and 73 provided during the listening session on July 8, 2021.[33] Most of the comments received in the docket were copies of form letters related to four different form letter campaigns. The remaining comments included 302 submissions containing unique content. Of the 302 unique submissions, a total of 163 were deemed to be substantive (*i.e.,* the commenters presented both a position and a reasoned

[30] *https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/.*

[31] EPA-HQ-OLEM-2021-0312.

[32] EPA-HQ-OLEM-2021-0312-0011.

[33] EPA-HQ-OLEM-2021-0312-0020.

argument in support of the position). Information collected through these comments informed the proposal.

EPA published the "RMP Safer Communities by Chemical Accident Prevention," (SCCAP) proposed rulemaking on August 31, 2022 (87 FR 53556), hereinafter referred to as the "2022 SCCAP proposed rule." The 2022 SCCAP proposed rule included several changes and amplifications to the accident prevention program requirements, enhancements to the emergency preparedness requirements, improvements to the public availability of chemical hazard information, and several other changes to certain regulatory definitions or points of clarification. EPA hosted virtual public hearings on September 26, 27, and 28, 2022 to provide interested parties the opportunity to present data, views or arguments concerning the proposed action.

EPA received a total of 494 discrete public comments deemed as substantive (i.e., the commenters presented both a position and a reasoned argument in support of the position) on the proposed rulemaking. Of the 494 comments, 370 were written submitted comments and 124 were from members of the public that provided verbal comments at the public hearings on September 26, 27, and 28, 2022. Of the 370, 142 were from 101 unique organizations, 6 were the result of various mass mail campaigns and contained numerous copies of letters or petition signatures (approximately 57,505 letters and signatures were contained in these several comments), and 31 were from individual citizens. Discussion of public comments can be found in topics included in this final rule and in the Response to Comments document,[34] available in the docket for this rulemaking.

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[34] 2023. EPA Response to Comments on the 2022 SCCAP Proposed Rule (August 31, 2022; 87 FR 53556). This document is available in the docket for this rulemaking.

The NPRM discussed how the various proposed provisions amendments to the RMP rule were not only integrated, reinforcing, and complementary but also how each was merited on its own and severable. 87 FR 53566 (August 31, 2022). For example, EPA noted that new substantive prevention requirements like STAA and third-party audits triggered by NAICS, location, and accident history were reinforced by provisions like local information access and enhanced employee participation. Nevertheless, in the body of the preamble for the SCCAP NPRM, the Agency explained how each of these provisions would help prevent accidents and improve release mitigation and emergency response on its own merits.

C. EPA's Authority to Revise the RMP Rule

The statutory authority for this action is provided by CAA section 112(r) (42 U.S.C. 7412(r)). Each of the portions of the RMP regulations we are amending in this action are based on EPA's rulemaking authority under CAA section 112(r)(7). Under CAA section 112(r)(7)(A), EPA may set rules addressing the prevention, detection, and correction of accidental releases of substances listed by EPA ("regulated substances" listed in the Tables 1 through 4 to 40 CFR 68.130). Such rules may include requirements related to monitoring, data collection, training, design, equipment, work practice, and operations. In promulgating its regulations, EPA may draw distinctions between types, classes, and kinds of facilities by taking into consideration various factors including size and location. A more detailed discussion of the underlying statutory authority for the current RMP regulations appears in the initial 1993 action that proposed the RMP regulations (58 FR 54190-3, October 20, 1993).

Under CAA 112(r)(7)(B)(i), Congress authorized EPA to develop "reasonable regulations and appropriate guidance" that provide for the prevention and detection of accidental releases and the response to such releases, "to the greatest extent practicable." Congress required an

initial rulemaking under this paragraph by November 15, 1993. Section 112(r)(7)(B) sets out a series of mandatory subjects to address, interagency consultation requirements, and discretionary provisions that allowed EPA to tailor requirements to make them reasonable and practicable. The prevention program provisions discussed in this action (hazard evaluations of natural hazards, power loss and stationary source siting, safer technologies and alternatives analysis, root cause analysis incident investigation, third party compliance auditing, and employee participation) derive from EPA's authority to promulgate reasonable regulations for the "prevention and detection of accidental releases" (CAA section 112(r)(7)(B)(i)). Similarly, the emergency coordination and exercises provisions in this rule derive from EPA's authority to promulgate reasonable regulations to address "response to such [accidental] releases by the owners or operators of the source of such releases" Id. Section 112(r)(7)(B)(i) calls for EPA's regulations to recognize differences in "size, operations, processes, class and categories of sources." For that reason, this action maintains distinctions in prevention program levels and in response actions authorized by this provision. Finally, the information availability provisions discussed in this action generally assist in the development of "procedures and measures for emergency response after an accidental release of a regulated substance in order to protect human health and the environment." Id. These information availability provisions include requirements to disclose information to the public within a 6-mile radius of sources, and are designed to ensure that emergency plans for impacts on the community are based on more relevant and accurate information than would otherwise be available and ensures that the public can become an informed participant in such emergency planning. Also, as noted in the 2022 SCCAP proposed rule, requiring that information be made available to the public strengthens the prevention

program by leveraging public oversight of facilities—especially prevention provisions that are triggered by source-specific accident history (87 FR 53566, August 31, 2022).

This rulemaking action finalizes substantive amendments to 40 CFR part 68 and is authorized by CAA sections 112(r)(7)(A) and (B), as explained in more detail in the proposed action (87 FR 53563-6), and as explained herein. In considering whether it is legally permissible for EPA to modify provisions of the RMP regulations while continuing to meet its obligations under CAA section 112(r), the Agency notes that it has made discretionary amendments to the 1996 RMP rule several times without dispute over its authority to issue discretionary amendments. (See 64 FR 640, January 6, 1999; 64 FR 28696, May 26, 1999; 69 FR 18819, April 9, 2004.) According to the decision in *Air Alliance Houston v. EPA*, 906 F.3d 1049 (D.C. Cir. 2018), "EPA retains the authority under Section 7412(r)(7) [CAA section 112(r)(7)] to substantively amend the programmatic requirements of the [2017 RMP amendments] . . . subject to arbitrary and capricious review" (906 F.3d at 1066). Therefore, EPA is authorized to modify the provisions of the current RMP regulations if it finds that it is reasonable to do so.[35]

The Supreme Court has also recognized that agencies have broad discretion to reconsider a regulation at any time so long as the changes in policy are "permissible under the statute, . . . there are good reasons for [them], and that the agency believes [them] to be better" than prior policies. (See *Federal Communications Commission v. Fox Television Stations, Inc.*, 556 U.S.

[35] See *Motor Vehicle Manufacturers. Association of the United States, Inc. v. State Farm Mutual Automobile Ins. Co.,* 463 U.S. 29 (1983). In addressing the standard of review to reconsider a regulation, the Supreme Court stated that the rescission or modification of safety standards "is subject to the same test" as the "agency's action in promulgating such standards [and] may be set aside if found to be 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law'" (463 U.S. at 41, quoting 5 U.S.C. 706). The same standard that applies to the promulgation of a rule applies to the modification or rescission of that rule.

502, 515 (2009); emphasis in quote original).[36] As explained in detail above and throughout this notice, the policy changes finalized in this action are permissible under the statute.

Additionally, there are good reasons for the policies adopted in this rule. Accidental releases remain a significant concern to communities and cost society more than $540 million yearly.[37] EPA monetized both onsite and offsite damages from RMP facility accidents from 2016-2020[38], when possible, to determine this amount. It is important to note, however, that many accident costs are not required to be reported under the RMP accident reporting provisions (40 CFR 68.42(b)) and thus are not reflected in the data. These include responder costs, transaction costs, property value reductions, unmonetized costs of evacuations and sheltering-in-place, the costs of potential health risks from exposure to toxic chemicals, and productivity losses, among others.[39] As mentioned previously, some accidents that occurred at RMP facilities during the five-year period were not reported to EPA because the facility either closed after the accident, decommissioned the process, or removed the regulated substance from the process involved in the accident before it was required to submit a report to the RMP Database. For

[36] The full quote from *Fox* states: "But [the Agency] need not demonstrate to a court's satisfaction that the reasons for the new policy are better than the reasons for the old one; it suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates" (*Federal Communications Commission v. Fox Television Stations, Inc.,* 556 U.S. at 515; emphasis original).

[37] A full description of costs and benefits for this final rule can be found in the Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention: Final Rule. This document is available in the docket for this rulemaking (EPA-HQ-OLEM-2022-0174).

[38] Due to a lack of alternative data describing RMP accident impacts more comprehensively, EPA chose this five-year dataset to reflect the most recent trends regarding RMP accidents. EPA used the August 1, 2021, version of the RMP database to complete its analysis because under 40 CFR 68.195(a), facilities are required to report RMP accidents and specific associated information within six months to the RMP database. Therefore, the RMP database as of August 1, 2021, is expected to include RMP accidents and their specific associated information as of December 31, 2020. However, because accident data are reported to the RMP database by facility owners and operators, EPA acknowledges the likelihood of late-reported accidents affecting these last few years of data because some facilities may have not reported their RMP accidents as they are required to do. See sections 3.2 and 3.3 of the RIA for more on this and other limitations on the number and costs of baseline accidents.

[39] Further discussed in detail in Chapter 6 of the RIA.

example, the Philadelphia Energy Solutions Refining and Marketing LLC facility in Philadelphia, PA, had a fire and explosions in the PES Girard Point refinery HF alkylation unit on June 21, 2019, which resulted in the release of HF.[40] This facility deregistered the affected process before the deadline for their subsequent RMP report. Due to the omission of such accidents and the omission of the cost categories listed in the beginning of this paragraph, the monetized costs of RMP accidents to society underestimate the number and magnitude of RMP chemical accidents.

EPA estimated total average annual onsite damages of $497.9 million. The largest monetized, average annual, onsite damage category was property damage, which resulted in average annual damage of approximately $454.58 million. The next largest impact was onsite fatalities ($37.57 million) and injuries ($5.75 million). EPA estimated total average annual offsite damages of $42.33 million. The largest monetized, average annual, offsite damage category was property damage, which resulted in average annual damage of approximately $35.71 million. The next largest impact was from evacuations ($3.80 million), sheltering in place ($2.52 million), hospitalizations ($0.28 million), and medical treatment ($0.03 million).

The risk of being impacted by an accidental release is even more apparent in communities where multiple RMP facilities are in close proximity to residential areas.[41] The 2022 SCCAP proposed rule not only discussed data demonstrating this elevated risk, but also noted that a higher frequency of accidental releases in such communities is consistent with the common-sense notion that, while accidental releases are low-probability, high consequence

[40] For a description of damages from this case see section 3.2.1 of the RIA and the CSB Report, Fire and Explosions at Philadelphia Energy Solutions Refinery Hydrofluoric Acid Alkylation Unit, Factual Update, October 16, 2019, https://www.phila.gov/media/20191204161826/US-CSB-PES-Factual-Update.pdf.

[41] Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs Under the Clean Air Act, section 112(r)(7); Safer Communities by Chemical Accident Prevention (April 19, 2022).

events, the more facilities near a community, the higher the likelihood that the community will be faced with such an event, or multiple events (all other factors being equal). Lowering the probability and magnitude of accidents by putting more of a focus on prevention reduces the risks posed by these RMP facilities,[42] which is one of the objectives of the present RMP amendments.

EPA received various comments indicating that EPA has appropriate authority to revise RMP regulations. For the reasons stated directly above and throughout the proposal where we outline EPA's statutory authority under CAA section 112(r)(7), EPA agrees with these comments. Conversely, EPA also received comments that EPA is exceeding its statutory authority because it does not have jurisdiction over worker safety issues. EPA disagrees that it has exceeded its statutory authority in this way in this rulemaking. EPA acknowledges that both EPA and OSHA have separate mandates under the Occupational Safety and Health Act (29 U.S.C. 651), the CAA, and the requirements enacted in the CAAA. In the 1990s, both Agencies fulfilled their mandatory duties to promulgate and issue the rules required by CAA sections 112(r)(3)-(5) and 112(r)(7)(B), as well as section 304 of the CAAA. The focus of OSHA's regulations in the PSM standard is on workplace safety, while EPA's focus in the RMP regulations has been primarily on minimizing the public impacts of accidental releases through prevention and response. Today's rule maintains EPA's focus on minimizing the public impacts of accidental releases even as it also reduces impacts on facilities and workers. As explained throughout the proposal and in this final action, the OSHA PSM standard and EPA RMP

[42] EPA notes that the two industrial sectors that are the focus of more requirements under the SCCAP rule, petroleum refineries (NAICS 324) and chemical manufacturers (NAICS 325) have been responsible for 42% of the accidental releases in the RMP database over the years 2016-2020. Approximately 83% of the costs of RMP accidental releases during 2016-2020 are attributed to these sectors. More details on the number and costs of baseline RMP accidents can be found in the Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention: Final Rule. This document is available in the docket for this rulemaking (EPA-HQ-OLEM-2022-0174).

regulations are closely aligned in content, policy interpretations, and enforcement. This is not surprising, as accident prevention steps that make a process safe for workers often will be similar, or the same as, steps that would prevent deleterious impacts on the public. Congress recognized this relationship by requiring EPA to coordinate its requirements with those of OSHA in developing accident prevention regulations and requiring OSHA to coordinate with EPA when developing its PSM standard (see CAA section 112(r)(7)(D) and CAAA section 304(a)). Therefore, since the inception of these regulations, EPA and OSHA have coordinated closely on their implementation in order to minimize regulatory burden and avoid conflicting requirements for regulated facilities. This coordination has continued throughout the development of this rule and is explained further in the relevant sections below.

A couple of commenters called on EPA to exercise its "full statutory authority" to issue measures that prevent disasters 'to the greatest extent practicable."' EPA disagrees with these comments. As mentioned above, while EPA is authorized to promulgate regulations that provide for the prevention and detection of accidental releases to the greatest extent practicable, so too must these regulations be reasonable. The relevant statutory phrase describing EPA's authority to regulate under CAA section 112(r)(7)(B)(i), authorizes "reasonable regulations . . . to provide, to the greatest extent practicable," for the prevention and detection of and response to accidental releases of substances listed in 40 CFR 68.130. EPA interprets the term "practicable" in this context to include concepts such as cost-effectiveness of the regulatory and implementation approach, as well as the availability of relevant technical expertise and resources to the implementing and enforcement agencies and the owners and operators who must comply with the rule. Further, an interpretation of the statute that does not give meaning to the qualifier "reasonable" to the authority to regulate "to the greatest extent practicable," as the commenters

suggest, would be inconsistent with the structure of the statute. The terms "reasonable" and "practicable" operate both as authorization for EPA's regulations and as limitations on the scope of EPA's authority under CAA section 112(r)(7)(B)(i), while the phrase "greatest extent practicable" directs EPA to select the regulatory option that "provide[s] the greatest level of practicable protection" from "among those regulatory options that are reasonable." 84 FR 69849 (Dec. 19, 2019); see also 87 FR 53566 (Aug. 31, 2022). To the extent both the 2019 compliance-driven and the 2022 rule-based, prevention-focused approaches are reasonable, the approach of this final rule would be more protective and therefore be "'to the greatest extent practicable' among the reasonable approaches.").

As recognized by the Supreme Court in *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015), "reasonable regulation" generally involves some sort of examination of the benefits and the burdens of a rule. Nevertheless, the Court in *Michigan v. EPA* did not mandate a strict analysis of quantified cost and benefits and limit the Agency to adopting only those measures that have quantified costs exceeding benefits. In assessing the types of benefits EPA should consider in a rulemaking under CAA 112(r)(7) , EPA recognizes that a major purpose of the accidental release provisions of the CAA is to help mitigate and prevent large scale catastrophic incidents that are rare and therefore difficult to quantify.[43] Both the Senate and the House committee reports on the CAAA specifically identify the Union Carbide-Bhopal incident as one that demonstrated the need for the accidental release prevention provision (House Report at 155-57; Senate Report at 134-35, 143-44). The Congressional reports and floor debates also cite an EPA study identifying 17 events that, based only the volume and toxicity of the chemicals involved (and not accounting

[43] Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention: Final Rule. This document is available in the docket for this rulemaking (EPA-HQ-OLEM-2022-0174).

for factors such as location, climate, and operating conditions) had the potential for more damage than the Union Carbide-Bhopal incident.[44] Therefore, when assessing the reasonableness of the benefits and burdens of various regulatory options, EPA places weight on both preventing more common accidental releases captured in the accident history portion of the RMP database while also placing weight on less quantifiable potential catastrophic events. Our judgment as to what regulations are "reasonable" is informed by both quantifiable and unquantifiable burdens and benefits.

The fact that accidents continue to occur shows that we still have reason to exercise statutory authority to promulgate reasonable regulations to provide for the prevention and detection of those accidents to the greatest extent practicable when the opportunity exists to improve the performance of our regulatory program. In determining what is "reasonable" when developing regulations under CAA section 112(r)(7)(B), EPA acknowledges that some facilities are less likely to have an accidental release than others and that the statute gives the Agency the authority to distinguish among classes of facilities. When developing this rulemaking, EPA therefore had the authority to include multiple factors when determining what is reasonable, such as frequency of RMP accidents or proximity to both nearby communities and other RMP facilities that could, as a result, make the communities and other facilities be more susceptible when it comes to being exposed to a worst-case scenario. For example, as mentioned in the proposed rulemaking, the per facility accident rate between 2016 and 2020[45] for all regulated

[44] Senate Report at 135; House Report at 155; Representative Richardson, 136 Congressional Record 35082 (1990) (statement of Representative Richardson); 136 Congressional Record 36057 (1990) (statement of Senator Durenberger).

[45] Due to a lack of alternative data describing RMP accident impacts more comprehensively, EPA chose this five-year dataset to reflect the most recent trends regarding RMP accidents. EPA used the August 1, 2021, version of the RMP database to complete its analysis because under 40 CFR 68.195(a), facilities are required to report RMP accidents and specific associated information within six months to the RMP database. Therefore, the RMP database as of August 1, 2021, is expected to include RMP accidents and their specific associated information as of

facilities was 3 percent (n = 382 facilities reporting at least one accident out of 12,855 unique facilities reporting between 2016 and 2020), the sector accident rates (number of unique facilities with accidents per sector divided by the number of unique facilities in each sector) for petroleum and coal manufacturing were seven times higher (23 percent, n = 41 out of 177) and two times higher for chemical manufacturing (6 percent, n = 96 out of 1631). Also, based on accidents occurring between 2016 and 2020, communities located near facilities in NAICS 324/325 that are located within 1 mile of another 324/325 facility are 1.5 times more likely to have been exposed to accidents at these facilities as compared to communities near facilities in NAICS 324/325 that are not located within 1 mile of another 324/325 facility (87 FR 53578).[46] Also mentioned in the proposed rulemaking, these surrounding communities would benefit from rule-based prevention prior to incidents, rather than the case-by-case oversight approach of the 2019 reconsideration rule (87 FR 53565). Therefore, EPA now believes the benefits of rule-based prevention for certain high-risk classes of facilities could help prevent high consequence accidents that affect communities and are therefore reasonable and necessary to meet the statutory objective "to the greatest extent practicable."

As mentioned in the proposed rulemaking, in contrast to the approach in the 2019 reconsideration rule, the approach taken in this action for the new prevention program provisions—STAA, root cause analysis incident investigation (RCA), and third-party

December 31, 2020. However, because accident data are reported to the RMP database by facility owners and operators, EPA acknowledges the likelihood of late-reported accidents affecting these last few years of data because some facilities may have not reported their RMP accidents as they are required to do. While some commenters have suggested that late reporting may impact the count of total accidents in recent years, neither the commenters nor EPA have identified any impacts of late reporting on the distribution of accidents by sector. See sections 3.2 and 3.3 of the RIA for more on this and other limitations on the number and costs of baseline accidents.

[46] In the SCCAP proposal, EPA acknowledged the likelihood of late-reported accidents affecting the last few years of data. Based on its prior experience, EPA judged that there would be a slight increase in the number of accidents in the last few years of data.

compliance audits—refines the focused regulatory approach found in the 2017 amendments rule, and finalizes provisions to better identify risky facilities to prevent accidental releases before they can occur. As explained in further detail in following sections of this preamble, EPA therefore maintains that by taking a rule-based, prevention-focused approach in this action rather than the so-called "compliance-driven" approach in the 2019 reconsideration rule, this rule will further protect human health and the environment from chemical hazards through process safety advancement without undue burden. Similarly, other modifications to approaches adopted in 2019 to information disclosure and emergency response will also better balance security concerns with improved community awareness and lead to better community preparedness for accidents. By contrast with the prior approach, the approach of this final rule is expected to be both reasonable and more protective, and thus provide for release prevention, detection, and response to the greatest extent practicable." EPA has determined, based on the updated factual and scientific record now before the agency, including a thorough evaluation of public comments, and in view of its statutory responsibilty and legal authority, to be the approach it needs to take, among the potentially available or reasonable approaches.

IV. Discussion of General Comments

This section of this preamble focuses on general comments on the 2022 SCCAP proposed rule in its entirety and EPA's response to those comments. Comments and discussion on provision-specific topics can be found under each individual provision heading. Comments received on additional considerations posed in the 2022 SCCAP proposed rule but outside the scope of this rulemaking are included the Response to Comments document[47], available in the

[47] 2023. EPA Response to Comments on the 2022 SCCAP Proposed Rule (August 31, 2022; 87 FR 53556). This document is available in the docket for this rulemaking.

docket for this rulemaking.[48] In the proposal EPA acknowledged the need for reviewing the list of RMP-regulated substances. Section 112(r)(3) requires periodic review of the RMP regulated substance list. A priority chemical for EPA's upcoming review will be ammonium nitrate. EPA continues to review the stakeholder input from this solicitation.

A. General Comments

Many commenters provided general comments about the proposed rulemaking. Several commenters supported EPA's proposed rule, including some offering suggestions for improvement. Several commenters requested EPA consider making the proposed rule stronger than it is currently written. Several of these commenters provided detailed examples of recent accidents and incidents, including health impacts to the community, dating back to 2004 that they hope stronger RMP regulations would prevent. A few commenters provided additional steps EPA should take in tandem with the proposed rule. Another commenter stated that the current process puts the onus on community members in close proximity to facilities to protect themselves when it is EPA's responsibility to regulate these facilities and ensure that the public is safe. The commenter noted that there needs to be more enforcement by the Federal government to hold facilities accountable, especially in States lacking enforcement. Several commenters stated that the proposed rule relies too much on voluntary commitments from RMP facilities. One commenter noted that the current process remains reactive rather than proactive and corrective rather than preventative.

Several commenters opposed EPA's proposed rule, including some recommending that EPA withdraw the proposed rule. A few commenters opposed the proposed rule due to what the

[48] For example, one such consideration posed outside the scope of this rulemaking was the need for reviewing the list of RMP-regulated substances. EPA still acknowledges the need for reviewing the list and will consider received comments when determining whether to take further action on this issue.

commenters asserted are vague standards and definitions that could create uncertainties. Several commenters stated that the new requirements under the 2022 SCCAP proposed rule would impose unnecessary burdens to facilities, including new training and analyses, higher costs, or lower effectiveness of the program. Several commenters asserted that there is no basis or evidence that the 2022 SCCAP proposed rule is necessary.

B. EPA Responses

EPA is finalizing several amendments to the RMP rule to further protect human health and the environment from RMP accidents. The final rule's emphasis is on protecting communities most at risk of having an accidental release from a facility in their midst. Under the final rule, facilities in these communities will be required to do more to prevent chemical accidents, including conducting an STAA, more thorough incident investigations, and third-party audits. The final rule also includes new prevention provisions that have not been addressed in prior RMP rules, including empowering workers to make safety decisions and report non-compliance. The Agency is also increasing access to RMP facility information for fenceline communities in commonly spoken languages. EPA believes this final rule promotes transparency and gives more opportunities for the public and workers to be involved in accident prevention and emergency planning. EPA believes that in most cases, facilities needing to adopt the finalized provisions from scratch are most likely facilities that have not fully developed strong programs to ensure their commitment to process safety; strengthening prevention and response programs at such facilities will help to prevent and minimize accidental releases of toxic and flammable regulated substances.

EPA disagrees that that there is no basis or evidence that the proposed rule is necessary. Congress charged EPA to promulgate reasonable regulations to provide to the greatest extent

practicable for the prevention and detection of accidental releases. Even when EPA has discharged its mandatory duty under CAA section 112(r)(7)(B), the Agency retains the discretion to amend the regulations when they can be improved to further the intent of the statute. Therefore, when major concerning RMP accidents, including major accidents, continue to occur as they have,[49] it is EPA's responsibility to further protect human health and the environment, if there are reasonable opportunities to do so. Many of the amendments being finalized in this action, some stronger than what was proposed, were informed by commenters, including many that suffer the consequences of accidents occurring at RMP facilities or work in RMP-covered processes. The amendments are also informed by RMP accident data which indicate trends in accident occurrence. For example, as discussed in the proposal, recent accidents highlight that while the annual count of accidents decreased overall between 2016 and 2020, in 2019, the TPC Group (TPC) explosion and fire in Port Neches, Texas, reported the largest number of persons ever evacuated (50,000 people) as the result of an RMP-reportable incident, as well as $153 million in offsite property damage.[50] EPA did not conduct an inspection at TPC just prior to this accident because as indicated in the 2019 reconsideration rule, EPA prioritizes inspections at facilities that have had accidental releases. TPC had no recent prior RMP accidental release and was not otherwise due for inspection under EPA's routine oversight plan. Therefore, we believe our current enforcement resources, and even prioritizing inspections, are not capable of

[49] As part of this rule, EPA analyzed accidents from 2016 to 2020. The impacts of high consequence RMP-reportable accident events between 2016 and 2020 demonstrate the impact of low probability, high consequence events on annual averages. For more information see the Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention: Final Rule.

[50] The U.S. Chemical Safety Board's TPC incident investigation report outlines the safety issues contributing to the incident, conclusions, recommendations, and key lessons for the industry. *https://www.csb.gov/tpc-port-neches-explosions-and-fire/*

effectively addressing accident-prone facilities without additional regulatory requirements mandates.

While large events are rare, CAA section 112(r) was intended as a prevention program for large catastrophic releases as well as more common accidental releases. Post-event compliance measures such as outreach and enforcement are "too little, too late" for such large, but rare, events. Therefore, this final rule provides additional prevention program provisions reasonably calculated for stationary sources handling dangerous chemicals to prevent potentially catastrophic incidents. EPA therefore believes the provisions of this final rule will be generally effective to help improve chemical process safety by preventing accidents that result in harm and damage; assist in planning, preparedness, and responding to RMP-reportable accidents; and improve public awareness of chemical hazards at regulated sources. Thus, these are necessary updates to the existing RMP rule to ensure chemical accident prevention and mitigation. Further, while many of the provisions of this final rule reinforce each other, it is EPA's intent that each one is merited on its own, and they are thus severable.

EPA also believes that because of the performance-based nature of the regulation, and the similar nature of these amendments, the requirements provide facility owners with latitude in their methods of implementing the requirements. This type of regulation does not create uncertainties or unnecessary burdens, but rather offers reasonable flexibilities in adopting the most effective measures to prevent and mitigate accidents. For example, while EPA requires implementation of at least one practicable passive measure, or its equivalent, the new STAA requirements are not prescriptive in nature as to what a facility can choose as its measure. The rule gives facilities flexibility and allows facility owners and operators to exercise reasonable judgement to determine what technology or risk reduction measures work best for their particular

chemical uses, processes, or facility. The final rule's emergency exercise requirements also give owners and operators significant flexibility in establishing exercise schedules and exercise scenarios. Other provisions of the final rule afford similar flexibilities.

EPA agrees assistance, outreach, and enforcement will help ensure compliance with the rule. For example, enforcement of the RMP regulation has and will continue to occur. Because of that fact, EPA expects most facilities will proactively make the necessary prevention improvements in order to comply with the rule and thus avoid enforcement. Enforcement of RMP facilities remains an Agency priority, as indicated by its adoption as a National Enforcement and Compliance Initiative (NECI) since 2017. The goal of this NECI is to reduce the risk to human health and the environment by decreasing the likelihood of chemical accidents. Activities under the initiative include having regulated facilities and industry associations work to improve safety; increase compliance with RMP; and promote coordination and communication with State and local responders and communities. The capacity built by the NECI will continue to benefit oversight by EPA and its partner implementing agencies even after the NECI. Furthermore, EPA intends to publish guidance for certain provisions, such as STAA, root cause analysis, third-party audits, and employee participation. Once these materials are complete, owners and operators can familiarize themselves with resources and best practices that EPA has gathered and found to be useful in helping to develop and maintain strong prevention programs. The Agency views these compliance activities as a complement to strong accidental release prevention and response, but they are not a substitute for the stronger prevention measures and response provisions set forth in the final rule.

V. Prevention Program Requirements

A. Hazard Evaluation Amplifications

1. Summary of Proposed Rulemaking

a. Natural Hazards, 40 CFR 68.50 and 68.67

EPA proposed to require that hazard evaluations under 40 CFR 68.50(a)(5) and 68.67(c)(8) explicitly address external events such as natural hazards, including those caused by climate change or other triggering events that could lead to an accidental release. EPA proposed to define natural hazards as naturally occurring events with the potential for negative impacts, including meteorological hazards due to weather and climate, as well as geological hazards.

In addition to the proposed approach, EPA requested comment on whether the Agency should specify geographic areas most at risk from climate or other natural events by adopting the list of areas exposed to heightened risk of wildfire, flooding storm surge, or coastal flooding. EPA further asked whether the Agency should require sources in areas exposed to heightened risk of wildfire, flooding, storm surge, coastal flooding, or earthquake, to conduct hazard evaluations associated with climate or earthquake as a minimum, while also requiring all sources to consider the potential for natural hazards unrelated to climate or earthquake in their specific locations.

b. Power Loss, 40 CFR 68.50 and 68.67

EPA proposed to require that hazard evaluations under 40 CFR 68.50(a)(3) and 68.67(c)(3) explicitly address the risk of power failure, as well as standby or emergency power systems. EPA also proposed to require that air pollution control or monitoring equipment associated with prevention and detection of accidental release from RMP-regulated processes have standby or backup power to ensure compliance with the intent of the rule. In addition to the proposed approach for standby or backup power for air pollution control or monitoring

equipment, EPA requested comment on any potential safety issues associated with the requirement.

c. Stationary Source Siting, 40 CFR 68.50 and 68.67

EPA proposed to require that hazard evaluations under 40 CFR 68.50(a)(6) and 68.67(c)(5) explicitly define stationary source siting as inclusive of the placement of processes, equipment, buildings within the facility, and hazards posed by proximate facilities, and accidental release consequences posed by proximity to the public and public receptors.

d. Hazard Evaluation Information Availability, 40 CFR 68.170 and 68.175

EPA proposed to require that risk management plans under 40 CFR 68.170(e)(7) and 68.175(e)(8) include declined natural hazard, power loss, and siting hazard evaluation recommendations and their associated justifications. In addition to the proposed approach, EPA requested comment on whether the Agency should require declined natural hazard, power loss, and siting hazard evaluation recommendations to be included in narrative form and whether the Agency should provide specific categories of recommendations for facilities to choose from when reporting or allowing the owner or operator to post this information online and provide a link to their information within their submitted RMP. Further, EPA requested comment on methods to provide justification for declining relevant hazard evaluation recommendations.

2. Summary of Final Rule

Based on comments on both the proposed options and alternative approaches presented, EPA is finalizing the proposed provisions with the following modifications:

- Revising the definition of "natural hazards" at 40 CFR 68.3 to mean meteorological, environmental, or geological phenomena that have the potential for negative impact, accounting for impacts due to climate change.

- Revising the hazard evaluation regulatory text at 40 CFR 68.50(a)(5) and 68.67(c)(8) to focus amplifying language on natural hazards rather than "external hazards" and include "exacerbate" as an influence on an accidental release from natural hazards in addition to "cause." EPA is also removing the description of climate change in this section of regulatory text because the definition of natural hazards at 40 CFR 68.3 now includes accounting for climate change
- Revising 40 CFR 68.50(a)(3) and 68.67(c)(3) to require monitoring equipment associated with prevention and detection of accidental releases from covered processes to have standby or backup power.
- Revising 40 CFR 68.52(b)(9) and 68.69(a)(4) to require documentation of removal of monitoring equipment associated with prevention and detection of accidental releases from covered processes during imminent natural hazards.
- Revising 40 CFR 68.50(a)(6) and 68.67(c)(5) to correct the technical term of "facilities" to "stationary sources."

3. Discussion of Comments and Basis for Final Rule Provisions

The discussion and basis for each provision is below. The section is organized by including comments and EPA's responses grouped by the various aspects of each provision the Agency received comments on (italicized headings). The same organization is used for the Discussion of Comments and Basis for Final Rule Provisions sections throughout this preamble.

a. Natural Hazards

EPA's Proposed Approach

i. Comments

Several commenters expressed support for EPA requiring facilities to conduct natural hazard assessments since natural hazards have the potential to initiate accidents at RMP facilities. A few commenters provided examples of natural disasters that have resulted in chemical accidents and stated that natural hazard assessments could better protect workers and surrounding communities from these types of incidents. One commenter suggested that EPA require that RMP facilities act to address all natural hazard threats as they will only worsen in the face of climate change. The commenter also suggested that the requirement should apply to all RMP facilities.

One commenter noted that improving the resilience of facilities to extreme weather events is warranted because of the direct, substantial, and cumulative risk to EJ communities with EJ concerns that are more likely to be located in areas susceptible to flooding. One commenter noted that EPA's findings on risks to facilities from natural hazards is consistent with States' and municipalities' analysis. The commenter noted that several States have already taken steps to require facilities to consider threats from extreme weather, including Massachusetts and New York. A couple of commenters expressed support for the inclusion of natural hazard analysis but recommended that EPA clarify the language in the proposed rule to better define natural hazards and climate-related hazards. One of the commenters suggested that the definition of natural hazard assessments provided in the Center for Chemical Process Safety's (CCPS), "Guidelines for Hazard Evaluation Procedures," 3rd edition (2008) is suitable.

Several commenters expressed opposition to the inclusion of natural hazard assessments. For example, several commenters stated that EPA has not provided sufficient justification for these new requirements. One of the commenters stated that EPA has not indicated why the existing regulations are inadequate. Similarly, several commenters noted that facilities are

managing natural hazards well, and therefore the commenters suggested that additional requirements are not necessary.

Several commenters noted that the number of accidental releases caused by natural hazards is small compared to other causes, and small compared to how many natural hazards occur daily, and therefore does not justify EPA adding additional requirements for assessing natural hazards or other external events. One of the commenters noted that the small number of accidents may be attributed to the effectiveness of existing regulations and voluntary measures regarding emergency planning.

Several commenters noted that the natural hazard assessment provisions are already considered in the process hazard analysis (PHA) or other current regulations and are, therefore, redundant. Several commenters indicated that the natural hazard provisions in the proposed rule overlap with or are redundant of existing OSHA regulations and recommended that EPA not conflict or compete with OSHA standards, as including them in EPA's rules would create duplicative work for facilities and introduce uneven enforcement between the two agencies.

Several commenters stated that the proposed natural hazard assessment provisions are overly burdensome to facilities. One of the commenters stated that EPA does not have authorization from Congress to transform the PHA program to include natural hazards "caused by climate change or other triggering events." One commenter suggested that the determination of whether or not to implement additional layers of protection from natural hazards should be left to the facility and not subject to regulatory scrutiny.

One commenter stated that the reference to external events should be removed because it is an undefined and vague term. The commenter added that the proposed requirement that the PHA include natural hazards "caused by climate change or other triggering events" is overly

broad in that it appears to include events that go well beyond the proposed definition of natural hazards. The commenter stated that these broadly defined and ambiguous terms in the regulatory text could lead to an infinite list of external events and associated recommendations from the PHA a facility must consider. The commenter urged that EPA must provide much-needed clarity and explanation for the proposed language.

ii. EPA Responses

EPA agrees that natural hazards are hazards for chemical facilities because they have the potential to initiate accidents that threaten human health and the environment and disagrees with comments that the Agency did not provide sufficient justification for the new requirements. In the proposal, the Agency provided data which indicate that, while not all, *some* RMP accidents are being reported as having a natural cause as the initiating event and include unusual weather conditions as a contributing factor.[51] EPA believes that adding clarifying language to a provision is a simple way to promote awareness of these potential accidents which should help prevent some. Additionally, EPA agrees that climate change increases the threat of extreme weather as a natural hazard and should be taken into account at covered facilities when evaluating hazard frequency and severity. EPA is finalizing the proposed provisions because the Agency believes that making the requirement more explicit to evaluate natural hazards, which includes taking into account climate change, in hazard evaluations for Program 2 and Program 3 RMP-regulated processes will ensure that the threats of natural hazards are properly evaluated and managed to prevent or mitigate releases of RMP-regulated substances at covered facilities. EPA agrees that doing so will better protect surrounding communities from these types of incidents.

[51] Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs Under the Clean Air Act, section 112(r)(7); Safer Communities by Chemical Accident Prevention (April 19, 2022).

In response to the comment that improving the resilience of facilities to extreme weather events is warranted due to the risk posed to communities with EJ concerns, EPA agrees that accidental releases of regulated chemicals from RMP-regulated facilities likely pose disproportionate risks to historically marginalized communities. EPA expects that the benefits of this clarified provision may lower potential exposure for fenceline communities with historically underserved and overburdened populations by reducing disproportionate damages that RMP-reportable accidents might otherwise inflict on those populations.

EPA agrees with the comment that the Agency's findings on risks to facilities from natural hazards are consistent with those of States that already require facilities to consider threats from extreme weather. However, because not all States require facilities to consider natural hazards, and because EPA continues to see natural hazards as a factor in RMP accidents, the Agency believes the requirement to evaluate and control natural hazards should be explicitly stated in the RMP regulation. Moreover, EPA notes that doing so is consistent with other countries that are also expanding efforts to address natural hazards at chemical facilities, as discussed in the 2022 SCCAP proposed rule (87 FR 53568).

In response to the comments requesting that EPA better define natural hazards and climate-related hazards, EPA notes that it has revised its definition to be more closely align with language used in the Federal Emergency Management Agency's (FEMA) National Risk Index (NRI)[52] and Climate Essentials for Emergency Managers[53] resources. For this final rule, EPA is defining natural hazards to mean meteorological, climatological, environmental, or geological phenomena that have the potential for negative impact, accounting for impacts due to climate

[52] *https://hazards.fema.gov/nri/natural-hazards*

[53] *https://www.fema.gov/sites/default/files/documents/fema_climate-essentials_072023.pdf*

change. Examples of such hazards include, but are not limited to, avalanche, coastal flooding, cold wave, drought, earthquake, hail, heat wave, hurricane, ice storm, landslide, lightning, riverine flooding, strong wind, tornado, tsunami, volcanic activity, wildfire, and winter weather. EPA believes CCPS' definition and guidance[54] presented in the SCCAP proposal, is still useful for facilities' evaluation of natural hazards for process safety, however, the Agency believes these FEMA resources reflect a more comprehensive base to identify, evaluate and understand relative natural hazard risk, particularly how natural hazards must account for a changing climate. .For example, the NRI identifies 18 specific natural hazards, which EPA has identified in its definition, that are further supported as their designation as natural hazards and are able to be represented in terms of expected annual loss, which incorporate data for exposure, annualized frequency, and historic loss ratio.[55] Additionally, the Climate Essentials for Emergency Managers points to many climate change resources including the Climate Risk & Resilience Portal[56] and the Climate Mapping for Adaption and Resilience Tool[57] that allows users to examine simulated future climate conditions associated with the natural hazards identified in the NRI.

EPA disagrees that the natural hazard assessment provisions are redundant and will result in uneven enforcement due to them already being considered in both the PHA requirements and current OSHA regulations. EPA's goal of this provision is to better reflect the Agency's longstanding regulatory requirement, rather than to impose additional regulatory requirements (and thus potential additional costs) that conflict with the OSHA PSM regulatory requirements.

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[54] CCPS, *CCPS Monograph: Assessment of and Planning For Natural Hazards* (American Institute of Chemical Engineers, 2019*), https://www.aiche.org/sites/default/files/html/536181/NaturalDisaster-CCPSmonograph.html.*

[55] *https://hazards.fema.gov/nri/natural-hazards*

[56] *https://disgeoportal.egs.anl.gov/ClimRR/*

[57] *https://resilience.climate.gov/*

In fact, EPA has coordinated with OSHA throughout the rulemaking process to ensure the intent of adding explicit natural hazard regulatory text does not create conflicting requirements between the two regulatory programs.

In response to comments that the natural hazard assessment provisions are overly burdensome to facilities, and that the Agency does not have authorization from Congress to transform the PHA program to include natural hazards "caused by climate change or other triggering events", EPA disagrees. EPA has stated this provision makes more explicit what is already required in the RMP regulations. As noted in the proposed rule, since the 1996 RMP rule, EPA has said events such as floods and high winds should be considered as potential release-initiating events when conducting a PHA, and the RMP guidance further expands on this point.[58] Furthermore, the hazard evaluation amplifications reflect existing industry practice, and therefore, EPA assumes that these hazard evaluation amplifications impose no new requirements or costs on facilities that are in compliance with the RMP rule and common industry practice. By amplifying and making more explicit the need to evaluate natural hazards as potential causes of releases, EPA expects those facilities that are currently not performing such evaluations will better understand what the rule requires. Additionally, each modification of the RMP rule that EPA proposed and is finalizing is based on EPA's rulemaking authority under CAA section 112(r)(7). EPA has outlined its authority for all the changes to the regulation in section III.C of this preamble.

In response to comments that the determination of whether to implement additional layers of protection from natural hazards should be left to the facility and not subject to regulatory

[58] 87 FR 53567; August 31, 2022

scrutiny, EPA notes that it is not requiring implementation of protective measures. At this time, EPA is simply emphasizing the already-existing requirement that the evaluation of natural hazards be explicitly included in hazard reviews and PHAs for Program 2 and Program 3 RMP-regulated processes. The Agency expects stationary source management to make reasonable decisions based on the information collected through this provision, like other provisions in the PHA. EPA acknowledges that natural hazards and process operations vary throughout the United States, and implementation of protective measures will therefore also vary among RMP processes. However, because the RMP rule is performance-based, EPA believes that all regulated RMP facilities can ultimately be successful in addressing natural hazards for their locations within their risk management programs.

In response to the comment that the reference to external events should be removed because it is vague and overly broad, EPA acknowledges that analysis of external events may be broader than expected. EPA is therefore revising the regulatory language in the final rule to focus on natural hazards rather than external hazards. Additionally, EPA is including "exacerbate" as an influence of an accident from natural hazards in addition to "cause" to further clarify the regulatory language. As a few commenters discussed, and EPA agrees, in some cases natural hazards can be a contributing factor for accidental releases, making them more extreme or likely, rather than causing them independently. Finally, EPA is removing the description of climate change in the hazard evaluation regulatory language to eliminate redundancy, as EPA is defining natural hazard as taking into account climate change impacts.

Alternative Approaches for Specifying Areas Most At Risk and Identifying Sources with Heightened Risk of Climate Events or Earthquakes

i. Comments

Several commenters expressed support for EPA specifying areas most at risk from climate or other natural events. One of the commenters indicated that adopting the list of areas exposed to heightened risk of wildfire, flooding, storm surge, or coastal flooding is necessary because facilities would face difficulties in assessing future climate risks without this additional guidance from EPA. A couple of commenters recommended that EPA use the list in the U.S. Government Accountability Office's 2022 report, "Chemical Accident Prevention: EPA Should Ensure Regulated Facilities Consider Risks from Climate Change."[59] One of the commenters also recommended using the list in the 2021 report, "Preventing Double Disasters," from David Flores et al.[60] A couple of commenters suggested that the list of at-risk facilities or geographic areas should be regularly updated using the latest available data. A couple of commenters clarified that such a list of at-risk areas should not be used to limit the number of facilities that are required to conduct a natural hazard or climate change hazard analysis.

A couple of commenters expressed opposition to the development of a list of geographic areas most at risk from natural hazards or climate-related hazards. One of the commenters indicated that such a list is not necessary because facilities in these areas are generally aware of the potential for those hazards. The commenter stated that EPA has not demonstrated sufficient need to apply geographic distinctions as a part of the regulatory approach. One commenter stated that according to the Intergovernmental Panel on Climate Change's reporting, there are challenges with attributing events to climate change; therefore, the commenter stated that they oppose EPA specifying geographic areas most at risk from climate impacts.

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[59] *https://www.gao.gov/assets/gao-22-104494.pdf*

[60] *https://www.ucsusa.org/sites/default/files/2021-07/preventing-double-disasters%20FINAL.pdf*

One commenter expressed support for EPA requiring sources in areas exposed to heightened risk of natural disasters to conduct hazard evaluations associated with climate or earthquakes as a minimum, while also requiring all sources to consider the potential for natural hazards unrelated to climate or earthquakes in their specific locations. Similarly, another commenter urged that it is EPA's responsibility to regulate chemical facilities appropriately. The commenter noted that the co-location of multiple polluting sites in climate vulnerable areas is common, with roughly a third of the nation's RMP facilities at increased risk from climate impacts; however, despite known risks, RMP facilities are not currently required to plan for scenarios such as inland flooding, coastal flooding, storm surge, and wildfires.

Conversely, one commenter stated that EPA does not need to apply different regulatory requirements based on geography, since EPA has not demonstrated sufficient need to apply such geographic distinctions as part of any regulatory approach. Instead, the commenter stated that a general provision to require hazard reviews and PHAs to evaluate the potential for natural hazards, such as (but not necessarily limited to) specific examples, would be more practical.

ii. EPA Response

While EPA agrees it could be useful to specify areas most at risk from natural events and identify sources with heightened risk of climate events, EPA is not finalizing a regulatory provision that will adopt these approaches at this time. Rather, EPA will use these comments, as well as those received on guidance development, to update the current hazard evaluation guidance and initiate ways to share natural hazard resources with facility owners and operators to help them identify and evaluate potential natural hazard risks. EPA expects to develop and release this guidance approximately one year after this final rule. The SCCAP proposed rule identified relevant new studies for RMP facilities and the threat of natural hazards to them.

Those studies included the Center for Progressive Reform, Earthjustice, and the Union of Concerned Scientists', report "Preventing Double Disasters"[61] and the Government Accountability Office's report "Chemical Accident Prevention: EPA Should Ensure Regulated Facilities Consider Risks from Climate Change"[62]. EPA also believes CCPS' guidance presented in the SCCAP proposal, is still useful for facilities' evaluation of natural hazards for process safety. Lastly, EPA now also recognizes the identification of hazards in FEMA's NRI[63] and Climate Essentials for Emergency Managers[64] as the most comprehensive foundation to identify, evaluate and understand relative natural hazard risk, particularly how natural hazards must account for a changing climate. EPA intends to incorporate and further evaluate other resources as a minimum in its guidance and expects that information available in these resources can be helpful to be consulted to complement a facility's more localized information available from the State and local government.

b. Power Loss

EPA's Proposed Approach

i. Comments

One commenter agreed with EPA's approach to add regulatory text to emphasize that loss of power is among the hazards that must be addressed within hazard review. A few commenters expressed support for facilities having contingency plans to handle potential power loss. A few commenters noted that power loss has been identified as the cause of hazardous

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[61] David Flores, et al., Preventing ''Double Disasters'' (2021*), https://*www.ucsusa.org/sites/default/files/2021-07/preventing-double-disasters%20FINAL.pdf.

[62] U.S. Government Accountability Office, Chemical Accident Prevention: EPA Should Ensure Regulated Facilities Consider Risks from Climate Change (2022), *https://www.gao.gov/assets/gao-22-104494.pdf*

[63] *https://hazards.fema.gov/nri/*

[64] *https://www.fema.gov/sites/default/files/documents/fema_climate-essentials_072023.pdf*

chemical releases, such as the Shell East Site and Arkema incidents, and stated it is clear that more stringent requirements are needed. One commenter stated that they did not oppose requiring hazard reviews and PHAs to address power loss, but noted that in many cases, a company's RMP already considers both natural hazards and power loss. One commenter stated that facilities should provide information to local responders about their backup power capabilities during a hazard event, including the backup generation source, fuel type, capacity (operational hours), and process consequences for extended power loss. The commenter stated that the information provided should address how long a facility can maintain the RMP process(es) safely with backup power. Several commenters urged EPA to require facilities to have backup power systems. A few commenters noted that EPA should require facilities to have enough backup power to safely run or shut down the entire facility in the event of power loss.

Several commenters noted that EPA has not provided data showing that power loss is a significant cause of accidents, and therefore the proposed rule is unwarranted. A few commenters stated that from 2016-2020, only 7 out of 448 reported accidents were linked to power loss. A few commenters stated that EPA did not adequately consider the costs and benefits of the proposed power loss provisions.

A couple commenters noted that EPA's proposal to explicitly require evaluation of standby and emergency power systems diverges with OSHA's PSM requirements in the PHA. The commenter stated that this proposal would inappropriately create an inconsistency between the two regulatory programs, injecting ambiguity and uncertainty into the PHA process. Another commenter urged EPA to not include these additional provisions in RMP regulations and instead allow OSHA to continue its oversight of these hazards.

One commenter strongly supported requiring air pollution control or monitoring equipment associated with prevention and detection of accidental releases from RMP-regulated facilities to have standby or backup power. The commenter claimed, however, that the proposed amendments to 40 CFR 68.50 and 68.67 are extremely vague regarding this requirement.

Another commenter noted that, while fenceline monitors could detect an accidental release in some circumstances, high wind events such as hurricanes can render them useless such that a loss of power to monitors would have no adverse effect on the source or the surrounding community. A couple of commenters stated that a focus on maintaining air pollution control or monitoring equipment during a power loss, while important, may detract from the fundamental purpose of the RMP.

One commenter requested that **the final rule require all facilities to have real-time fenceline air monitors with enforcement mechanisms and robust penalties for intentionally removing air monitors from service**. The commenter stated that there are currently no penalties for facilities that shut down their monitoring during an incident. The commenter requested that EPA strengthen the proposed rule to require expanded fenceline monitoring and adequate backup power for air monitors to operate continuously and that this be documented in a written plan that includes the location of the monitors. Conversely, a couple of commenters claimed that EPA made an unjustified assumption in the preamble of the proposed rule that facilities will remove air monitoring and control equipment from service prior to a natural disaster to evade monitoring requirements. The commenters stated that the suggestion that facilities attempt to evade regulatory agency requirements in the event of a natural disaster is improper and inappropriate.

A few commenters stated that EPA's proposal to explicitly require backup and emergency power systems exceeds the scope of RMP without proper justification. One

commenter expressed concern that the proposed backup power requirements exceed EPA's statutory authority and lack a reasoned basis. A couple of commenters also questioned whether EPA's statutory authority allows it to require such actions. The commenters contended that air emission monitoring equipment is typically regulated under other EPA CAA regulatory programs (New Source Performance Standards, National Emission Standards for Hazardous Air Pollutants, and Title V permitting program).

ii. EPA Responses

EPA agrees that power loss can threaten RMP-regulated processes and cause accidental releases if not properly managed, and therefore disagrees that the provisions are unwarranted. In the proposed rule, EPA provided data showing that power loss has resulted in serious accidental release incidents at RMP-regulated facilities (87 FR 53569), and EPA believes making more explicit this already-existing accident prevention program requirement to evaluate hazards of the process[65] will ensure that threats of power loss are properly evaluated and managed to prevent or mitigate releases of RMP-regulated substances at covered facilities. Therefore, EPA is finalizing the proposed revisions.

In response to the comment that facilities should provide local responders with their backup power capabilities during a hazard event, EPA maintains that it is very important to ensure that Local Emergency Planning Committees (LEPCs) or local emergency response officials have the information necessary for developing local emergency response plans; however, EPA believes it is not necessary to specify in the RMP rule the types or format of information that LEPCs or emergency response officials may request. Section 303(d)(3) of the

[65] Existing requirements of the hazards to be evaluated in hazard evaluations are found at 40 CFR 68.50(a) for Program 2 processes and at 40 CFR 68.67(a)-(c) for Program 3 processes.

Emergency Planning and Community Right to Know Act already provides the necessary authority to allow LEPCs to request information needed to develop the local emergency response plan. Furthermore, as part of the annual coordination between facilities and local emergency responders, responders may obtain information on backup power as appropriate.

In response to the comments requesting that EPA require facilities to have enough backup power to safely run in the event of power loss, EPA is not requiring implementation of standby or emergency power for the entirety of an RMP process at this time. However, the Agency is requiring the source to consider the appropriateness of backup power for their process and to explain decisions not to implement backup power. There may be situations where backup power is not critical to chemical release prevention, so the rule provides sources the opportunity to explain their decision-making. Such an approach is consistent with the performance-based structure of the rule that relies on examination of process safety issues by the source, rational decision-making on the part of owners and operators, and oversight by implementing agencies through compliance assistance and enforcement and the public through disclosure. EPA takes a slightly different approach with respect to backup power for monitors. EPA is requiring standby or backup power for air pollution control or monitoring equipment associated with prevention and detection of accidental releases from RMP-regulated processes and has amended regulatory language to reflect the requirement. EPA believes that doing so will help ensure compliance with the intent of the rule and ensure that the RMP-regulated substances at covered processes are continually being monitored so that potential exposure to chemical substances can be measured during and following a natural disaster. While the Agency acknowledges that there may be processes that do not require backup power, the Agency believes that once a facility has made and documented the determination that it is appropriate to have monitors for accidental releases,

then ensuring their operation through requiring backup power is an appropriate operational requirement.

In response to comments that the requirements would create inconsistency between EPA and OSHA regulatory programs, EPA seeks only to better reflect its longstanding regulatory requirement that loss of power is among the hazards that must be addressed within hazard evaluations, rather than impose additional regulatory requirements (and thus potential additional costs) that conflict with the OSHA PSM regulatory requirements.

In response to the comment that the amendments to 40 CFR 68.50 and 68.67 are vague, EPA again notes these amplifications are already preexisting requirements. Also, EPA's general approach in 40 CFR part 68 has been to recognize that process safety requires owners and operators to exercise reasonable judgement in making their facility safer. Therefore, EPA has, and continues to, allow substantial flexibility for sources on how to comply with the RMP rule. As noted in the proposal, EPA believes many facilities are already managing the hazard of power loss well and thus does not believe the amplification of power loss in the hazard evaluation regulatory text will negatively affect evaluation of this hazard.

In response to **comments regarding facilities' removal of air monitoring equipment**[66]**, EPA notes that the final rule is revising** 40 CFR 68.52(b)(9) and 68.69(a)(4) to require documentation of the removal of monitoring equipment for accidental releases during disasters in facility operating procedures. In doing so, the Agency addresses the concern that the threat of extreme weather events has, and will continue to be, used by some owners or operators to justify disabling equipment designed to monitor and detect chemical releases of RMP-regulated

[66] The backup power requirement of this rule only addresses monitors for accidental releases of regulated substances under 40 CFR 68.130. This rule does not create any obligation to provide backup power to monitors that may be required by other CAA programs.

substances at their facility (87 FR 53571). To prevent accidental releases, RMP owners or operators are required to develop a program that includes monitoring for such releases. EPA does not believe all natural disasters should be treated as an exception to this requirement. However, EPA understands that, in some situations, such as hurricane winds, there is a potential for damage to, or by, monitoring equipment if not secured and allows a source to shut down monitoring equipment in such cases provided that an explanation is included in its RMP.

EPA disagrees that the backup and emergency power system requirements exceed the scope of the RMP rule and EPA's statutory authority and also disagrees that the monitoring requirements may detract from the fundamental purpose of the RMP rule. Each modification of the RMP rule that EPA proposed and is finalizing is based on EPA's rulemaking authority under CAA section 112(r)(7). Both paragraph (A) and subparagraph (B)(i) of section 112(r)(7) explicitly grant EPA the authority to require monitoring for accidental releases. See CAA section 112(r)(7)(A)) (EPA "authorized to promulgate release prevention, detection, and correction requirements which may include monitoring"); CAA section 112(r)(7)(B)(I) (as appropriate, the accidental release regulations shall cover the use, operation, and upkeep of equipment to monitor accidental releases). The original rule established, through its statutory authority, the requirement to monitor for accidental releases to help prevent and mitigate releases. Therefore, backup and emergency power system requirements being finalized in this rule simply ensure proper operation of monitors and continuous compliance with the existing requirement.

In response to comments that EPA did not adequately consider the costs and benefits of the power loss provisions, EPA notes that it is not finalizing additional regulatory requirements from what already exists in the RMP regulations. The current RMP rule's PHA requirements include determining and evaluating "the hazards of the process" as well as "engineering…

controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies." (40 CFR 68.67(c)(1),(3)). Loss of power is one such hazard, and backup power is an engineering control applicable to the hazard and detection methodologies. Similar but less detailed requirements apply to Program 2 processes (40 CFR 68.50(a)). The hazard evaluation requirements reflect not only the OSHA and EPA rules but also existing industry recommended practices, and therefore, EPA assumes that these hazard evaluation amplifications impose no new requirements or costs on facilities. As EPA has discussed in prior RMP rulemaking RIAs, it is not possible to estimate quantitative benefits for proposed rule provisions as EPA has no data to project the specific contribution of each to an accident's impacts. As shown by accident trends, accident frequency and severity are difficult to predict. However, the 2022 SCCAP proposed rule and the accompanying Technical Background Document show that past accidents have been caused by power failure, and the backup power provisions target these events. Based on RMP-reportable accident and other data from RMP regulated industry sectors[67], chemical accidents can impose substantial costs on firms, employees, emergency responders, the community, and the broader economy. Reducing the risk of such accidents, the severity of the impacts when accidents occur, and improving information availability, as the provisions of this final rule intend, will provide benefits to the potentially affected members of society.

c. Stationary Source Siting

EPA's Proposed Approach

[67] Marsh JLT Specialty, "100 Largest Losses in the Hydrocarbon Industry," 27th Edition, March 2022. Accessed from https://www.marsh.com/uk/industries/energy-and-power/insights/100-largest-losses.html. Marsh provides estimates of large property damage losses in the hydrocarbon industry from 1974 to 2021 in current and 2021 dollars and in a few cases, business loss costs.

i. Comments

A few commenters expressed support for EPA's proposal to amend regulatory text for Program 2 and 3 processes to define stationary source siting evaluations as including placement of processes, equipment, buildings, and hazards posed by proximate facilities and accident release consequences posed by proximity to the public. One commenter stated that doing so would ensure the protection of human health and the environment. Another commenter stated that EPA should require implementation of stationary source siting recommendations found in the analysis to the greatest extent practicable to assure protection for fenceline communities. Similarly, another commenter suggested that if it is practicable for a facility to take an action to eliminate or lessen hazards associated with RMP processes through different siting, it should be required to do so.

Several commenters expressed concerns about the proposed requirements related to siting evaluations. Several commenters noted that implementing the facility siting requirements are unnecessary and duplicative because facilities covered by OSHA's PSM regulations already undergo similar requirements. The commenters stated that this creates the opportunity for inconsistent enforcement between EPA and OSHA.

Several commenters expressed concern that EPA did not define the term "proximate facilities." Many commenters were also concerned that when these facilities are identified, it is not practical to expect them to share information with each other due to confidential business information (CBI) and security concerns. One of the commenters suggested that EPA update the regulatory text to make an allowance for instances where neighboring facilities do not cooperate in the siting evaluation.

A couple of commenters stated that it is impracticable for EPA to require existing facilities to move processes to comply with any new siting requirements. The commenters suggested that EPA clarify that these requirements do not apply to existing facilities. One commenter stated that imposing new siting requirements after a facility that has been established would raise fundamental fairness issues, as well as possible regulatory "takings" issues, potentially requiring compensation to the affected sources. One commenter noted that conducting a siting analysis is a significant undertaking for existing sources who do not have potential to cause offsite consequences. The commenter stated that it would be a costly and arduous undertaking to determine exactly what facilities are proximate and understand their internal operations.

One of the commenters noted that the proposed requirements should be narrowly interpreted to preserve local zoning authority. Another commenter mentioned that neither the facility nor EPA have any authority or control over local zoning ordinances that may have allowed development within an area that EPA's new criteria may deem to have inappropriate buffers or setbacks. Another commenter stated that the facility siting provision could negatively affect where facilities could be built, depending on the distance between a facility process and offsite populations. The commenter encouraged EPA to consider a policy restricting outside populations from building close to a facility which could interfere with real estate plans and impact local building regulations.

ii. EPA Responses

EPA agrees that amending the regulatory text to make more explicit the requirement that process hazard evaluations for both Program 2 (hazard review) and Program 3 (PHA) include in the siting evaluation the placement of processes, equipment, buildings, and hazards posed by

proximate facilities, and accident release consequences posed by proximity to the public, will help ensure the protection of human health and the environment. As discussed in the proposal, siting of processes and equipment within a stationary source can impact the surrounding community, not only through the proximity of the accidental release to offsite receptors adjacent to the facility boundary (e.g., people, infrastructure, environmental resources), but also through increasing the likelihood of a secondary ”knock-on” release by compromising nearby processes. The proposal offered several examples of accidental releases which illustrate the significant effects of the lack of sufficient distance between the source boundary and neighboring residential areas.

In response to comments that EPA should require implementation of stationary source recommendations, EPA notes that, at this time, the Agency is only choosing to make more explicit what is required to be addressed in a stationary source siting evaluation. Rather than propose additional requirements, EPA is instead expounding on the current regulatory text to ensure that siting evaluations properly account for hazards resulting from the location of processes, equipment, building, and proximate facilities, and their effects on the surrounding community. EPA continues to believe the performance-based nature of both this provision and the overall rule allow facility owners and operators the discretion to determine what risk reduction measures work best for their particular chemical use, process, or facility. Furthermore, EPA disagrees with comments that implementing the facility siting requirements would create the opportunity for inconsistent enforcement between EPA and OSHA. The OSHA PSM standard and RMP rule both require that facility siting be addressed as one element of a PHA (29 CFR 1910.119(e)(3)(v) and 40 CFR 68.67(c)(5)). In response to comments on the proposed PSM rule, OSHA indicated that facility siting should always be considered during PHAs and

therefore decided to emphasize this element by specifically listing siting evaluation in regulatory text.[68] EPA's approach to the siting requirement is consistent with its general approach to PSM in the 1996 RMP rule: sound, comprehensive PSM systems can protect workers, the public, and the environment.[69]

In response to the comments regarding the definition of "proximate facilities" and CBI, EPA notes that the provision is for facility owners and operators to be aware of and consider the apparent presence of facilities within release impact zones that could occur from their facility, and how those releases would be affected because of the presence of nearby facilities. While EPA encourages sharing of chemical and process information between facilities, particularly for emergency response purposes, EPA does not believe this is required in order to comply with the provision. Nevertheless, when conducting siting evaluations, EPA would reasonably expect sources to consult publicly accessible information on nearby sources, such as RMPs and information available through LEPCs. This type of information is not CBI.

EPA disagrees that it is impracticable to require existing facilities to comply with siting requirements. EPA notes that there is a breadth of guidance on siting, and the Agency therefore believes there is adequate information available for facilities to comply with the text in this final rule. EPA expects facilities to continue to use available resources and any additional industry-specific guidance to properly evaluate siting hazards. The rule does not mandate that existing sources modify their footprint as a result of a siting analysis. The approach taken in this rule is similar to how hazard evaluations have proceeded in the past: require the analysis of hazards and

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[68] OSHA, *Final Rule on Process Safety Management of Highly Hazardous Chemicals; Explosives and Blasting Agents*, 29 CFR part 1910 (1992), *https://www.osha.gov/laws-regs/federalregister/1992-02-24.*

[69] 61 FR 31687; June 20, 1996.

rely upon owners and operators to use the information reasonably when determining what measures should be undertaken. The Agency also notes that Program 1 processes are not covered by this requirement; Program 2 and 3 sources subject to this requirement will have undertaken offsite consequence analyses and determined that they may have offsite impacts that disqualify them from Program 1. Finally, while EPA has in the past discussed the potential for requiring minimal setbacks and other specific location restrictions, notwithstanding local zoning, the siting requirement in this rule does not contain such a restrictions on location.

d. Hazard Evaluation Information Availability

EPA's Proposed Approach

i. Comments

Several commenters expressed support for EPA's proposed hazard evaluation information availability requirements. One commenter stated that failing to finalize the proposal would be arbitrary and capricious because owners and operators can continue to ignore recommendations from hazard evaluations with no justification, even if the recommendations are feasible and effective. One commenter strongly supported EPA's decision to require RMP facilities to report declined recommendations in hazard evaluations but also suggested there should be a baseline checklist of natural hazard mitigation measures. A couple of the commenters noted that facilities should be required to implement practicable recommendations.

Several commenters expressed concern that there is no reasonable explanation for requiring the reporting of rejected recommendations. A few commenters mentioned that the proposed requirements are unnecessary because this information is already documented as part of the PHA or Layers of Protection Analysis (LOPA) and adding it to the RMP only produces double documentation without added benefit. Some commenters mentioned that EPA did not

consider the labor costs and time that would be devoted to preparing a written justification for rejected recommendations. One of the commenters stated that the time and resources could be better spent on implementing accepted recommendations. A few commenters suggested that there is no evidence that requiring individual facilities to provide such documentation will reduce accident rates and may lead some to believe that it is possible to eliminate all risks, including potential risks, which could lead to a release.

Some commenters noted that the requirement will likely cause facilities to consider a narrower scope of recommendations to avoid making this exercise more burdensome. Similarly, one commenter expressed concern that the proposed requirement will discourage facility leaders from pushing their PHA/LOPA teams from identifying unmitigated hazards to limit the amount of information they are required to report to EPA. Another commenter recommended that EPA make clear that an appropriately justified denial during initial review of a facility's RMP plan should not have to be re-justified in subsequent reviews of the plan.

ii. EPA Responses

EPA believes that finalizing the hazard evaluation recommendation information availability provisions will enable the public to ensure facilities have conducted appropriate evaluations to address potential hazards that can affect communities near the fenceline of facilities. At this time, EPA is not requiring facilities to implement practicable recommendations from natural hazard, power loss, and siting hazard evaluations, as long as facilities list in their risk management plans the recommendations that were not implemented and the justification for those decisions. EPA disagrees that the requirements are unnecessary and provide no benefits. EPA believes the requirements are important to help the public understand how facilities address the hazards that may affect their community to keep the risk at or below an "acceptable level,"

which include adherence to RAGAGEP, and the reasonable judgments and efforts of compliance programs aimed at preventing or mitigating accidental releases. In response to comments that requiring such documentation will not reduce accident rates, EPA believes that when local citizens have adequate information and knowledge about the risks associated with facility hazards, facility owners and operators may be motivated to further improve their safety performance in response to community oversight. At a minimum, better community understanding of identified hazards and remedies not implemented will promote better community emergency planning.

In response to comments that EPA did not consider the costs of preparing written justifications for rejected recommendations, EPA notes that the RIA for the final rule estimates anticipated costs for preparing written justifications.

In response to the comments that the requirement will discourage facilities from considering recommendations and identifying unmitigated hazards, EPA notes that the hazard evaluation requirements for Program 2 (40 CFR 68.50) and Program 3 (40 CFR 68.67) processes remain unchanged – to identify, evaluate, and control hazards involved in the process, assuring the recommendations are resolved in a timely manner. When facilities fail to conduct these activities, they will not be in compliance with the hazard evaluation provisions. EPA believes the flexibility permitted in hazards evaluations, that is, allowing facility owners and operators to choose which recommendations will be implemented, is the best approach for exercising reasonable judgement to determine what risk reduction measures work best for their particular chemical use, process, or facility. However, EPA views choosing to leave hazards unaddressed out of fear of public scrutiny as not exercising reasonable judgement, particularly when it may leave the process more vulnerable to accidental releases.

Methods to Provide Justification

i. Comments

A few commenters expressed support for using categories, such as those in OSHA's 1994 Compliance Directive[70], for declining to adopt a PHA recommendation. One of the commenters noted that requiring owners and operators to choose one of four pre-selected categories makes it easier for owners and operators to understand and comply with their duties. The commenter suggested that EPA should not include alternative categories or a catch-all "other" category because doing so would dilute the purpose of the amendment by allowing facilities to decline recommendations for potentially insufficient reasons. Another commenter expressed concern that the list of possible natural hazards, loss of power, and siting evaluation recommendations that might not be adopted could be expansive; therefore, the commenter suggests EPA should provide specific categories of recommendations for facilities to choose from when reporting.

One commenter recommended that the information be presented in a public and easily accessible space across many different sites and locations. Similarly, another commenter suggested that owners of RMP facilities should be obligated to post hazard-related information online and provide a link in risk management plans so responders and local communities can access this information.

A commenter recommended that EPA require owners and operators to include not only documentation that one of the four justifications is met, but also a narrative explaining how the documentation shows that the justification has been met. Conversely, another commenter noted that requiring covered facilities to provide declined hazard evaluation recommendations in

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https://www.osha.gov/sites/default/files/enforcement/directives/CPL02-02-045_CH-1_20150901.pdf

narrative form is an unnecessary intrusion into internal practices at a facility that does not improve that facility's safety.

One commenter noted that the proposed requirement for selection of "preselected categories" does not appear in the proposed regulatory text and recommended that if EPA intends to make the use of these categories mandatory, it must put them into the regulatory text. The commenter also noted that these categories are good conclusions for internal facility evaluations that assess complex considerations, but they provide little to no useful information to LEPCs and local communities.

ii. EPA Responses

EPA agrees that requiring owners and operators to choose one of four pre-selected categories makes it easier for owners and operators to understand and comply with their duties and is thus finalizing this component in the rule. EPA is not requiring narrative explanations to be reported as there is concern that such explanations may be greatly inconsistent as they would require large amounts of technically challenging and varying information to be comparably condensed. The Agency believes the four pre-selected categories ensures a balanced approach to providing beneficial data to the public as well as a straightforward method of reporting for facility owners/operators. While EPA is not adding the categories to the regulatory text, EPA will plan to revise its online RMP submission system, RMP*eSubmit,[71] to include the categories[72], similar to the those in OSHA's 1994 Compliance Directive, which will mimic the approach for other data components required by 40 CFR 68.170 and 40 CFR 68.175. Sources will therefore be able to update their RMPs with the information once the additional data field is

[71] *https://www.epa.gov/rmp/rmpesubmit*.

[72] These changes will be made to the submission system prior to the 4-year compliance date as described further in section IX.C.8. of this preamble.

incorporated into the system, and in accordance with applicable compliance dates. EPA also plans to update the RMP*eSubmit User's Manual[73] to provide guidance for entering declined recommendations and applying these categories to them.

B. Safer Technology and Alternatives Analysis (STAA)

1. Summary of Proposed Rulemaking

a. Definitions, 40 CFR 68.3

EPA proposed to define "inherently safer technology or design" (IST/ISD) to mean risk management measures that minimize the use of regulated substances, substitute less hazardous substances, moderate the use of regulated substances, or simplify covered processes in order to make accidental releases less likely, or the impacts of such releases less severe.

EPA also proposed definitions for "passive," "active," and "procedural" measures. EPA proposed to define "passive measures" as risk management measures that use design features that reduce either the frequency or consequence of the hazard without human, mechanical, or other energy input. EPA proposed to define "active measures" as risk management measures or engineering controls that rely on mechanical, or other energy input to detect and respond to process deviations. Lastly, EPA proposed a definition for "procedural measures" as risk management measures such as policies, operating procedures, training, administrative controls, and emergency response actions to prevent or minimize incidents.

Finally, EPA proposed to define "practicability" as the capability of being successfully accomplished within a reasonable time, accounting for technological, environmental, legal, social, and economic factors.

b. Process Hazard Analysis, 40 CFR 68.67

[73] *https://www.epa.gov/rmp/rmpesubmit-users-manual.*

EPA proposed to modify the PHA provisions by adding an additional paragraph (c)(9) to 40 CFR 68.67 to require that the owner or operator of a facility with Program 3 processes in NAICS codes 324 and 325 located within 1 mile of another 324 and 325 regulated facility process address safer technology and alternative risk management measures applicable to eliminating or reducing risk from process hazards. EPA proposed that "1 mile" be interpreted to mean "1 mile to the nearest fenceline" for a facility with a NAICS 324 or 325 process. EPA proposed to add paragraph (c)(9)(i) to specify that the analysis include, in the following order, IST or ISD, passive measures, active measures, and procedural measures. EPA also proposed that all facilities with 324 processes using hydrofluoric acid (HF) in an alkylation unit conduct an STAA for the use of safer alternatives compared to HF alkylation, regardless of proximity to another NAICS 324- or 325-regulated facility process.

EPA proposed to require owners and operators subject to the STAA provision to include an evaluation, including the results of the STAA analysis, as part of the PHA requirements in 40 CFR 68.67(e). In addition, EPA proposed to add paragraph (c)(9)(ii) to require that the owner or operator determine and document the practicability of the IST or ISD considered. This process would be separate and additional to the PHA requirements in 40 CFR 68.67(e). As part of this analysis, owners and operators would be required to identify, evaluate, and document the practicability of implementing inherent safety measures, including documenting the practicability of publicly available safer alternatives. Lastly, EPA proposed to add paragraph (c)(9)(iii) to require that a facility's STAA team include, and document the inclusion of, one member who works in the process and has expertise in the process being evaluated.

In addition to the proposed approach to STAA, EPA sought feedback on the industry understanding of the practicability assessment, and how this might differ from the findings

identified in the PHA, as well as the additional benefit of such a provision. EPA solicited comment on whether the Agency should only require the STAA as part of the PHA, without the additional practicability assessment. EPA also sought comment on other alternative approaches considered. One approach was applying STAA requirements to facility processes in NAICS codes 324 and 325 with a reportable accident within the last 5 years. Another approach was applying these provisions to all NAICS codes 324 and 325 facility processes. Lastly, EPA sought comment on whether the Agency should require implementation of technically practicable IST/ISD and STAAs.

c. STAA Technology Transfer, 40 CFR 68.175(e)(7)

EPA proposed to add 40 CFR 68.175(e)(7) to require owners or operators to report whether their current PHA addresses the STAA requirement proposed in 40 CFR 68.67(c)(9), whether any IST/ISD was implemented as a result of 40 CFR 68.67(c)(9)(ii), and if any IST/ISD was implemented, to identify the measure and technology category.

2. Summary of Final Rule

As discussed below, the final rule adopts three measures related to STAA: a broad requirement to conduct a STAA applicable to two sectors, petroleum refining (NAICS 324) and chemical manufacturing (NAICS 325); a requirement to conduct a practicability assessment for IST / ISD for a subset of facilities with processes in these sectors (co-located sources within 1 mile, refinery HF alkylation processes, and those that have had a reportable accident within the 5 preceding years); and a requirement for the same subset of facilities to implement at least one practicable passive measure or similarly protective active or procedural measure(s) after each STAA. These measures also are severable from each other. Even without a mandate to implement any measures resulting from an STAA or to conduct a formal, documented

practicability assessment, an owner or operator of a facility may identify and decide to implement new prevention measures resulting from the STAA. Similarly, even without a requirement to implement practicable IST / ISD measures or conduct a broader STAA review, a practicability assessment may lead to the adoption of an IST or ISD at the subset of sources required to conduct such an assessment. Finally, the requirement for a subset of sources to implement a passive measure or an equally protective active measure(s) or procedural control(s) does not depend on whether an IST/ISD practicability assessment was performed or whether the broader industry is performing a STAA. While each of these measures relate to STAA generally, they are distinct regulatory requirements of value independent of each other.

The Agency acknowledges that, prior to this final rule, EPA has not made implementation of any IST/ISD or any measure identified in a STAA either a preferred option at proposal or an adopted requirement in a final rule. Our prior rulemakings have discussed our policy view of the merits of requiring implementation. Our prior decisions have not questioned what we view to be clear on the face of the statute: that the CAA authorizes EPA to require implementation of IST/ISD and other STAA measures. As discussed below (section V.B.3 – Hydrogen fluoride), both subparagraphs (A) and (B) of CAA section 112(r)(7) authorize requiring implementation of safer technologies, and as discussed in the "safeguard implementation" section, EPA has appropriately justified our change in our view of the policy merits of the requirement promulgated today. The 2017 Amendments rule, the 2019 Reconsideration rule, and the 2022 SCCAP Proposed rule all had vigorous discussion of the merits of implementing STAA throughout the rulemaking process, and the 2019 SCCAP Proposed rule solicited comment on whether implementation should be required. Therefore, sources were on notice that the decision was an open matter and any reliance that we would not

adopt an implementation requirement in response to comments and data was not reasonable. Moreover, to the extent sources relied on our preferred option regarding implementation at proposal, EPA believes the compliance period is adequate to allows sources to meet the rule requirements.

Based on comments on both the proposed options and the alternative approaches presented, EPA is finalizing the proposed provisions for STAA with the following modifications:

- Revising 40 CFR 68.67(c)(9) to expand the STAA evaluation to all regulated facilities with Program 3 processes in NAICS codes 324 and 325.
- Revising 40 CFR 68.67(c)(9)(ii) to expand the IST/ISD practicability assessment to regulated facilities with Program 3 processes in NAICS codes 324 and 325 that also have had at least one RMP-reportable accident under 40 CFR 68.42 since the facility's most recent PHA.
- Adding 40 CFR 68.67(h) to require implementation of at least one passive measure at an applicable facility, or an inherently safer technology or design, or a combination of active and procedural measures equivalent to or greater than the risk reduction of a passive measure.

3. Discussion of Comments and Basis for Final Rule Provisions

a. General STAA Provision Comments

STAA as Part of PHA.

i. Comments

A couple of commenters stated that they support EPA's proposal that owners and operators of RMP-covered facilities be required to include consideration and documentation of the feasibility of applying safer technologies and alternatives in their PHAs. One of the

commenters noted, however, that only doing STAAs within the PHA will limit the effectiveness of the evaluations, and therefore, STAA should be evaluated within the PHA process as well as outside of the PHA in a separate study to evaluate each existing process.

Some commenters expressed opposition to EPA requiring a mandatory STAA component in the PHA. A few commenters noted that mandating a full IST or ISD review would require a completely different PHA team, extensively increase the time and resources necessary to complete a PHA, require the PHA team to perform hazard assessments of ever-changing technology they may not be familiar with, and dilute a PHA's core purpose.

One commenter noted that the proposed rule's STAA requirements do not acknowledge the value of the PHA risk assessment function. Another commenter stated that the analysis of passive measures, active measures, and procedural measures already occurs as part of the PHA, as required by 40 CFR 68.67(c)(3)-(4) and (6)-(7), and no modification of the current regulations is thus required to ensure that this analysis occurs. The commenter added that STAA requirements will detract from and reduce the effectiveness of PHAs as it will divert resources from PHA processes that are currently working well at regulated facilities. The commenter noted the effectiveness of a PHA depends heavily upon the availability of high-quality process safety information (PSI), yet the proposed rule provides no direction on how the PHA team is to assemble the PSI needed to perform the STAA. The commenter explained that facilities would not normally have information about processes not in use there. The commenter added this detracts from the PHA focus on existing facility processes and potentially reduces the effectiveness of the analysis.

ii. EPA Responses

EPA believes that STAA analysis can be incorporated in the existing RMP PHAs by using PHA techniques such as the Hazard and Operability Study, What-If? Method, checklists, a combination of these, or other appropriate equivalent methodologies. (See 40 CFR 68.67(b)). These techniques themselves are not requirements, but tools available to help the facility owner or operator to identify, evaluate, and control the hazards involved in the process. The Agency also notes that, when EPA previously considered an IST requirement, commenters noted that "PHA teams regularly suggest viable, effective (and inherently safer) alternatives for risk reduction," and EPA observed that "good PHA techniques often reveal opportunities for continuous improvement of existing processes and operations" (61 FR 31699-700).

Therefore, EPA agrees with commenters expressing support for including a STAA in the PHA and disagrees with commenters that argue it is not appropriate to include a STAA in the PHA. In fact, the RMP PHA requirements include other aspects of analysis that are typically associated with process design. For example, the PHA must also address stationary source siting issues, which involve the location and proximity of the source relative to local populations.

Nevertheless, EPA agrees that for situations where a STAA involves a novel process that is entirely different from the current process, the process design must exist or be developed within the industry, and PSI be compiled, to conduct a PHA for this new process. EPA does not expect facility owners or operators to research and create new processes or conduct research into all possibilities for the use of new chemicals. Instead, the STAA should focus on the industry known and existing substitute processes and chemicals that have been demonstrated to be safe in commercial use.

If a facility is considering an IST chemical substitution or process change from their STAA that involves a significant redesign of their process, such efforts involved with redesign

and its evaluation may need to be undertaken as part of a practicability study. The definition of practicability allows for consideration of technological factors, which could include whether the potential safer alternative can be designed and operated to meet the process functions needed. However, not all IST involves substituting a chemical or an entirely new process. Also, there are other types of IST measures (minimization, moderation or simplification) that can be considered to address various points within the current process where hazards and risks exist.

Facilities may, if desired, conduct a separate STAA analysis of each entire process, outside of the PHA process, as long as it is done in the same timeframe as the PHA, and the results are documented. If a facility does not have staff capable to identify and evaluate alternatives, the facility owner or operator may obtain outside assistance from engineering firms or consultants. Furthermore, the Agency has accounted for the technical capabilities of facilities in the sectors targeted for STAA when determining reasonable requirements that provide for the prevention of accidents to the greatest extent practicable.

Due to the performance-based approach of the current RMP PHA requirements at 40 CFR 68.67(c)(3), to identify, evaluate, and control the hazards involved in the process, EPA believes some facilities may have already performed a STAA-type analysis as part of their PHA. If the facility has already performed such STAA analysis in the past, then the owner or operator should consider these analyses when updating or revalidating their PHAs and determine whether there is new information that should be considered as part of conducting the current STAA.

Costs and Benefits of Implementing STAA as part of PHA

i. Comments

A couple of commenters stated that the STAA provisions would not be cost-effective. The commenters stated that the STAA represents 70 percent of the total costs EPA estimated

apply to the proposed rule. The commenters noted that the proposed STAA requirement is solely for consideration of possible alternatives and has unproven and unquantified benefits that do not justify the annual cost of $51.8 million. One of the commenters added that EPA stated that they expect "some portion of future damages would be prevented through implementation of a Final Rule," but they did not identify any benefits specifically tied to the STAA provision. The commenter stated that there is consensus on the theoretical value of STAA as a tool to inform future investment decisions and said that once a facility has committed to a particular production technology, STAA is not particularly useful nor informative. In contrast, another commenter stated that the costs of transitioning to safer alternatives are not sufficiently weighed against the costs of a major incident. The commenter provided an example that indicates that safety improvements could avoid major incidents costing owners $220 million on average. The commenter also noted that this figure does not include costs to society, such as human lives, economic stress, and health care and emergency service costs.

ii. EPA Responses

EPA disagrees that the benefits of the STAA requirements do not justify the costs. EPA believes that the STAA should identify potential IST process changes that, if implemented, would result in owners or operators using less hazardous substances, minimizing the amount of regulated substances present in a process, moderating process conditions and reducing process complexity. The STAA also should identify potential passive, active, or procedural safeguards that, when implemented, will result in changes to make processes safer. Such changes help reduce the prevalence of higher risk processes and thereby prevent accidents by either: (1) Eliminating the possibility of an accidental release entirely, by making a process more fault-

tolerant, such that a minor process upset, or equipment malfunction does not result in a serious accidental release; and (2) reducing the severity of releases that do occur.

RMP accident data show past accidents have generated highly variable impacts, so the impacts of future accidents are difficult to predict. Nevertheless, it is clear from RMP accident data[74] and other data from RMP regulated industry sectors,[75] that chemical accidents can impose substantial costs on firms, employees, emergency responders, the community, and the broader economy. Because major and other concerning RMP accidents continue to occur, by lowering risk of accidents, the benefits include: reductions in the number of fatalities and injuries both onsite and offsite and residents evacuated or otherwise inconvenienced by sheltering in place; reductions in the damage caused to property onsite and offsite of the facility including damages to product, equipment, and buildings; reductions in damages to the environment and ecosystems; and reductions in resources diverted to extinguish fires and clean up affected areas. Preventing serious accidents avoids numerous direct costs, including worker, responder, and public fatalities and injuries, public evacuations, public sheltering in place, and property and environmental damage. It also avoids indirect costs, such as lost productivity due to lost or damaged property and business interruption both onsite and offsite, expenditure of emergency response resources and attendant transaction costs, and reduced offsite property values. Actions that prevent or reduce the severity of accidents in RMP-covered processes are also likely to prevent or mitigate non-RMP accidents at the same facilities because the same or similar actions can be taken for processes and equipment not subject to the regulation, often at minimal additional cost.

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[74] EPA estimated monetized damages from RMP facility accidents of $540.23 million per year.

[75] Marsh JLT Specialty, "100 Largest Losses in the Hydrocarbon Industry," 27th Edition, March 2022. Accessed from https://www.marsh.com/uk/industries/energy-and-power/insights/100-largest-losses.html. Marsh provides estimates of large property damage losses in the hydrocarbon industry from 1974 to 2021 in current and 2021 dollars and in a few cases, business loss costs.

Further, for IST/ISD practicability and implementation of certain measures, EPA recognizes facilities will most likely implement IST/ISD when an IST/ISD's net cost is less than a passive measure's cost. The Agency assumes owners and operators will likely explore specific benefits to their facility when making decisions and expects the evaluation to consider several factors, such as:

- Operating and Maintenance (O&M) cost – IST/ISD may have a change in O&M costs compared to passive measures. For example, chemicals used in the process may change, which could cause changes in recurring input costs, including potentially lower those costs.
- Productivity improvements – IST/ISD could result in productivity improvements from more efficient process and changes to input costs.
- Safety improvements – IST/ISD may reduce risks of an accident more than would a passive-equivalent measure. A lower accident risk will result in facility safety benefits and social benefits from fewer accidents.
- Capital/facility reduced losses – Similar to safety, a lower accident risk will reduce losses to capital as well as shorter than expected facility shutdown time from accidents.

These facility specific factors will further help owners and operators justify identify facility-specific benefits associated with the costs to comply with this provision. EPA continues to believe the performance-based nature of both this provision and the overall rule allow facility owners and operators the discretion to determine which IST/ISDs and passive, active and procedural safeguard measures work best for their particular chemical use, process, or facility and for protecting the community potentially affected.

EPA disagrees that the benefits of the STAA requirements are unproven. Since 1996, EPA has seen that advances in ISTs and safer alternatives are becoming more widely available and are being adopted by some companies. Voluntary implementation of some ISTs has been identified through surveys and studies and potential opportunities have been identified through EPA enforcement cases and the U.S. Chemical Safety and Hazard Investigation Board (CSB) incident investigations. As discussed in the 2017 amendments rule (82 FR 4645; Jan. 13, 2017), the Contra Costa County Health Services and New Jersey Department of Environmental Protection (NJDEP) IST regulations have resulted in some facilities adopting IST measures.

EPA disagrees that STAA is not useful or informative for facilities that have committed to a particular production technology. Innovations and research in chemical process safety have evolved and continue to evolve. For those facilities who have not considered adopting any IST or have only done so in limited fashion, EPA believes that there is value in requiring facilities with regulated substances to evaluate whether they can improve risk management of current hazards through potential implementation of ISTs or risk management measures that are more robust and reliable than ones currently in use at the facility. For those facilities who have already considered IST, EPA believes facilities should re-evaluate whether any improvements in hazard or risk reduction can be made.

In response to the comment that EPA did not identify any benefits specifically tied to the STAA provision, EPA was able to qualitatively judge that the risk reduction from STAA implementation[76] reasonably justified the costs. In principle, the STAA eliminates or minimizes the opportunities for a chemical release because identification and implementation of "safer" technologies and alternatives, should result in a hazard or risk reduction for a particular RMP

[76] This is further discussed in greater detail in Chapter 6 of the RIA.

chemical or process. EPA recognizes that neither IST nor other procedural, active, or passive measures alone will eliminate all hazards or risks and that reliance on a combination of risk reduction measures will probably be needed for other points in a process.

Hydrogen Fluoride

i. Comments

Some commenters were concerned that the proposed rule leaves the continued use of HF up to owners/operators. A few commenters urged EPA to strengthen the proposed rule by requiring facilities to switch from HF or other acutely toxic substances to a safer alternative whenever feasible, since safer alternatives are available. One of the commenters noted the CSB's 2022 report recommendations that HF in remaining alkylation units in the U.S. be eliminated and replaced, if necessary, with less hazardous chemicals that are consistent with ISD. One commenter requested that safer alternatives to HF be implemented across all oil refineries in the U.S.

One commenter stated that the proposed rule was not comprehensive enough to adequately mitigate the inherent risks associated with using HF. The commenter stated that asking these facilities to merely consider switching from HF alkylation to safer alternatives and requiring them to include an STAA as part of their PHA was not enough to eliminate the inherent risk of having HF onsite. A couple of commenters recommended that the use of HF in refineries be banned. One of the commenters urged EPA to establish an aggressive timeline to phase out HF's use and said that further study is a waste of time. Another commenter contended that adding a larger scale ban of HF across all the oil refineries in the U.S. would safeguard millions of Americans from facing disaster in the event of an accidental release. Several

commenters stated that the history of HF use and accidents supported the idea that stronger EPA action was necessary to protect communities.

Several commenters stated a range of concerns regarding the dangers of HF. A few of the commenters specifically noted near misses or releases of HF and their associated harms and costs. One commenter noted the dangers of HF and the risks to communities, workforces, wildlife, hospitals, and first responders. Another commenter noted the risk of a catastrophic event caused not only by accidents and human error, but also from terrorism and natural disasters, which the commenter claimed cannot be mitigated. One commenter noted that earthquakes could cause the release of HF from refineries. One commenter noted the prevalence of refineries using HF near urban centers. Another commenter noted their concerns regarding the hazards of HF, specifically the dangers for nearby school children and a lack of emergency preparedness in schools.

Conversely, one commenter urged EPA not to advance requirements specific to HF alkylation units. The commenter claimed that EPA has no legal authority to mandate STAA on existing processes and that the proposed STAA requirements on all HF alkylation processes at petroleum refineries are arbitrary and unlawful. The commenter claimed that EPA did not provide a meaningful account of the benefits associated with this requirement, failed to state specifically how this requirement would fulfill any statutory requirements of the RMP, and has little or no data to support its proposal. The commenter further claimed that the data indicates that the industry is safely managing the risks with HF.

One commenter claimed that data show that HF alkylation processes are well managed by refiners. The commenter noted EPA's 1993 report on HF[77] and the continuous improvement of industry-developed HF management policy American Petroleum Institute (API) Recommended Practice 751, "Safe Operation of Hydrofluoric Acid Alkylation Units" (RP 751).[78] The commenter stated that RP 751 is recognized by OSHA and the CSB as providing effective guidance for the safe operation of HF alkylation units and management of HF catalyst. The commenter claimed that there have never been life-threatening injuries to people in surrounding communities stemming from HF-related incidents at refineries, which the commenter noted was because of multiple layers of mitigation technologies and emergency procedures. The commenter claimed that the benefits of STAA are flawed because the commenter noted that EPA failed to consider the measures taken at facilities that follow or audit against RP 751.

ii. EPA Responses

EPA notes that HF is an extremely toxic chemical used for alkylation at 27 percent of facilities in NAICS 324 (45 of 163). EPA is requiring that all HF alkylation processes at petroleum refineries (NAICS 324) conduct an initial STAA evaluation, a practicability assessment for IST/ISD, and implementation of at least one passive measure (or combination of active or procedural measures equivalent to the risk reduction of a passive measure), primarily due to recent incidents where HF was nearly released when there were explosions, fires, and other releases that could have triggered releases of HF. While API RP 751 offers industry

[77] EPA, *Hydrogen Fluoride Study, Report to Congress section 112(n)(6) Clean Air Act As Amended, https://nepis.epa.gov/Exe/ZyPDF.cgi/10003920.PDF?Dockey=10003920.PDF*

[78] API, *Recommended Practice 751* (2021*), https://www.api.org/oil-and-natural-gas/healthand-safety/refinery-and-plant-safety/process-safety/process-safety-standards/rp-751.*

guidance to help safely manage HF alkylation process and its hazards, those process hazards still exist. In contrast, there are recognized potentially safer chemical alternatives available for HF alkylation that have been successfully implemented by refineries, such as sulfuric acid alkylation, ionic liquid alkylation, or solid acid catalyst alkylation. These eliminate the hazard. With several known alternatives and with recent incident history, EPA believes the process of HF alkylation merits a rule-based prevention approach rather than only selective oversight. In response to the comments urging EPA to require facilities to switch from HF to a safer alternative whenever feasible, the practicability of these potentially safer alternatives is situation-specific, and owners and operators are usually in the best position to make these determinations.

EPA summarized its legal authority for the various provisions of this final rule in the preamble to the proposed rule, specifically identifying STAA as a prevention measure authorized under CAA section 112(r)(7) (87 FR 53563-64; Aug. 31, 2022). EPA's legal authority to require an STAA evaluation and implementation of reasonable STAA measures is well-established under both paragraphs (A) and (B) of CAA section 112(r)(7). In authorizing rules for the prevention of accidental releases of regulated substances, subparagraph (A) of section 112(r)(7) specifically allows for rules that address design, equipment, and operations while permitting EPA to distinguish among classes of facilities based on factors "including, but not limited to . . . location [and] process." This language authorizes EPA to put restrictions on and impose requirements for permissible design of a process and the types of equipment used as well as continuing operation of such designs and technologies. With respect to HF alkylation processes, not only does the statute authorize consideration of location when identifying classes to regulate, it also provides that EPA may consider the "potency of substances" when making distinctions among facilities that are covered by regulations under section 112(r)(7)(A). As discussed in the

proposed rule, HF is a particularly potent regulated substance. 87 Fed. Reg. 53576 (Aug. 31, 2022).

In addition to the authority granted by subparagraph (A), the authority in subparagraph (B) to develop "reasonable regulations [that] provide, to the greatest extent practicable, for the prevention and detection of accidental releases" authorizes reasonable regulations to mandate examination of potential methods to prevent releases, to examine the practicability of alternative designs and technologies, and to require adoption of release prevention measures when practicable. Many of the same terms appear in both subparagraph (B)(i) as in subparagraph (A) – the requirement to cover ongoing operations, the authority to recognize "differences in … operations, processes and class… of sources," while also granting authority to regulate "use" of regulated substances. Subparagraph (7)(B)(ii) authorizes rules to "minimize" accidental releases, which encompasses a mandate to implement practicable passive mitigation measures or their equivalent active and procedural measures. STAA is a "safety precaution" under the prevention program. CAA 112(r)(7)(B)(ii)(II).

As noted in the 2017 amendments rule (82 FR 4630; Jan 13, 2017), both the Conference Report for the 1990 CAAA[79] and the 1989 Senate Report related to the CAAA[80] provide substantial support for the concepts of STAA. The Conference Report included support for "a review of the efficacy of various prevention and control measures, including process changes or substitution of materials" (Conference Report pp. 340-41). Further, the Senate Report supported "release prevention measures" that contemplate IST and STAA (Senate Report p. 242). While neither the 1996 RMP rule nor the 2019 reconsideration rule required IST or STAA, neither

[79] H.R. Rep. No. 101-952 (1990) (Conf. Rep.).

[80] S. Rep. No. 101-228 (1989).

action based those decisions on a lack of authority under CAA section 112(r)(7) to require examination of safer alternatives at either existing or new processes.

Furthermore, in discussing the purpose of the chemical accident provisions, the Senate Report identified a preference for measures that promote safer technologies to those that merely mitigate or respond to releases (pp. 208-209):

> "Systems and measures which are effective in preventing accidents are preferable to those which are intended to minimize the consequences of a release. Measures which entirely eliminate the presence of potential hazards (through substitution of less harmful substances or by minimizing the quantity of an extremely hazardous substance present at any one time), as opposed to those which merely provide additional containment, are the most preferred."

The Senate Report is entirely consistent with a preference for the hierarchy of controls that forms the basis of STAA.

b. STAA Evaluation

Applicability

i. Comments

Several commenters recommended that EPA expand STAA requirements to cover more facilities. Some of the commenters highlighted that the proposed rule would only require approximately 5 percent of RMP facilities to conduct STAAs, which is a small subset of facilities. Some of the commenters suggested EPA require all RMP facilities to develop a hierarchy of hazard controls in sequence and priority order to eliminate risks of catastrophic releases. One commenter noted that EPA has failed to justify excluding any refineries, chemical manufacturing plants, pulp/paper mills, wastewater treatment, agricultural chemical or fertilizer plants, or thousands of other hazardous facilities where safer technologies are available.

One commenter claimed that there was no valid justification not to require a refinery or chemical manufacturer to assess IST and consider ways to operate more safely simply because it

was not within 1 mile of another refinery or chemical plant. The commenter claimed that the 1-mile radius restriction was unworkable as well as unjustifiable and that it was unclear how to determine the distance restriction. The commenter stated that a 1-mile radius restricted the likely impact area for severe hazards and releases from refineries and chemical plants especially for communities where there are many facilities within a 1-to-10-mile radius that can impact health, the ability of communities to evacuate, and the ability of first responders to assist. The commenter additionally noted that a hurricane, flooding, wildfire, or earthquake tended to have impacts greater than a 1-mile radius.

Several commenters stated that the use of the 1-mile distance from fencelines instead of process location is unreasonable as there are facilities that have processes hundreds of yards from their fenceline. The commenters suggested that this additional distance should be accounted for in this provision and requested that EPA use distances between the covered processes at the adjacent stationary source as opposed to fencelines.

A couple of commenters stated that STAA is inappropriate and cost-prohibitive for existing processes. These and other commenters urged that EPA should limit any STAA requirement to the design and development phases of new processes. A couple of commenters stated that the reasons different technologies are not implemented after a facility is already built are complex – ranging from chemical production or storage capability to life expectancy of operating equipment, capital expenditures, and market demands. Some commenters noted that EPA does not have the statutory authority under CAA section 112(r) to impose facility design requirements at any stage of a regulated facility's lifespan, much less for existing facilities.

A couple of commenters noted that the considerations of STAA would have little relevance among the diverse processes, formulations, and applications relevant to the fertilizer

industry, specifically. The commenters added that forcing companies to incorporate this ill-fitting approach in their PHAs would lead to higher RMP-compliance costs that would be passed on to farmers and consumers. One of the commenters further added these increased costs provide no benefit to the communities in which regulated facilities are located.

ii. EPA Responses

EPA agrees in part with commenters requesting that the applicability of the STAA provision be expanded to apply to more facilities compared to the requirements included in the proposed rule. In this final rule, EPA is expanding the initial STAA evaluation to all Program 3 facilities with NAICS 324 and 325 processes. EPA believes that high RMP accident frequency among NAICS 324 and 325 processes as shown by recent data[81] presented in the proposed rule, is reasonable justification for requiring RMP owners and operators to evaluate safer technologies and alternatives to help prevent accidental releases. As noted in the proposed rule, between 2016 and 2020[82], sector accident rates (unique facilities having accidents) for NAICS 324 and 325 were, respectively, seven times higher (23 percent, n = 41 out of 177) and two times higher (6 percent, n = 96 out of 1631) than the rate for all RMP-regulated facilities (87 FR 53578).[83] By

[81] Such data are also consistent with accident frequency data that formed part of the basis for the STAA applicability provisions in the 2017 Amendments rule. See 81 Fed. Reg. 13668-69 (March 14, 2016) (Amendments rule NPRM); 82 Fed. Reg. 4632-34 (January 13, 2017).

[82] Due to a lack of alternative data describing RMP accident impacts more comprehensively, EPA chose this five-year dataset to reflect the most recent trends regarding RMP accidents. EPA used the August 1, 2021, version of the RMP database to complete its analysis because under 40 CFR 68.195(a), facilities are required to report RMP accidents and specific associated information within six months to the RMP database. Therefore, the RMP database as of August 1, 2021, is expected to include RMP accidents and their specific associated information as of December 31, 2020. However, because accident data are reported to the RMP database by facility owners and operators, EPA acknowledges the likelihood of late-reported accidents affecting these last few years of data because some facilities may have not reported their RMP accidents as they are required to do. See sections 3.2 and 3.3 of the RIA for more on this and other limitations on the number and costs of baseline accidents.

[83] The list of these accidents and their details can be found in the Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs Under the Clean Air Act, section 112(r)(7); Safer Communities by Chemical Accident Prevention (April 19, 2022), Appendix A, *https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0065*. These accidents are specifically identified in Column BZ.

expanding applicability of the STAA evaluation to these additional NAICS 324 and 325 processes, EPA expects to also capture complex facilities in less facility-dense areas that nonetheless may cause significant harm to human health and the environment.

In response to the comment stating that EPA has failed to justify excluding any hazardous facilities where safer technologies or alternatives are available, EPA notes that it has provided justification for applying the STAA requirement to facilities with NAICS 324 and 325 processes and does not believe that the final provisions have been limited arbitrarily, or that the Agency's decision to limit applicability of the STAA provisions to the petroleum refining and chemical manufacturing sectors implies that other sectors do not have viable safer technology alternatives. EPA notes that sources involved in complex manufacturing operations have the greatest range of opportunities to identify and implement safer technologies, particularly in the area of inherent safety, because these sources generally produce, transform, and consume large quantities of regulated substances under sometimes extreme process conditions and using a wide range of complex technologies. Therefore, such sources can often consider the full range of inherent safety options, including minimization, substitution, moderation, and simplification, as well as passive, active, and procedural measures. Further, EPA notes that RMP facilities in the selected sectors have been responsible for a relatively large number of accidents, deaths, injuries, and property damage and have significantly higher accidents rates as compared to other sectors. The 5 percent of sources mentioned by the commenter, augmented by those refineries and chemical manufacturer sources that have had accidents in the past 5 years, are responsible for 42% of the total accidents from RMP-covered sources over the period from 2016-2020, and 83% of the accident damage. Concentrating the most demanding requirements on this subset of sources

recognizes the track record of heightened risk presented by these sources to their nearby communities.

While EPA is not requiring all Program 3 sources, or all sources in industry sectors where feasible safer technology alternatives have been identified to perform a STAA, the Agency encourages such sources to consider performing a STAA, and to determine practicability of IST or ISD considered, even if they are not subject to the STAA provisions of the final rule. EPA expects guidance for this provision and the data resulting from the STAA Technology Transfer described in section e. of this section will be useful for all facilities to adopt to identify potential IST/ISD and safeguards. As noted in the preamble of the 2016 proposed amendments rule, provisions in the existing rule provides several incentives to encourage the use of STAA and the adoption of safer technologies, including having applicability based on a chemical threshold, allowing a source to take credit for passive mitigation in calculating its worst-case scenario and both passive and active controls when calculating its alternative scenarios (81 FR 13663; Mar. 14, 2016). Consistent with EPA's general approach to the RMP regulations, the Agency allows flexibility for owners and operators to adopt various methods to meet performance standards, with more specific, demanding standards for sources that pose a greater likelihood of an accidental release and have greater complexity, and for sources that pose a greater risk to nearby communities.

In the final rule, the definition of the 1-mile radius is relevant to the applicability of the IST/ISD practicability assessment and safeguard implementation only. Acknowledging that refineries and chemical manufacturers have sector accident rates that are higher than the general rates for RMP-covered facilities, close co-location of sources in NAICS codes 324 and 325 further increases the risk to the public that may be potentially exposed to a release from multiple

sources. It is appropriate to increase the stringency and transparency of the requirement for so situated sources. Discussion of the application of the 1-mile criteria is later discussed in the Practicability Assessment and Safeguard Implementation sections of this preamble.

In response to the comments that the STAA requirement should be limited to the design and development phases of new Program 2 and Program 3 processes, EPA disagrees. While the greatest potential opportunities for using IST may exist early in process design and development, many IST options may still be practicable after the initial design phase. Furthermore, STAA involves more than just IST. Safer technology alternatives also include passive measures, active measures, and procedural measures, and these measures can be modified and improved after the initial design of a facility. EPA notes that while many RMP-regulated facilities were originally constructed decades ago, major enhancements have been reported in some plants that have been operating for many years. Moreover, to the extent that particular measures are cost-prohibitive, the rule allows for that to be a factor in assessing whether a measure is practicable.

The Agency disagrees with the comments that the CAA does not authorize the STAA provisions of this final rule. Both paragraphs (A) and (B) of CAA section 112(r)(7) authorize STAA and IST in particular. EPA cited all of section 112(r)(7) as authority for "[e]ach of the portions of the Risk Management Program rule we propose to modify" (81 FR 13646; March 14, 2016). The authority section for 40 CFR part 68 references CAA section 112(r) and is not limited to particular paragraphs. The proposed rule also noted that paragraph 112(r)(7)(A) had been invoked in the rulemaking petition on IST. Therefore, EPA provided sufficient notice that the Agency contemplated action under any authority under CAA section 112(r)(7). Nevertheless, EPA also views its authority to require STAA assessments or an IST review, or implementation of safeguards to reduce risk as being consistent with paragraph 112(r)(7)(B). Under paragraph

(B), EPA has authority to develop "reasonable regulations . . . for the prevention of accidental releases." The reduction in severity of conditions in a process plainly impacts the accidental release conditions and thus the modeling called for in section 112(r)(7)(B)(ii)(I). Moreover, section 112(r)(7)(B)(ii)(II) specifically mentions that prevention programs in risk management plans shall provide for "safety precautions;" STAA measures are a type of safety precaution. Finally, as noted above, the Conference Report for the 1990 CAAA and the Senate Report both demonstrate that Congress intended the regulations to prioritize STAA as a prevention measure.

With regard to comments relating to STAA requirements for the fertilizer industry, EPA is not requiring agricultural fertilizer retail facilities to perform a STAA, and thus there should be no burden to this particular industry as a result of the STAA provision. The STAA requirement in the PHA will only apply to Program 3 facilities in chemical manufacturing (NAICS code 325) and petroleum and coal products manufacturing (NAICS code 324).

c. Practicability Assessment

i. Comments

One commenter expressed support for EPA's proposal to require owners and operators to identify, evaluate, and document the practicability of implementing inherent safety measures, including documenting the practicability of publicly available safer alternatives. Another commenter stated that EPA should include the STAA practicability assessment as part of the PHA because such an assessment will provide additional context to the public, local officials, and emergency managers regarding a facility's consideration of risk management. The commenter added that the assessment should be used internally by the facility to plan future process and technology improvements to increase safety. One commenter urged EPA to move beyond just the assessment and reporting of safer technologies and require that facilities

implement the identified alternatives when practicable, working with employees and communities to do so expeditiously.

One commenter opposed the proposed new 40 CFR 68.67(c)(9)(ii) and stated that EPA should not adopt the proposed practicability assessment requirement. The commenter expressed opposition to any requirement to consider IST in existing processes at covered stationary sources. A couple of commenters questioned how EPA, focused on process safety, would be able to assess social and economic factors as part of the PHA STAA component. The commenters noted that the consideration of "social" factors extend far beyond the traditional, performance-oriented "process safety" scope of a PHA, presenting a conflict with the scope of the PHA required by the OSHA PSM standard. The commenters also noted that EPA's "practicability" definition and evaluation does not distinguish between technologies or practices that have been proffered in research papers or demonstrated in pilot plants versus at the large-scale facilities subject to the RMP and required to perform a STAA. The commenters emphasized that "real-world" technologies should be the focus of the STAA, not theoretical or possible technologies that have not been tested or tried at RMP-regulated sources.

ii. EPA Responses

In this final rule, EPA is expanding the applicability of the IST/ISD practicability assessment to apply to more facilities compared to the requirements included in the proposed rule. The IST/ISD practicability assessment will also apply to the owner or operator of a facility with Program 3 processes in NAICS codes 324 and 325 that has had an accidental release that meets the accident history reporting requirements under 40 CFR 68.42 since the facility's most recent PHA. As EPA noted in the 2019 reconsideration rule, a past accident is one of the best predictors of future accidents that could potentially threaten a facility's nearby community.

Additionally, as indicated in the proposal, of the 70 facilities experiencing 2 or more incidents between 2016 and 2020, 43 (60 percent) were in NAICS 324 and 325. The facilities required to conduct practicability assessments for IST/ISDs identified in the STAA accounted for 42% of all accidents and 83% of the cost of accidents among all RMP facilities during the period from 2016-2020.[84] A more in-depth look at implementation of IST/ISD by: (1) These facilities with accidents; (2) those identified in the proposal at facilities with processes in NAICS 324 and 325 located within 1 mile of another NAICS 324 or 325 facility; (3) and facilities with hydrofluoric alkylation, should lead to avoiding or reducing hazards at these facilities. At this time, EPA believes it is best to further focus the practicability assessment of IST/ISD on this subset of facilities as they present an even more heightened risk to a facility's surrounding community than other facilities with NAICS 324 and 325 processes.

EPA agrees that the practicability assessment will provide the public and local emergency managers with important context regarding a facility's consideration of safer technologies and alternatives. In response to the comment that the practicability assessment should be used by facilities to increase safety, EPA believes that the final rule will allow the owner or operator to consider the potential for risk reduction, risk transfers, and tradeoffs when determining whether it is practicable to implement ISTs or ISDs considered. IST is a relative concept dependent on the hazard, the technology, and the facility. Therefore, EPA is requiring facilities to only consider IST as a possibility for addressing hazards rather than requiring ISTs be implemented. The final rule will give the facility owner or operator the flexibility to assess and to determine the practicability of any measures considered based on various factors for IST (including those

[84] Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention: Final Rule. This document is available in the docket for this rulemaking (EPA-HQ-OLEM-2022-0174).

involving risk transference).

In response to the comment that EPA should require facilities to implement identified alternatives when practicable, in this final rule, EPA is requiring implementation of at least one passive measure at an applicable facility, or an inherently safer technology or design, or a combination of active and procedural measures equivalent to or greater than the risk reduction of a passive measure; further discussion of this requirement is below in the Safeguard Implementation section (V.B.3.d) of this preamble. EPA is not requiring implementation of identified IST. EPA believes facility owners and operators will adopt IST even in the absence of a mandate when it is practicable technically and economically and when the hazard reduction is significant. Part of the basis for this belief is the likelihood that most of the economic savings resulting from reduced accidents will be from reduced onsite property damage to the owner or operator's facility.

In response to the comment that the consideration of "social" factors extends far beyond the traditional, performance-oriented "process safety" scope of a PHA, EPA disagrees. While the PHA identifies the hazards, the RMP PHA requires the facility to identify the risk management measures applicable to eliminating or reducing the risks from the process hazards. EPA believes that it is appropriate for a facility to consider the five practicability factors (*i.e.,* economic, environmental, legal, social and technological) for evaluating the appropriateness of implementing for potential IST measures because some IST can involve significant costs or involve impacts that go beyond the facility. These factors are recognized and further discussed in in CCPS' 2019, "Guidelines for Inherently Safer Chemical Processes, A Life Cycle Approach,"

3rd edition, and NJDEP's Guidance for Toxic Catastrophe Prevention Act (TCPA), "Inherently Safer Technology (IST) Review," Attachment 1 "Feasibility guidance."[85]

In response to comments stating that "real-world" technologies should be the focus of the STAA, not theoretical or possible technologies that have not been tested or tried at RMP-regulated sources, EPA expects that facilities will only evaluate chemical substitutes that have already been shown to be commercially viable and does not expect facility owners or operators to expend a major effort on hypothetical or untested chemical substitutes or uses. This approach is consistent with EPA's authority to require reasonable regulations that prevent accidental releases to the greatest extent practicable.

In the final rule, the definition of the 1-mile radius is relevant to the applicability of the practicability assessment and safeguard implementation only. Acknowledging that refineries and chemical manufacturers have sector accident rates that are higher than the general rates for RMP-covered facilities, close co-location of sources in NAICS codes 324 and 325 further increases the risk to the public that may be potentially exposed to a release from multiple sources. In these sectors, the worst-case scenarios of 80 percent of sources extend at least 1 mile, therefore the communities surrounding these sources will typically face multiple threats. It is appropriate to increase the stringency and transparency of the requirement for so situated sources. In the proposal, EPA proposed to define facility location based on distance to the facility fenceline but sought comment on other definitions of facility proximity. Recognizing that the distance from a process is a more accurate way to calculate a release scenario than the distance from a fenceline, EPA will nevertheless retain 1 mile from the fenceline as the applicability criterion, as opposed to 1 mile from process locations, both for simplicity in

[85] *https://www.nj.gov/dep/enforcement/tcpa/downloads/istguidance_rev2.pdf*

implementation and also in deference to restrictions on source-specific information on release scenarios. The Agency believes that regulated facilities, the public, and implementing agencies can more easily calculate and verify a fenceline-to-fenceline measurement than a process-to-process measurement because it does not require access to facility-specific process information.

d. Safeguard Implementation

i. Comments

A couple of commenters recommended EPA require industries to seek out solutions that pose less inherent risk and danger to their employees and surrounding communities and that they implement all practicable alternatives that could eliminate risks of a catastrophic release. A couple of commenters urged EPA to require that facilities work with employees and communities to implement the identified alternatives when practicable. A few commenters called on EPA to add a requirement to implement recognized safer alternatives. One of the commenters stated that relying on voluntary measures alone does not satisfy the requirement of the Act for EPA to assure prevention "to the greatest extent practicable." The commenter noted the proposal is inconsistent with the CSB recommendation requiring both assessment and implementation of IST. One commenter claimed that relying on voluntary implementation alone is insufficient to protect fenceline communities who have seen nearby facilities repeatedly refuse to implement safer ways to operate, no matter how inexpensive or easy they may be. Because risks faced by nearby communities impose costs that are external to the firm, there is a market failure and firms do not face an appropriate level of incentive to reduce these risks. The commenter stated that voluntary measures cannot be relied upon given that market failure has delayed and prevented common-sense solutions. The commenter stated that, while the STAA, practicability assessment,

and justification report are all valuable and should be expanded and finalized, the rule should require the implementation of practicable IST through careful consultation with workers and worker representatives and community members.

Some of the commenters asserted that EPA does not have the statutory authority, under section 112(r) of the CAA, to impose facility design requirements at any stage of a regulated facility's lifespan, much less for existing facilities. Several commenters noted IST and ISD are in the best interest of facilities to implement where there are practical and effective; therefore, there is no reason to require it. The commenters also expressed concern over excessive costs to implement unnecessary technologies if required to implement inherently safer technologies.

The commenters urged EPA to allow facilities to decide what is best on a case-by-case basis due to instances where adopting an inherently safer process may not actually make a process safer when put into practice. One commenter added there are cases where there are no safer alternatives and conducting an STAA is not necessary, does little to improve safety, and creates extra complexity for employers to present a case to regulators for their processes. The commenter also said that regulations should be straightforward and easy to understand, so a vague requirement to require facility owners to present a case that their processes are safe will create confusion and not improve safety.

Some commenters noted that the proposed STAA requirement is solely for consideration of possible alternatives and has unproven and unquantified benefits that do not justify the annual cost of $51.8 million. One of the commenters added that EPA stated that they expect "some portion of future damages would be prevented through implementation of a Final Rule," but they do not identify any benefits specifically tied to the STAA provision. The commenter expressed concern that EPA did not review and summarize literature on STAA in the proposed rule since

there are a large amount of studies on its practical effectiveness; the commenter stated that there is consensus on its theoretical value as a tool to inform future investment decisions, and that once a facility has committed to a particular production technology, STAA is not particularly useful nor informative.

ii. EPA Responses

The CAA directs EPA to "promulgate reasonable regulations…to provide, to the greatest extent practicable, for the prevention and detection of accidental releases…" In some circumstances, solely relying on voluntary implementation of STAA measures is not reasonable and would be inadequate to prevent accidents "to the greatest extent practicable." This is particularly true when safeguards are identified and generally deemed practicable, but not implemented. A reasonable decision to not implement such safeguards at a facility must be supported with a comprehensive review of factors like cost, risk reduction, risk transfer, employee input, and engineering that concludes the technology is not practicable contextually. EPA's 2022 SCCAP proposed rule emphasized the importance of identifying "new risk reduction strategies, as well as revisit[ing] strategies that were previously evaluated to determine whether they are now practicable as a result of changes in cost and technology." Safer design and technology information and lessons learned are continually being generated, and facilities should integrate such updated information to help prevent accidents.

Taking an important step to reinforce these crucial factors, today's final rule is requiring processes subject to the IST practicability assessment to also implement at least one practicable passive measure resulting from the STAA evaluation. For this provision, practicable active and procedural measures or their combination can be implemented as a substitute to practicable passive measures if no practicable passive measures are identified or if they achieve layers of

protection equivalent to or greater than the risk reduction of passive measures. This provision is intended to reduce the risks of the accidental releases by requiring processes that EPA has identified to present a heightened risk to a community to implement reliable safeguards necessary to help prevent or mitigate chemical releases and their consequences; in particular, the provision requires RMP-regulated facilities with P3 processes: (1) In NAICS codes 324 and 325 located within 1 mile of another NAICS 324 or 325 facility; (2) in NAICS codes 324 and 325 that has had an accidental release that meets the accident history reporting requirements under 40 CFR 68.42 since the facility's most recent PHA; and (3) in NAICS 324 with hydrofluoric alkylation processes—to implement practicable safeguards that help prevent or mitigate chemical releases and their consequences.

The PHA requirements at 40 CFR 68.67 have always required sources to "identify, evaluate and *control* the hazards involved in the process." Currently the provision does not prescribe exactly which type or what measures must be implemented to control the hazards. In guidance, the Agency discusses how sources can resolve hazard evaluation recommendations after identifying and evaluating solutions to control hazards, stating that, "EPA does not require that you implement every recommendation. It is up to you to make reasonable decisions about which recommendations are necessary and feasible. You may decide that other steps are as effective as the recommended actions or that the risk is too low to merit the expense. You must, however, document your decision on each recommendation."[86] Guidance further indicates, "You may not always agree with your PHA team's recommendations and may wish to reject a recommendation. OSHA's compliance directive CPL 2-2.45A(revised) states that you may

[86] EPA, General RMP Guidance - Chapter. 6: Prevention Program (Program 2) (2004), pp. 6–11, *https://www.epa.gov/sites/default/files/2013-11/documents/chap-06-final.pdf*.

decline a team recommendation if you can document one of the following: (1) The analysis upon which the recommendation is based contains relevant factual errors; (2) the recommendation is not necessary to protect the health of employees or contractors; (3) an alternative measure would provide a sufficient level of protection; or (4) the recommendation is infeasible. For part 68, you may also decline a recommendation if you can show that it is not necessary to protect public health and the environment."[87] While EPA continues to believe that the source has the primary expertise and resources to weigh decisions on process design, process safety and accident prevention, EPA is concerned that controlling hazards and adopting reasonable safety measures and layers of protection necessary to keep the public and environment safe from chemical releases based on reasoned, documented decision-making do not always occur.

In two recent CSB accident reports, "FCC Unit Explosion and Asphalt Fire at Husky Superior Refinery,"[88] and, "Fire and Explosions at Philadelphia Energy Solutions Refinery Hydrofluoric Acid Alkylation Unit,"[89] the CSB addresses safeguards that should have been in place to prevent or mitigate major accidents at refineries. These cases highlight the consequences to workers and the surrounding community when sources do not take the necessary steps to implement safeguards to control known hazards.

On April 26, 2018, an explosion and subsequent fire occurred at Husky Energy's Superior Refining Company LLC refinery in Superior, Wisconsin (Husky). The incident occurred during a planned maintenance event when flammable hydrocarbons inadvertently mixed with air. As a result of the explosion and fire, 36 refinery and contract workers were

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[87] EPA, General RMP Guidance – Chapter 7: Prevention Program (Program 3) (2004), pp. 7-7, *https://www.epa.gov/sites/default/files/2013-11/documents/chap-07-final.pdf*.

[88] *https://www.csb.gov/husky-energy-superior-refinery-explosion-and-fire/*.

[89] *https://www.csb.gov/philadelphia-energy-solutions-pes-refinery-fire-and-explosions-/*.

injured and sought medical attention. The CSB found that Husky failed to properly implement safeguards that could have prevented the inadvertent mixing of air and hydrocarbons during the shutdown. The safeguards CSB identified, a steam barrier, gas purge, and slide valves, are typically vital to this type of process and are generally known and broadly applied within the refining industry. Not applying these safeguards allowed oxygen to enter and accumulate in process equipment containing flammable material, which ignited and exploded.

On Friday June 21, 2019, Philadelphia Energy Solutions refinery in Philadelphia, Pennsylvania (PES) had a release of propane and toxic hydrofluoric acid vapor from a ruptured pipe in the PES refinery alkylation unit. The vapor found an ignition source, causing a fire and multiple explosions. Five workers and a firefighter experienced minor injuries during the incident and response. The incident also resulted in estimated property damage of $750 million. The CSB determined the cause of rupture was from a piping component that corroded. CSB indicated that the absence of safeguards, remotely operated emergency isolation valves, and passive safeguards to prevent incident-induced damage to the water mitigation system, contributed to the severity of the incident.

As discussed in previous rulemakings, the hierarchy of control methods in an STAA analysis—IST/ISD, passive, active, procedural—systematically provides for the identification of practicable control methods. The Agency expects the STAA analyses to lead to new hazard control approaches at sources where management finds such approaches to be reasonable and practicable. The Agency acknowledges requiring facilities to implement IST can involve extensive changes to a facility's process, depending on the IST, especially if it involves substitution of alternative chemicals and/or major process redesign to existing processes. EPA believes that measures lower on the hierarchy of controls, passive, active and procedural

measures, when implemented appropriately, can be used to help operate a hazardous chemical process safely and can also reduce hazard risks of that process. When compared with IST, these measures could also more likely be added, modified, and improved after the initial design or operation of a facility.

Nothing in today's rule forces the adoption or abandonment of any technology or design. The mandate we adopt is limited to selecting additional mitigation periodically for specific processes so long as the risk of an impact release persists,[90] with a preference consistent with the well-understood hierarchy of controls.

EPA is requiring implementation of passive measures as a priority rather than active and procedural because it is the next highest level below IST on the hierarchy of controls and the most reliable in comparison to active and procedural safeguards, as they reduce risks without human, mechanical, or other energy input. As discussed in CSB's PES report, active safeguards that require a person or technology to trigger their activation have the potential to fail in major incidents involving fire or explosions, which was the case in the PES accident and could be a likely release scenario for flammable substances, which are regulated substances often present at refineries and chemical manufacturers.

EPA recognizes that passive safeguards may not exist or may not be practicable for a variety of reasons and other safeguards are needed to cover gaps in process safety risk reduction. EPA also recognizes that a passive measure may be even more effective when applied appropriately with other measures. This concept of layers of protection acknowledges that

[90] If passive mitigation or other adopted mitigation measures would be sufficient to change all NAICS 324 or 325 processes to Program 1, then the source no longer would have an obligation to add additional mitigation measures in future PHAs, as the mandate for safeguard implementation only applies to Program 3 processes. If the adopted mitigation measure is insufficient to meet Program 1 at all NAICS 324 and 325 processes at the source, then the potential for offsite impacts presenting risk would remain.

individual safeguards are not completely reliable or effective, and thus multiple safeguards ("layers") may be needed to minimize the chances of an initial fault propagating to a full-blown incident with potential for harm. This is often illustrated using the "Swiss Cheese" model for incidents. In this model, each safeguard layer has the potential to fail, with highly reliable safeguards (e.g., "inherent" ones) having relatively few "holes", and less reliable safeguards (e.g., "procedural") having more. While no single layer can adequately control the hazard, having enough adequately reliable safeguards can greatly reduce the chance of all of the "holes" lining up so that an incident actually occurs. This final rule will give the facility owner or operator the flexibility to assess and potentially implement IST, implement passive measures, or implement a combination of active and procedural measures to reduce risk associated with a process. The approach adopted today does not require a facility to implement a hazard reduction approach beyond what is to the greatest extent practicable among the reasonable options.

EPA acknowledges that because the requirement to control hazards has been a PHA requirement since the inception of the rule, some passive (or equivalent) safeguards to control hazards are likely already in place within facility processes. Facilities that have already implemented passive measures or an equivalent level of risk reduction should document their implementation in their next PHA, determine whether there is additional information that should be considered in their STAA, and continue to consider additional passive (or equivalent) measures during subsequent PHA re-validation cycles.

The Agency recognizes that requiring any implementation of STAA measures is a departure from both the 2017 amendments rule (82 FR 4648-49; Jan. 13, 2017) and the 2022 proposed rule and that the Agency identified reasons for not requiring implementation of any

STAA in the 2022 proposed rule (87 FR 53580; Aug. 31, 2022).[91] However, the 2017 amendments rule and the 2022 proposed rule primarily focused discussion on the reasonableness of mandating adoption of IST/ISD rather than passive, active, or procedural measures. For example, in 2017, EPA explained that one reason the Agency did not require implementation of IST/ISD is that a source may reasonably decide to employ more than one method of hazard reduction to address a hazard or that a given type of safer technology may not exist for a particular hazard point (82 FR 4649; Jan. 13, 2017); consistent with these observations, this rule allows a source to adopt layering active and procedural measures to achieve the equivalent risk reduction a passive measure would achieve and does not adopt a requirement for an IST/ISD at each hazard point. The Agency retains substantial flexibility for owners and operators to select among passive measures they deem appropriate for their stationary sources. The final rule allows for consideration of factors highlighted in the 2017 amendments rule like chemical formula specifications for toll manufacturers, the potential for risk transfer, supply chain limitations, and the need to address security implications of any change when assessing whether to reject particular passive measures. See 82 FR 4635-36 (toll manufacturers), 4643 (risk transfer), 4648 (supply chain), and 4649 (security).

The 2022 proposed rule contended that a requirement for implementation of IST/ISD or any measure was unnecessary because sources were likely to implement practicable measures when economically and technically reasonable and risk reduction would be significant. EPA partially based this contention on the observation that most of the economic savings from

[91] The 2019 Reconsideration Rule did not specifically discuss requiring or not requiring implementation of measures identified in a STAA because it more generally rescinded all prevention measures promulgated in 2017. With no requirement to perform an STAA, there was no need to assess whether implementation of measures identified in such an analysis needed to be implemented. The proposed rule and this final rule discuss the reasons for adopting a different broad approach to prevention than that adopted in 2019.

reducing accidents would accrue to the source itself (87 FR 53580; Aug. 31, 2022). However, not all damages accrue to the source responsible for the accident. For example, offsite impacts such as injuries, sheltering in place events, evacuations, environmental damage, and so on are experienced by people other than the regulated facility. Because these costs are external to the facility, there is a market failure, and firms do not have an appropriate level of incentive to prevent them. This market failure has been noted by commenters with respect to catastrophic events, the prevention of which is a primary purpose of enacting CAA section 112(r). Catastrophic events impose extensive burdens on people external to the source responsible for the accident. Moreover, these incidents are low probability, high consequence events that are difficult for owners and operators to assess; therefore, it may be unreasonable to rely primarily on sources to make the ultimate decision on whether to adopt any measures at all. The standard adopted in this final rule for sources presenting elevated risks to communities, wherein EPA mandates adoption of at least one passive measure at the facility, or an inherently safer technology or design, or a combination of active and procedural measures equivalent to or greater than the risk reduction of a passive measure, reasonably addresses the potential market failure that would lead to less implementation than would be necessary for risk reduction.

EPA disagrees with commenters indicating implementation of STAA measures has no proven benefits. A review of corrective actions following RMP accidents provides insight that practicable methods to address hazards are not infrequently found after accidents, which suggests the rule could be strengthened by providing incentives to implement those controls in advance of the accident. In reviewing RMP data from facilities subject to the practicability assessment and this STAA safeguard implementation provision (621 facilities), 59 percent of facilities indicated in their most recent PHA, some type of change was implemented. On average, 1.2 process safety

changes[92] were implemented because of the PHA, but of those facilities having accidents (16.8 percent), an average of 2.2 process safety changes were made after an accident occurred.[93] This review was one piece of evidence supporting EPA's reasoned judgment that the risk reduction benefits of the STAA implementation justified the costs. Therefore, as RMP facility process change data has shown, EPA expects there are benefits to make risk reduction changes through the PHA prior to an accident occurring.

In response to comments concerning costs for implementing STAA measures, EPA believes there is an overemphasis on initial costs leading to less consideration of safer, reliable methods to reduce process risks. CCPS' 2019, "Guidelines for Inherently Safer Chemical Processes, A Life Cycle Approach," discusses the tradeoff of initial and operating costs of implementing different STAA measures. CCPS indicates that while inherently safer and passive measures do tend to have higher initial capital costs, operating costs are usually lower than those for the other measures. For active measures as compared to inherently safer and passive measures, reliability is typically lower, and complexity is greater. Operating costs are also actually likely to be the greatest for active solutions. While procedural measures are most often tempting solutions due to their initial very low capital cost and typically lower complexity, they are often also the least reliable and should be considered only after other solutions have been explored. Similarly, EPA believes passive measures (or active/procedural equivalent) measures that reduce risk and are practicable should be implemented.

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[92] Changes include chemical reduction, chemical increase, change in process parameters, installation of process controls, installation of process detection, installation of perimeter monitoring, installation of mitigation systems, revised maintenance, revised training, revised operating procedures, or other changes not included in these categories. These change categories are those reported in RMPs under 40 CFR 68.175(e)(6).

[93] The list of RMP facilities whose most current RMP plans (as of December 31, 2020) were reviewed is provided in the docket for this rulemaking, EPA-HQ-OLEM-2022-0174, *RMP facilities in PHA_accident change analysis*.

The Agency is not requiring formal practicability assessments (as is now required for IST) for passive, active, or procedural measures. Since evaluation of passive, active and procedural measures have been a part of the RMP rule, leading to implementation of some, it is expected that the determination of their practicability already occurs. The Agency believes the requirement to determine what actions are to be taken in 40 CFR 68.67(e) suffices as a practicability determination for the less extensive upgrades or changes to the process as compared to IST. However, to ensure the assessment determining a measure is not practicable complies with the final rule definition, sources will be required to document this conclusion to the implementing agency's satisfaction; this requirement will help ensure costs alone are not the sole factor in determining practicability.

Finally, contrary to the assertion that the statute does not authorize regulations that impose design standards, the Agency notes that the statute explicitly provides the Administrator with the authority to promulgate "design, equipment, work practice, and operational requirements" in CAA section 112(r)(7)(A), as well as requirements for "preventing accidental releases of regulated substances, including safety precautions and maintenance" in CAA section 112(r)(7)(B)(ii)(II). The regulation promulgated in this final rule simply imposes standards on continuing safe operations and equipment. Furthermore, the regulations required by CAA section 112(r)(7)(B)(i), "shall cover the *use, operation*, repair, *replacement*, and maintenance of *equipment* to monitor, detect, inspect, and *control*" accidental releases of regulated substances as appropriate (emphasis added). Terms such as "use" and "operation" necessarily allow EPA to address ongoing activities and not simply the pre-construction phase, and "replacement" of "equipment" to "control" releases authorizes EPA to require upgrades to release prevention measure such as practicable passive control measures. As discussed above, the

Conference Report and the Senate Report provide ample support for requiring implementation of process and control measures to lessen the likelihood and impact of accidental releases.

e. STAA Technology Transfer

i. Comments

Several commenters supported EPA's proposed technology transfer provisions. A few commenters stated that EPA should require every RMP facility to routinely report the safer technologies/designs evaluated, implemented, or planned because, as proposed, 95 percent of RMP facilities will not report any solutions data. One of the commenters stated this will allow EPA to better assess the impacts of its own activities for promoting prevention of catastrophic releases. Another commenter suggested that this reporting occur as a regular part of semi-annual CAA compliance reports, and at a minimum, as a regular part of RMP reporting to EPA. One commenter stated that EPA should require the STAA-exempt 95 percent of RMP facilities to report whether they have evaluated IST/ISD and, if so, identify the major options evaluated, implemented, or planned. The commenter stated that this approach would be low cost, fill a major information gap, and yield invaluable insights. Another commenter supported expanding the technology transfer provision to cover more facilities and gather additional valuable information, including on wastewater and water treatment plants.

A couple of commenters opposed the submission of STAA findings as part of the STAA technology transfer section. One commenter noted that any submitted STAA findings would probably not consider the nuance of the real practicality of switching between technologies, and if facilities are not required to switch to alternate technologies, it is unclear how EPA intends to effectively use these data. Another commenter stated that EPA should not require reporting of STAA measures implemented in facilities' risk management plans because this requirement

would create significant potential for third parties to insert themselves into what is a highly technical and site-specific analysis. The commenter added that EPA does not provide a clear basis in the proposed rule for its assumption that reporting and public availability of information on IST/ISD measures implemented will improve facility safety or mitigate the potential for accidental releases in any measurable way; therefore, determining that reporting this information in the RMP is simply not justified.

ii. EPA Responses

EPA is requiring that basic information on IST, facility information, categories of safer design identified and implemented and causal factor for initiating safer design implementation be provided in the RMP submission in accordance with 40 CFR 68.175(e)(7). Facilities must provide in their RMP any IST/ISD measures implemented since the last PHA, if any, and the technology category (substitution, minimization, simplification and/or moderation). These technology transfer provisions apply to all facilities required to conduct any component of STAA (evaluation or practicability) under the final rule. This reporting is also voluntary for all other facilities, including deregistered facilities, by which EPA expects to capture useful information about how some facilities, on their own accord, choose to make their processes safer. EPA intends for this not to be a cumbersome exercise, but rather, one that is based on information facilities likely already have. The intended fields of check boxes, dates, and numbers that summarize STAA activities for this provision will help facilitate data analysis for EPA to compile and make available for other industries to identify safer alternatives.

EPA believes that the primary utility of STAA information for the public is to identify whether facilities are implementing IST and the nature of that change. In addition to information exchanged through an information request under 40 CFR 68.210, EPA encourages facilities to

provide information about any IST or other safer technology alternatives that the facility is using or could be using at the public meeting forum under 40 CFR 68.210 or any other community outreach opportunity. Facilities should expect that a community wants to discuss hazards and risks associated with their chemical processes. Effective communication with the public can be an opportunity to develop robust relationships with communities, and trust is gained when considering the needs and challenges facing those potentially affected by accidents. Additionally, as will be discussed further in the Information Availability section (VII) of this preamble, having information available to the public builds upon the planning approach of Emergency Planning and Community Right-to-Know Act (EPCRA) and Agency studies of the value of right-to-know in emergencies, and promotes accident prevention by facilitating public participation at the local level. The Agency expects a more informed and involved public to have less fear of the unknown.

C. Root Cause Analysis

1. Summary of Proposed Rulemaking

a. Definition of "Root Cause" in 40 CFR 68.3

EPA proposed to define "root cause" in 40 CFR 68.3 to mean a fundamental, underlying, system-related reason why an incident occurred.

EPA did not propose a definition of "near miss" as part of the proposed rulemaking. Nevertheless, EPA solicited comments on a potential definition of "near miss" that would address difficulties in identifying the variety of incidents that may occur at RMP facilities that could be considered near misses that should be investigated. EPA solicited comments on a universal "near miss" definition, as well as comments on strengths and limitations of the definition provided by NJDEP and how the definition may clarify requirements for incident

investigations. EPA stated that, based on these comments, EPA may propose a definition of "near miss" in a future rulemaking.

b. Incident Investigation/Root Cause Analysis, 40 CFR 68.60 and 68.81

EPA proposed to revise 40 CFR 68.60, which is applicable to Program 2 processes, and 40 CFR 68.81, which is applicable to Program 3 processes, by adding a new paragraph (h) which would require the owner or operator to investigate specific factors that contributed to an incident, for incidents that meet the accident history reporting requirements under 40 CFR 68.42. Proposed paragraph (h)(1) would require that a report be prepared at the conclusion of the investigation and completed within 12 months of the incident (though it allowed for facility owners or operators to request an extension from the implementing agency). Proposed paragraph (h)(2) would require specific factors to be investigated, including the initiating event, direct and indirect contributing factors, and root causes. Additionally, determination of root causes would be required by conducting an analysis for each incident using a recognized method.

2. Summary of Final Rule

EPA is finalizing the definition of root cause under 40 CFR 68.3 with modifications. Root cause will be defined as a fundamental, underlying, system-related reason why an incident occurred that identifies a correctable failure(s) in management systems and, if applicable, in process design.

EPA is finalizing the provisions of the incident investigation sections at 40 CFR 68.60(h) and 68.81(h) as proposed.

Although EPA solicited comments on a potential definition of "near miss," EPA is not finalizing a definition of "near miss."

3. Discussion of Comments and Basis for Final Rule Provisions

a. Definitions

i. Comments

Root cause. A couple of commenters expressed support for the proposed definition of "root cause." However, a commenter requested that if EPA determines that all incident investigations require a root cause analysis, EPA update the definition for "root cause" to remove the "system-related" and "in management systems" language. The commenter suggested that by focusing on system-related releases, EPA ignores that humans or environmental causes could be the cause of an incident. Conversely, another commenter suggested EPA revise the definition to state, "Root cause means a fundamental, underlying, system-related reason why an incident occurred that identifies a correctable failure(s) in process design and/or management systems."

Near miss. Several commenters supported the development of a definition of "near miss." Additionally, one commenter expressed a concern about selective enforcement in the absence of a clarifying definition, while another commenter said that without specificity to define a near miss, the language might have established due process concerns as the proposal failed to provide adequate notice to the regulated community. However, several commenters opposed the development of a definition for "near miss," stating that they oppose a definition due to the broad nature of facilities subject to the rule and that developing a definition would be difficult due to the context required to determine what a near miss is. Another commenter suggested that EPA provide guidance on near misses but allow facilities to determine their own definition. Additionally, several commenters opposed a universal definition of near miss, as a one-size-fits-all approach will be overburdensome and challenging for facilities to implement.

ii. EPA Responses

EPA is finalizing the proposed definition of "root cause" with modifications to include that the root cause must identify a correctable failure(s) in management systems, and if applicable, in process design. In finalizing this definition, EPA recognizes that an incident may have more than one root cause. EPA acknowledged in the proposal that the CCPS root cause definition identified that a root cause includes a correctable failure in management systems. EPA intended to use CCPS' definition in its entirety due to its wide use among the process safety industry. As such, EPA will include management systems as a correctable failure that must be identified when determining root causes for incident investigations. EPA also believes adding process design to the definition of root cause is useful as process design points to a specific management system failure that may offer facilities an opportunity to design their process more safely.

EPA did not propose a definition of near miss in the proposal. However, EPA will consider these comments when determining whether to develop a regulatory definition of "near miss" to identify incidents that require investigation in a future action.

b. Root Cause Analysis

i. Comments

Many commenters supported the proposed approach to require facilities to conduct root cause analyses after an incident. One of the commenters suggested that the proposed requirements would likely prevent harm from repeated incidents. Another commenter noted that root cause analyses provide an additional opportunity to better understand the processes, procedures, and culture that may contribute to accidents.

Several commenters did not support the revision of the incident investigation provision to include root cause analysis requirements. Several commenters suggested that EPA has not

justified the additional regulation, shown that the current rules are ineffective, or proven that root cause analysis is effective at reducing accidents. A couple of the commenters stated that EPA does not provide data to show that repeat accidents are partially or fully caused by a facility's failure to conduct a root cause analysis. A commenter also stated that the concept of "root cause" can be misleading, as there is not always a singular reason for why an incident occurred. The commenter said EPA should recognize that a root cause analysis is not always the most appropriate post-incident investigation method. Several commenters noted that the inclusion of the root cause analysis requirements is duplicative of existing regulations or common industry practices, is unnecessary, and thus will not result in meaningful benefits. Several commenters stated that OSHA PSM programs already include root cause analysis as a part of incident investigations. A couple of commenters suggested that EPA not expand incident investigation thresholds without coordination with OSHA's anticipated updates to the PSM standard. One commenter noted that OSHA has primary jurisdiction on this issue, and therefore EPA should ensure consistency with current and future changes to the PSM.

ii. EPA Responses

EPA is finalizing the requirements as proposed. EPA agrees with those comments supporting the proposed provision and believes that requiring root cause analyses after RMP-reportable accidents, and including root cause information in incident investigation reports, is vital for understanding the nature of these events and how they may occur.

In response to comments asserting that EPA has not justified the root cause analysis requirement or provided data to show that repeat accidents are partially or fully caused by a facility's failure to conduct a root cause analysis, EPA acknowledges that such data has not been provided to show causation, but notes that EPA has not previously required a root cause analysis

for incident investigations, and therefore, does not have data available to compare the frequency of repeat accidents at facilities conducting (or failing to conduct) root cause analyses. However, EPA did perform an analysis of EPA's RMP accident reporting data and identified repeat accidents at facilities within the same process.[94] The result of this analysis demonstrates that, among facilities reporting accidents, facilities that reported one accident often have a history of multiple accidents, thus indicating a failure to properly address circumstances leading to subsequent accidents. These accidents may have been preventable if root cause analyses had been required. EPA believes multiple accidents result, in part, from a failure to thoroughly investigate and learn from prior accidents.

With regard to comments about the appropriateness of a root cause analysis as a post-incident investigation method, EPA has provided detailed background information on the usefulness of root cause analysis in both the 2016 amendments proposed rule (81 FR 13638) and the 2022 SCCAP proposed rule (87 FR 53556). EPA also notes that the final rule does not require facilities to use a specific root cause analysis method, select from a predetermined list of root causes, or force-fit investigation findings into an inappropriate category.

With regard to comments that noted potential overlap with existing regulations, EPA notes that a regulated source already subject to another requirement that duplicates the RMP root cause analysis requirement may use its compliance with the other requirement to demonstrate compliance with the equivalent RMP root cause analysis requirement. Additionally, EPA continues to routinely coordinate with OSHA to ensure that any incident investigation root cause analysis provisions do not contradict OSHA PSM requirements.

[94] Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs Under the Clean Air Act, section 112(r)(7); Safer Communities by Chemical Accident Prevention (April 19, 2022).

c. Applicability of the Root Cause Analysis Requirements

i. Comments

A commenter expressed support for EPA's proposal to limit the root cause analysis requirements to Program 2 and Program 3 processes. A couple of commenters recommended that EPA expand coverage of this requirement to apply to all RMP facilities. A couple of commenters proposed that EPA further limit facilities subject to the root cause analysis requirements. One of the commenters recommended that the root cause analysis requirement should only be mandated for Program 3 facilities, since they have the most complex processes, which is where root cause analyses are most useful. The commenter suggested that conducting root cause analyses is resource intensive and costly, and imposing the requirements on other non-Program 3 facilities will be overly burdensome without commensurate benefits. Another commenter recommended that EPA only require root cause analyses for larger, more complex water systems, as the root cause analysis process is resource intensive and burdensome. Commenters asked EPA to clarify that root cause analysis is still required where a process is decommissioned or destroyed.

ii. EPA Responses

EPA is finalizing the applicability of the root cause analysis provision, as proposed. EPA believes this provision is most appropriate for Program 2 and 3 processes because facilities with these processes have RMP-reportable accidents more often (Program 2 = 15 percent, Program 3 = 83 percent of total accidents from 2004-2020) and pose a greater risk to the public because their worst-case scenario distance would affect public receptors. Program 1 processes only account for few of the total RMP-reportable accidents (3 percent of total accidents from 2004-

2020), do not have recent accident history with specific offsite consequences, and have no public receptors within the worst-case release scenario distance.[95]

While it is true that most RMP-reportable accidents occur at Program 3 processes, EPA decided that there was little justification for limiting the root cause requirements to only Program 3 processes, because serious accidents also occur at Program 2 processes (87 FR 53593). Also, the Agency notes that some of the accidents at Program 2 processes occur at publicly-owned water and wastewater treatment facilities that are not in Program 3 only because they are not located in a State with an OSHA-approved State Plan.[96] While State and local government employees at facilities in States with OSHA-approved State Plans must comply with State Plan requirements that are at least as effective as the Federal OSHA PSM standard, State and local government employees at facilities in States under Federal OSHA authority are not covered by the OSHA PSM standard or any equivalent measures. This results in regulated processes at these sources being placed in Program 2, even though the processes generally pose the same risk as similar processes at publicly owned water or wastewater treatment processes that are located at sources in States with an OSHA State Plan. With regard to those commenters that recommended narrowing the applicability of the root cause analysis requirement because of the burden associated with the requirement, EPA notes that the burden of the proposed root cause analysis is relatively small. Few sources will have to conduct a root cause analysis because accidents occur at only a small number of sources, and many sources already perform root cause analyses in a manner consistent with industry or company protocols. Therefore, EPA does not

[95] Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs Under the Clean Air Act, section 112(r)(7); Safer Communities by Chemical Accident Prevention (April 19, 2022).

[96] See 40 CFR 68.10 Program 2 eligibility requirements.

believe that the anticipated burden of this requirement is a rationale for revising the applicability of the requirements.

With regards to clarity on applicability of decommissioned or destroyed processes to the root cause analysis provision, the Agency did not propose, and therefore will not require, decommissioned or destroyed processes, as long as they remain in that decommissioned or destroyed state, to comply with this provision. As discussed in the previous rulemakings, commenters have not identified a significant number of release incidents at RMP facilities that had resulted in a destroyed or decommissioned process without any RMP accident report. The absence of a substantial number of examples leads the Agency to conclude that the gap is not significant enough to address at this time.

d. Use of a Recognized Investigation Method

i. Comments

Several commenters provided feedback on the investigation methods and analysis elements described in the proposed rule. Several commenters noted that EPA should not mandate the use of a recognized method for the analysis, as there are many ways to conduct the analysis. One of the commenters indicated that prescribing a method may interfere with a facility's engineering judgement and use of investigative practices that are tailored to their unique facilities. Another commenter said EPA should ensure that owners and operators have flexibility to modify recognized investigation methods to reflect the context, which may involve very complex or relatively simple processes or incidents. A couple of commenters requested that EPA define "recognized investigation method" to clarify what entity is approving a methodology. One of the commenters recommended revising the language to read "investigation method recognized by applicable industry code writing or RAGAGEP establishing body." One commenter

suggested that EPA require that incident investigations include staff with expertise in: the process involved, the facility's root cause analysis method, and overseeing incident investigation analysis.

ii. EPA Responses

EPA is finalizing, as proposed, the requirements that root causes must be determined through the use of a recognized method. The final rule will allow the owner or operator to determine root causes using a "recognized method" that is appropriate for their facility and circumstance. EPA disagrees that the Agency should specify recognized investigation methods or point to specific entities for such methods. Investigation methods evolve over time, and new methods may be developed. Therefore, any list promulgated by EPA in this rule may soon be obsolete. The Agency took a similar approach in the PHA requirements for the existing rule, where it listed several potential methods, but also included the option to use an appropriate equivalent methodology. EPA recommends that owners and operators consult available literature on root cause investigation methodologies to select those appropriate for their facility and processes. For example, CCPS has published, "Guidelines for Investigating Process Safety Incidents," which provides extensive guidance on incident investigations, near miss identification, root cause analysis, and other related topics.[97]

In response to comments requesting that the incident investigation team be required to include someone knowledgeable in the root cause analysis technique, EPA believes this is already required under 40 CFR 68.60(c) and 68.81(c), where the incident investigation team is required to consist of "persons with appropriate knowledge and experience to thoroughly

[97] CCPS 2019. Center for Chemical Process Safety, *Guidelines for Investigating Process Safety Incidents*, 3rd Edition, NY: AIChE.

investigate and analyze the incident." EPA intends this phrase to include a person knowledgeable in selection and use of root cause analysis techniques.

e. Investigation Timeframe

i. Comments

Several commenters suggested a shorter investigation timeframe. A few commenters suggested an initial report/investigation be completed within 90 days, and a final report within a shorter timeframe, such as 6 months. One commenter also suggested EPA require initiation of incident investigations and root cause analyses within 24 hours after the incident. Several commenters supported the 12-month requirement for completing an incident investigation. A couple of commenters also supported EPA allowing extensions, when necessary. One commenter also said EPA should not question extension requests from facilities, as some thorough investigations will require more than 12 months. Several commenters opposed the regulatory deadlines for root cause analysis investigations. A couple of commenters stated that based on the complexity of the incident and level of input needed from external technical experts, a 12-month timeline may not provide enough time. One commenter requested that EPA clarify that the 12-month timeline is only for the completion of the investigation, not when the recommendations must be implemented.

ii. EPA Responses

After considering these comments, EPA has is finalizing the requirement to complete incident investigations within 12 months as proposed. EPA believes that this timeframe will provide a reasonable amount of time to conduct most investigations, while also ensuring that investigation findings are available relatively quickly in order to assist in preventing future incidents. For very complex incident investigations that cannot be completed within 12 months,

EPA is allowing an extension of time if the implementing agency (*i.e.,* EPA and delegated authorities) approves such an extension, in writing. EPA encourages owners and operators to complete incident investigations as soon as practicable and believes that 12 months is typically long enough to complete even complex incident investigations. However, EPA has provided flexibility for facilities to request more time to complete investigations when they consult with their implementing agency and receive written approval for an extension. EPA also re-emphasizes the importance of implementing recommendations as soon as possible after incident investigation completion to prevent future similar incidents.

D. Third-Party Compliance Audits

1. Summary of Proposed Rulemaking

a. Definitions, 40 CFR 68.3

EPA proposed to define "third-party audit" to mean a compliance audit conducted pursuant to the requirements of 40 CFR 68.59 and/or 68.80, performed or led by an entity (individual or firm) meeting the competency and independence requirements in those sections.

b. Compliance Audits, 40 CFR 68.58(a) and 68.79(a)

EPA proposed to edit 40 CFR 68.58(a) and 68.79(a) to add the language "for each covered process" to compliance audits, self and third-party, to address compliance with the provisions of subpart C or D for each covered process.

EPA also added a sentence at the end of the paragraph to reference when a compliance audit must be a third-party audit.

c. Third-party Audit Applicability for Compliance Audits, 40 CFR 68.58(f) and 68.79(f)

EPA proposed to add paragraph (f) to 40 CFR 68.58 and 68.79 which identified third-party audit applicability. EPA proposed that the next required compliance audit for an RMP facility would be a third-party audit when one of the following conditions apply:

- Two accidental releases within five years meeting the criteria in 40 CFR 68.42(a), from a covered process have occurred.
- One accidental release within five years meeting the criteria in 40 CFR 68.42(a), from a covered process at a stationary source in NAICS code 324 or 325, located within 1 mile of another stationary source having a process in NAICS code 324 or 325, has occurred.
- An implementing agency requires a third-party audit due to conditions at the stationary source that could lead to an accidental release of a regulated substance, or when a previous third-party audit failed to meet the competency or independence criteria of 40 CFR 68.59(c) or 40 CFR 68.80(c).

In addition to the proposed approach for third-party audit applicability, EPA particularly sought comment on the two new conditions modified from the 2017 amendments rule, which applied increased accident severity, frequency, and consequences as a basis for the proposed provision.

d. Third-Party Audit Implementing Agency Notification and Appeals, 40 CFR 68.58(g) and 68.79(g)

EPA proposed to add paragraph (g) to 40 CFR 68.58 and 68.79 which described the procedure when an implementing agency requires a third-party audit and proposed an internal appeals process. EPA proposed to require an implementing agency to provide written notice to the facility owner or operator stating the reasons for the implementing agency's preliminary

determination that a third-party audit is necessary. The owner or operator would have an opportunity to respond by providing information to, and consulting with, the implementing agency. The implementing agency would then provide a final determination to the owner or operator. If the final determination requires a third-party audit, the owner or operator would have an opportunity to appeal the final determination. EPA proposed that the implementing agency would provide a written, final decision on the appeal to the owner or operator after considering the appeal.

e. Schedule for Conducting a Third-Party Audit, 40 CFR 68.58(h) and 68.79(h)

EPA proposed to add paragraph (h) to 40 CFR 68.58 and 68.79 which described the schedule for completing third-party audits. For third-party audits required pursuant to paragraph (f)(1) of this section, the proposed language required the audit and associated report to be completed within 12 months of the second of 2 releases within 5 years. For third-party audits required pursuant to paragraph (f)(2) of this section, the proposed language required the audit and associated report to be completed within 12 months of the release. For third-party audits required pursuant to paragraph (f)(3) of this section, the proposed language required the audit and associated report to be completed within 12 months of the date of the final determination pursuant to paragraph (g)(3) of this section, or if the final determination is appealed pursuant to paragraph (g)(4) of this section, within 12 months of the date of the final decision on the appeal.

f. Third-Party Audits Applicability, 40 CFR 68.59(a) and 68.80(a)

EPA proposed to add 40 CFR 68.59 and 68.80, which included requirements for both third-party audits and third-party auditors. In paragraph (a), EPA proposed that owners or operators engage a third-party to conduct an audit that evaluates compliance with the provisions

of subpart C or D (as applicable) when the applicability criteria of 40 CFR 68.58(f) or 40 CFR 68.79(f) are met.

g. Third-Party Auditors and Auditing Teams, 40 CFR 68.59(b) and 68.80(b)

EPA proposed to include paragraph (b) to 40 CFR 68.59 and 68.80 which provides that owners or operators either engage a third-party auditor meeting the competency and independence criteria of paragraph (c) of this section, or assemble an auditing team, led by a third-party auditor meeting the competency and independence criteria of paragraph (c) of this section. The team may include other employees of the third-party auditing firm or other personnel, including facility personnel.

h. Third-Party Auditor Qualifications, 40 CFR 68.59(c) and 68.80(c)

EPA proposed to include paragraph (c) to 40 CFR 68.59 and 68.80 which includes qualifications for third-party auditors and required facility owners and operators to document that the third-party auditor(s) meet the competency and independence requirements. Specifically, EPA proposed that facility owners or operators determine and document that the third-party auditors meet the competency requirements set forth in paragraph (c)(1) and the independence requirements in paragraph (c)(2).

The proposed competency requirements for auditors require third-party auditors to be:

- Knowledgeable with the requirements of 40 CFR part 68.
- Experienced with the facility type and processes being audited and the applicable RAGAGEP; and
- Trained or certified in proper auditing techniques.

The proposed independence requirements that would apply to the third-party auditors require the third-party auditors to:

- Act impartially when performing all activities under this section.
- Receive no financial benefit from the outcome of the audit, apart from payment for the auditing services.
- Ensure that all third-party personnel involved in the audit sign and date a conflict-of-interest statement documenting that they meet the independence criteria of this paragraph.
- Ensure that all third-party personnel involved in the audit do not accept future employment with the owner or operator of the stationary source for a period of at least two years following submission of the final audit report. For purposes of this requirement, employment does not include performing or participating in third-party audits pursuant to 40 CFR 68.59 or 40 CFR 68.80.

In paragraph (c)(3), the proposed rule required the auditor to have written policies and procedures to ensure that all personnel comply with the competency and impartiality requirements.

In addition to the proposed approach for third-party auditor qualifications, EPA particularly sought comment on the proposed independence criterion as it is modified from the 2017 amendments rule.

i. Third-Party Auditor Responsibilities, 40 CFR 68.59(d) and 68.80(d)

EPA proposed to include paragraph (d) to 40 CFR 68.59 and 68.80 which includes the responsibilities for third-party auditors. Specifically, EPA proposed that the owner or operator ensure that the third-party auditor:

- Manages the audit and participates in audit initiation, design, implementation, and reporting.

- Determines appropriate roles and responsibilities for the audit team members based on the qualifications of each team member.
- Prepares the audit report and where there is a team, documents the full audit team's views in the final audit report.
- Certifies the final audit report and its contents as meeting the requirements of this section.
- Provides a copy of the audit report to the owner or operator.

j. Third-Party Audit Report, 40 CFR 68.59(e) and 68.80(e)

EPA proposed requirements for the audit report in paragraph (e) of 40 CFR 68.59 and 68.80. Specifically, EPA proposed that the audit report:

- Identify all persons participating on the audit team, including names, titles, employers and/or affiliations, and summaries of qualifications. For third-party auditors, include information demonstrating that the competency requirements in paragraph (c)(1) of this section are met.
- Describe or incorporate by reference the policies and procedures required under paragraph (c)(3) of this section.
- Document the auditor's evaluation, for each covered process, of the owner or operator's compliance with the provisions of this subpart to determine whether the procedures and practices developed by the owner or operator under this rule are adequate and being followed.
- Document the findings of the audit, including any identified compliance or performance deficiencies.

- Summarize any significant revisions (if any) between draft and final versions of the report.
- Include the following certification, signed and dated by the third-party auditor or third-party audit team member leading the audit:

> I certify that this RMP compliance audit report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information upon which the audit is based. I further certify that the audit was conducted and this report was prepared pursuant to the requirements of subpart C of 40 CFR part 68 and all other applicable auditing, competency, independence, impartiality, and conflict of interest standards and protocols. Based on my personal knowledge and experience, and inquiry of personnel involved in the audit, the information submitted herein is true, accurate, and complete.

k. Third-Party Audit Findings, 40 CFR 68.59(f) and 68.80(f)

EPA proposed requirements for the audit findings in paragraph (f) of 40 CFR 68.59 and 68.80. EPA proposed in paragraph (f)(1), to require owners or operators, as soon as possible, but no later than 90 days after receiving the final audit report, to determine an appropriate response to each of the findings in the audit report and develop and provide a findings response report. EPA proposed that the findings response report would include:

- A copy of the final audit report.
- An appropriate response to each of the audit report findings.
- A schedule for promptly addressing deficiencies.
- A statement, signed and dated by a senior corporate officer, certifying that appropriate responses to the findings in the audit report have been identified and deficiencies were corrected, or are being corrected, consistent with the requirements of subpart C or D of 40 CFR part 68.

EPA proposed in paragraph (f)(2), to require the owner or operator to implement the schedule to address deficiencies identified in the audit findings response report, and document the action taken to address each deficiency, along with the date completed.

Proposed paragraph (f)(3) required the owner or operator to provide a copy of documents required under paragraphs (f)(1) and (f)(2) to the owner or operator's audit committee of the Board of Directors, or other comparable committee, if applicable.

l. Third-party audit recordkeeping, 40 CFR 68.59(g) and 68.80(g)

Finally, in paragraph (g) of 40 CFR 68.59 and 68.80, EPA proposed recordkeeping requirements for the owner or operator regarding third-party audits. The proposal required the owner or operator to retain records at the stationary source, including: the two most recent final third-party audit reports, related findings response reports, documentation of actions taken to address deficiencies, and related records. EPA proposed that these requirements would not apply to any documents that are more than five years old.

2. Summary of Final Rule

Based on review of comments, EPA is finalizing the proposed provisions for third-party audits with the following modifications:

- EPA is revising the requirements in paragraph (f) of 40 CFR 68.58 and 68.79 that triggered when a third-party audit would be required. For the final rule, two of the three proposed conditions (i.e., two accidental releases within five years meeting the criteria in 40 CFR 68.42(a), from a covered process have occurred; or one accidental release within five years meeting the criteria in 40 CFR 68.42(a), from a covered process at a stationary source in NAICS code 324 or 325, located within 1 mile of another stationary source having a process in NAICS code 324 or 325, has occurred)

are being replaced with one condition—one accidental release meeting the criteria in 40 CFR 68.42(a), from a covered process. The other condition allowing an implementing agency to require a third-party audit is being finalized as proposed.

- EPA is not finalizing compliance audit language at 40 CFR 68.58(a) and 68.79(a) which proposed auditing for every covered process at a facility. This corrects an error in the proposed rulemaking text. By not finalizing this language, compliance audits will remain consistent with the current practice, which allows for representative sampling. A discussion of representative sampling as an acceptable practice for compliance audits can be found in the Reconsideration final rule.[98]
- EPA is also not finalizing compliance audit language at 40 CFR 68.58(h) and 68.79(h) which proposed a 12-month timeline for a third-party audit after a triggering criterion. The revised final requirement relies on the language at 40 CFR 68.58(f) and 68.79(f) which refers to the timeline of a third-party audit to be the "next required compliance audit," which is at least every 3 years under 40 CFR 68.58(a) and 68.79(a).

3. Discussion of Comments and Basis for Final Rule Provisions

In the proposed rule, EPA sought comment on several aspects of the Agency's proposed approach for third-party audits. As described in the proposed rule, third-party audits were included in the 2017 amendments rule, and at that time EPA addressed many general comments regarding the inclusion of third-party audits in the RMP rule, including the justification for and legality of, third party audits, and the benefits of third-party audits. This final rule contains some differences from both the 2017 amendments rule and the 2022 SCCAP proposed rule. EPA

[98] 84 FR 69834 (69882).

specifically sought comment on some of the changes, including: the proposed approach for third party audits; the proposed independence criteria, as modified from the 2017 amendments rule; whether the selected auditor should be mutually approved by the owner or operator and employees and their representatives; if direct participation from employees and their representative should be required when a third party conducts an audit; and, whether EPA should require declined findings be included in narrative form, or whether the Agency should provide specific categories of findings for facilities to choose from when reporting. The following discusses EPA's basis for the third-party audit provisions adopted in this final rule.

a. Proposed Approach for Third-Party Audits

Regarding the proposed approach for third-party audits, EPA received comments supporting, opposing, and suggesting improvements to various aspects of the new proposed approach. Numerous commenters expressed support for restoring the third-party auditing requirements of the 2017 amendments rule. One of the commenters noted that third-party auditing helps to ensure a systematic evaluation of the full prevention program for covered processes, while self-auditing may be insufficient to prevent accidents and ensure compliance. Another commenter emphasized that third-party audits will also ensure they are unbiased, compared to self-audits. Many commenters expressed opposition to the third-party audit provision. Some commenters argued that the third-party auditing requirements are unnecessary, would be too burdensome, and could be potentially costly for facilities. Some commenters proposed that the language in the provision should be revised to state that audits should be performed every three years, pointing out an inconsistency in when audits would be required.

Several commenters recommended that the requirement triggering a third-party audit after 2 accidental releases within a 5-year period is not stringent enough, and facilities should be

required to conduct a third-party audit after one accidental release or discovery of significant non-compliance. One of the commenters suggested that a 5-year window for accident history is too narrow. A few commenters suggested that third-party audits be required for all RMP facilities without waiting for an incident to occur. Several commenters opposed the 2-accident trigger for third-party compliance audits due to its vague nature that could result in facilities conducting audits when they are not warranted. One of the commenters suggested that EPA narrow the third-party audit trigger from reportable accidents to catastrophic releases. Another commenter noted that accidental releases already trigger incident investigations, including the proposed root cause analysis; therefore, an additional third-party audit will unnecessarily dilute the investigation effort and will be overly burdensome to facilities.

Comments were received regarding the 1-mile audit triggering criteria, mostly in opposition, for various reasons, including that it is too vague and overly broad. Another commenter interpreted this requirement as emphasizing protecting select facilities over protecting the public. One commenter suggested that this requirement could penalize facilities with an otherwise outstanding environmental and safety record because a neighboring facility within one mile does not. One commenter suggested that that the requirement triggering a third-party audit should be required after one accidental release at a facility with a 324 or 325 NAICS code regardless of location to another facility. Another commenter suggested that EPA develop a more user friendly, up-to-date, and accessible method of determining if a facility is within 1 mile of another facility with a 324 or 324 NAICS code to ensure compliance with this provision.

ii. EPA Responses

EPA agrees with the comments in support of the third-party compliance audit requirement to be included in the final rule and believes it is appropriate to require a subset of RMP-regulated facilities to engage competent and independent third-party auditors following the conditions set forth in this final rule after: (1) One accidental release meeting the criteria in 40 CFR 68.42(a) from a covered process at a stationary source has occurred; or (2) an implementing agency requires a third-party audit due to conditions at the stationary source that could lead to an accidental release of a regulated substance, or when a previous third-party audit failed to meet the competency or independence criteria of 40 CFR 68.80(c). As indicated in the proposal, EPA RMP accident history data show that, while 97 percent of all RMP facilities had no RMP-reportable accidents from 2016–2020, 3 percent of all RMP facilities had at least 1 RMP-reportable accident and 0.5 percent (n = 70) of all RMP facilities had 2 or more RMP-reportable accidents. EPA views one 40 CFR 68.42(a) accidental release as a serious matter, considering the possible outcomes are deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage. Further, the average per accident damage estimate from 2016-2020 is $5.5 million., It is arguable that having even one accident should be a cause for concern considering most RMP facilities have never had any accidents. Additionally, of these 70 facilities that had at least 1 RMP-reportable accident, 61 percent (n = 43) had experienced another accident prior to 2016. EPA does not believe affected communities should have to experience the adverse consequences of a second reportable accident before an objective party comes in to evaluate the facility for compliance. The pattern of repeated accidents at RMP facilities provide a reasoned basis for EPA's focus on these facilities to apply a greater level of risk reduction measures.

EPA notes that under 40 CFR part 68, sources with any Program 2 and/or Program 3 processes are already required to conduct compliance audits every three years. This rule does not change the requirement that RMP facilities regularly conduct RMP compliance audits, but adds that, in specific situations, those audits must be performed by a third-party or a team led by a third-party, pursuant to the requirements and schedule in 40 CFR 68.58 and/or 68.79 of the rule. EPA notes that having a third-party conduct a compliance audit does not preclude the facility from conducting an in-house compliance audit in tandem. If the goal is to ensure that preventative measures are in place to prevent future accidents, EPA hopes that a facility would want to implement all such measures to ensure it is compliant. EPA disagrees that the third-party audit requirement should be expanded to include, as some commenters suggested, all RMP facilities without waiting for an accident. While independent third-party audits help to ensure an independent systematic evaluation of the full prevention program at an RMP facility, EPA is not making this a regulatory requirement for all RMP sources before an accident, at this time, due to the increased burden associated with these audits.

EPA acknowledges the costs associated with third-party audit requirements. Although this final rule requires a larger group of stationary sources to conduct third-party audits than the proposal, the costs are justified. The Agency believes the affected group of stationary sources are sources that will benefit from an independent objective audit of their compliance with prevention program requirements, as they have already had one RMP-reportable accidental release. As described in the proposed rule, EPA recognizes that a relatively small number of RMP-regulated facilities have had RMP-reportable accidents. EPA continues to be concerned with these RMP facilities that—despite current RMP regulations, enforcement, and lessons learned from previous accidents—continue to have accidents and, in some cases, multiple accidents, thereby continuing

to put nearby communities at risk. Sources that have had one accident are substantially more likely to have another accident than the general population of RMP-regulated sources. EPA is concerned that those facilities may not have been able to identify measures on their own (through incident investigations, hazard evaluations, and compliance self-audits) to properly evaluate and apply appropriate prevention program measures to stop accident releases from occurring. Considering the goal of the RMP regulations is to prevent accidental releases, EPA believes that the increased cost of third-party compliance audits at such facilities is therefore justified.

In response to comments on when third-party audits are required, EPA is clarifying and finalizing that, whichever criteria triggers the requirement, a third-party need only be engaged for the next required compliance audit(s), which is no later than 3 years from the previous compliance audit. The revised final requirement relies on the language at 40 CFR 68.58(f) and 68.79(f) which refer to the timeline of a third-party compliance audit to be the "next required compliance audit," which is at least every 3 years under 40 CFR 68.58(a) and 68.79(a). For example, if a facility conducted an internal compliance audit in August 2024 and had an RMP-reportable accident in October 2024, the next compliance audit, required by August 2027, would be a third-party audit. EPA believes this approach is appropriate because it will allow the source to remain within their already required scheduled timing for audits. Further, when an accident occurs, the source will be required to conduct an RCA within 12 months; the 3-year finalized timeframe for the audit will give the source flexibility to accomplish both within their compliance due dates. If the third-party audit is completed after the RCA, it will give the source an additional opportunity to uncover deficiencies that led to the accident. In other words, the third-party audit will be a follow-up to review the RCA and ensure all practices to prevent an accident have been resolved.

The third-party audit provision is intended to reduce the risk of future accidental releases by requiring an objective auditing process to assist owners and operators in determining whether facility procedures and practices comply with subparts C and/or D of the RMP rule (*i.e.,* the prevention program requirements), are adequate, and are being followed. Thus, EPA is finalizing requirements for third-party audits under 40 CFR 68.58 and 68.79 to require that owners and operators ensure that third-party auditors meet qualification criteria, that audits are conducted and documented, and that findings are addressed pursuant to the requirements of 40 CFR 68.59 and 68.80, as applicable.

b. Proposed Independence Criteria

In the preamble to the 2022 SCCAP proposed rule, EPA sought comment on the proposed independence requirements modified from the 2017 amendments rule. The modification was to remove the following auditor independence requirements contained in 40 CFR 68.59 and 68.80(c)(2)(iii)-(iv) to allow more flexibility in choosing auditors:

- Auditors cannot have conducted past research, development, design, construction services, or consulting for the owner or operator within the last 2 years.
- Auditors cannot provide other business or consulting services to the owner or operator, including advice or assistance to implement the findings or recommendations of an audit report, for a period of at least 2 years following submission of the final audit report.

i. Comments

Many of the comments received regarding independence requirements did not address the change, which removed these two requirements. As with the 2017 amendments rule, EPA has received comments generally in support of the proposed independence requirements, and some

generally opposed to the independence requirements. Such general comments were previously addressed by EPA during the 2017 rulemaking.[99]

However, EPA did receive some comments specifically regarding this proposal to remove these two independence requirements, generally in support of removing these requirements. One commenter supported removing these requirements, describing them as unrealistic and unworkable, and another commenter described them as onerous and unnecessary. This commenter further stated that these requirements would have resulted in an insufficient pool of qualified auditors, harmed the quality of audits, and significantly driven up costs. However, another commenter requested that EPA reconsider the proposal to remove the proposed auditor independence requirements, stating that auditor independence is of paramount importance.

ii. EPA Responses

EPA is finalizing the proposed independence requirements and believes this is an important and necessary aspect of third-party audits. EPA notes that these independence requirements were simplified and streamlined from the 2017 rule, which included a limitation for auditors who conducted consulting type services for the owner or operator within the last two years, or for a period of at least 2 years following the audit report. EPA believes the provision, as adopted, ensures additional available independent auditors to act in an independent and impartial manner, allowing more flexibility in choosing auditors.

c. Employee Participation

In the preamble to the proposed rule, EPA sought comment on whether the selected auditor should be mutually approved by the owner or operator and employees and their

[99] Response to Comments on the 2016 Proposed Rule Amending EPA's Risk Management Program Regulations; https://www.epa.gov/sites/default/files/2016-12/documents/rmp_rtc_compiled_12-21-16.pdf.

representatives, and if direct participation from employees and their representative should be required when a third party conducts an audit.

i. Comments

EPA received comments in support and in opposition to these provisions. One commenter supported the provision that the selection of a third-party auditor be mutually approved by the owner or operator and employee representatives and suggested that employees and their representatives be involved in all stages of the audit. However, several commenters expressed opposition to a requirement that the selected auditor be mutually approved by the owner/operator, employees, and employee representatives. One commenter noting that this requirement would increase the time needed to vet and approve auditors, causing unnecessary delays. Another commenter suggested that the auditor be selected by facility management and that bringing unknowledgeable employees into the decision-making process would be burdensome and will not improve compliance.

ii. EPA Responses

While EPA encourages sources to include employee participation during third-party audits, EPA is not finalizing a provision that requires employee participation in third-party audits at this time. The Agency expects the enhancements to employee participation required by this rule will motivate owners and operators to recognize the benefit of involving their employees and their representatives in all aspects of the process safety management at their facility.

d. Format of Declined Third-Party Compliance Audit Findings

i. Comments

EPA has received comments in support of, and in opposition to, requiring declined findings to be included in narrative form. One comment in support argued that more detailed

information on the recommendations and decisions are needed to ensure that a facility does not avoid implementing necessary or practical recommendations. Another commenter noted that the suggested categories would fall short of capturing the reasons to decline an audit recommendation, such as a recommendation that is impractical or ineffective.

Several commenters expressed opposition to requiring facilities to provide declined findings in narrative form in the RMP. Several commenters noted that this requirement would be overly burdensome. Several commenters raised concerns that the public release of this information would be confusing to those that are not knowledgeable about a facility's processes. Some commenters noted that public pressure may result in difficult technical debates about unfounded findings or cause facilities to address findings they disagree with. Another commenter recommended that the justification for declined findings should be consistent with the criteria outlined by OSHA's 1994 Compliance Directive, asserting that this would make a narrative text in the RMP repetitive. One commenter noted concerns about releasing information to local responders, who may lack the expertise in chemical processes, could result in incorrect response activities during an accidental release. A couple of commenters suggested that this requirement would discourage facility leaders from encouraging audit teams to identify potential hazards to limit the information that must be reported to EPA. The commenters also suggested that audit findings are already readily available to EPA. Several commenters requested that EPA not mandate that facilities make declined findings publicly available online due to security concerns of releasing highly sensitive information.

ii. EPA Responses

In the final rule, EPA is requiring facilities to choose from categories, similar to those in OSHA's 1994 Compliance Directive, as the Agency believes it will ease the use and general

consistency for facilities to report and communities to review declined third-party audit recommendations. This format will also help EPA administer and track how facilities choose to comply with this provision.

e. Reporting Requirements

A commenter suggested that EPA ensure that the reporting requirements for Program 3 facilities match those for Program 2 facilities, noting that 40 CFR 68.175(k) is missing the key language in proposed 40 CFR 68.170(i): "and findings declined from third-party compliance audits and justifications."

EPA notes that this was an error, and this has been corrected in the final rule.

E. Employee Participation

1. Summary of Proposed Rulemaking

a. Recommendation Decisions, 40 CFR 68.83(c)

EPA proposed to revise 40 CFR 68.83, which is applicable to Program 3 processes, by adding an additional provision, paragraph (c), to the written employee participation plan of action. Proposed paragraph (c) would require the owner or operator to consult with employees and their representatives on addressing, correcting, resolving, documenting, and implementing recommendations and findings of PHAs under 40 CFR 68.67(e), compliance audits under 40 CFR 68.79(d), and incident investigations under 40 CFR 68.81(e).

b. Stop Work Authority, 40 CFR 68.83(d)

EPA proposed to revise 40 CFR 68.83, which is applicable to Program 3 processes, by adding an additional provision, paragraph (d), to the written employee participation plan of action. Proposed paragraph (d) would require the owner or operator to provide the following

authorities to employees and their representatives, and to document and respond in writing, within 30 days of the authority being exercised:

- Refuse to perform a task when doing so could reasonably result in a catastrophic release.
- Recommend to the operator in charge of a unit that an operation or process be partially or completely shut down, in accordance with procedures established in 40 CFR 68.69(a), based on the potential for a catastrophic release.
- Allow a qualified operator in charge of a unit to partially or completely shut down an operation or process, in accordance with procedures established in 40 CFR 68.69(a), based on the potential for a catastrophic release.

c. Accident and Noncompliance Reporting, 40 CFR 68.62, 68.83(e)

EPA proposed to add 40 CFR 68.62, which is applicable to Program 2 processes, to require the owner or operator to:

- Develop a written plan of action regarding the implementation of the employee participation requirements.
- Develop and implement a process to allow employees and their representatives to anonymously report unaddressed hazards that could lead to a catastrophic release, unreported RMP-reportable accidents, or any other noncompliance.
- Provide employees and their representatives access to hazard reviews and to all other information required to be developed under this rule.

EPA proposed to revise 40 CFR 68.83, which is applicable to Program 3 processes, by adding an additional provision, paragraph (e), to the written employee participation plan of action. Proposed paragraph (e) would require the owner or operator to develop and implement a

process to allow employees and their representatives to anonymously report unaddressed hazards that could lead to a catastrophic release, unreported RMP-reportable accidents, or any other noncompliance.

In addition to the proposed approach to accident and noncompliance reporting, EPA solicited comment on whether owners and operators should: (1) Distribute an annual written or electronic notice to employees that employee participation plans and other RMP information is readily accessible upon request; (2) provide training for those plans; and (3) provide training on how to access the information.

2. Summary of Final Rule

EPA is finalizing the proposed provisions for employee participation with the following modifications:

- Revising 40 CFR 68.83(c) to specifically apply only to those employees knowledgeable in the process.
- Removing from 40 CFR 68.83(d) the stop work criterion allowing an employee to refuse to perform a task when doing so could reasonably result in a catastrophic release.
- Revising 40 CFR 68.83(d) so that the two remaining stop work criteria specifically apply only to those employees knowledgeable in the process.
- Removing from 40 CFR 68.83(d) the requirement to document and respond in writing within 30 days of the stop work authority being exercised.
- Revising 40 CFR 68.62(b) and 68.83(e) to allow the person reporting an unaddressed hazard, unreported accident, or noncompliance to decide whether or not they wish to make an anonymous report or attribute their identity to the report.

- Revising 40 CFR 68.62(b) and 68.83(e) to specify the methods of making a report to the owner and operator and EPA.
- Adding a provision to 40 CFR 68.62(b) and 68.83(e) to require the owner or operator to keep a written record of the report of noncompliance.
- Adding a provision to 40 CFR 68.62(a)(1) and 68.83(a)(1) for the owner or operator to provide an annual written or electronic notice to employees indicating RMP information is available.
- Adding a provision to 40 CFR 68.62(a)(2) and 68.83(a)(2) requiring the owner or operator to provide training on the written employee participation plan.
- Revising 40 CFR 68.62(a) and 68.83(a) to add the word "requirements" as a clarifying edit.

3. Discussion of Comments and Basis for Final Rule Provisions

a. Recommendation Decisions, 40 CFR 68.83(c)

i. Comments

Many commenters expressed support for the proposed requirement in 40 CFR 68.83(c) for the owner or operator to consult with employees and their representatives on addressing, correcting, resolving, documenting, and implementing recommendations and findings of PHAs, compliance audits, and incident investigations as a way of promoting collaboration between employees and management representatives. One State agency remarked that the goal of the provision is to ensure the team remains effective and is reflective of diverse viewpoints and backgrounds. However, other commenters opposed the provision, stating that transferring decision-making authority to employees presents additional legal issues in terms of employee responsibility and accountability, such as in the event an incident occurs, is investigated, and

results in disciplinary action or legal liability. Another commenter noted that EPA's use of "employees and their representatives" can be viewed too broadly.

ii. EPA Responses

EPA disagrees that this provision presents additional legal issues. This provision does not transfer decision-making responsibility to employees and their representatives. The provision also does not attempt to shift ultimate accountability to the employee for decisions that the owner or operator is responsible for. For example, at 40 CFR 68.67(e), the PHA provision indicates *the owner or operator* shall establish a system to promptly address the team's findings and recommendations, to assure that the recommendations are resolved in a timely manner, and that the resolutions are documented. Despite this provision, the regulated entity remains the owner or operator of the stationary source. The requirement to consult with employees and their representatives does not make employees the decision-making authority. This provision does, however, provide for consultation that gives employees the opportunity to provide their input and perspective, based on their firsthand knowledge of specific process safety concerns, before final decisions are made regarding whether to implement recommended process safety solutions. This provision helps ensure that a well-informed approach is applied when finalizing resolutions for reducing hazards and mitigating process safety risks.

In response to the comment that the term "employees and their representatives" can be viewed too broadly, EPA has amended the language to specify that the provision only applies to employees knowledgeable in the process and their representatives. EPA expects employees involved in the consultation to be knowledgeable in the process, as these employees are expected to have a better firsthand understanding of the process than employees who do not work in the process, who are new to the process, or who do not understand the process. EPA expects that

these employees are likely to also be the employees that have the qualifications to participate as a team member when developing recommendations from incident investigations under 40 CFR 68.81(c), compliance audits under 40 CFR 68.79(b), and PHAs under 40 CFR 68.67(d). At 40 CFR 68.67(d), the PHA provision indicates that the PHA shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and knowledge specific to the process being evaluated. EPA believes it is prudent to apply at least the same qualification criterion to employees who can participate in developing recommendations as to those who can assist in deciding whether those recommendations will be implemented.

After review of the comments, the Agency continues to believe that involving directly affected employees and their representatives in recommendation discussions and decisions will help ensure that the most effective recommendations for reducing hazards and mitigating risks to employees and the public are given the proper consideration. EPA is finalizing the proposed provision with the modification, for clarity, that those employees who are to be consulted on addressing, correcting, resolving, documenting, and implementing the recommendations and findings of PHAs, compliance audits, and incident investigations must be those knowledgeable in the process.

b. Stop Work Authority, 40 CFR 68.83(d)

i. Comments

Several commenters supported the proposed stop work authority provision of the employee participation plan under 40 CFR 68.83(d). One Federal agency indicated that any program that does not appropriately enable workers to freely exercise stop work authority in necessary circumstances would allow risks to occur and accumulate. Some commenters

supported the provision in principle but recommended modifications. A couple of commenters recommended removing the 30-day response period arguing that it should not be necessary when the authority is primarily used in imminently dangerous situations. A few commenters asserted that EPA should also require prompt reports of all stop-work authority usage so that EPA and the public are made aware and can evaluate whether additional quick action is needed to support the workers, assure compliance, and save lives.

Some commenters did not support the proposed stop work authority provision of the employee participation plan. One commenter noted that having uniform requirements and procedures for an operation shutdown ignores the diverse array of regulated facilities in terms of industry and process. The commenter asserted that EPA should allow for operational flexibility in recognition of these circumstances and emphasized the risk an abrupt shutdown of complex chemical processes would pose. Another commenter asserted that the underlying intent of the provision can be better addressed by establishing clear written guidelines on how employees can raise such concerns in "real time." Several commenters claimed that the stop work authority could result in increased safety risks, indicating the potential for employees to lack adequate knowledge or training to make such a decision. The commenters expressed further concern that the frequency of transient operations could increase, and that more unplanned or abrupt shutdowns could occur, which are often dangerous. A few of the commenters noted that giving this authority to all employees would leave facilities more susceptible to RMP incidents occurring and make the processes at RMP-covered facilities less safe.

A couple of commenters opposed the provision and noted that the language in the stop work authority provision would be too general, inevitably allowing every RMP covered process to be shut down by an employee. The commenters noted that this does not align with EPA's

stated purpose of the RMP rule, which is to improve safety at facilities. One State agency expressed concerns about and opposed the provision allowing employees to refuse to perform a task when they believe doing so could reasonably result in a catastrophic failure. The commenter further stated that it is extremely important that any stop work authority be implemented in a manner that minimizes the chance for adverse unintended consequences.

ii. EPA Responses

The proposed stop work provision within the employee participation section of this final rule is intended only to include the stop work authorities, established by the operating procedure provisions under 40 CFR 68.69(a), into the written employee participation plan. This provision is not intended to create new authorities or require additional components to those already developed. The final rule conforms the amendments to this intent. Therefore, while EPA believes that it is useful to evaluate any stop work authority exercised, EPA expects these internal evaluations to already be occurring in the owner or operator's annual review of operating procedures, through training activities, or when conducting compliance audits. The final rule does not add a provision to require evaluations be included in the written plan. Additionally, EPA agrees that stop work authorities are expected to be carried out in imminently dangerous situations such that a 30-day response to an authority being exercised long after the threat has passed may not be practical. Regarding providing reports of stop work to EPA, the Agency disagrees that this is necessary because stop work should be exercised to prevent imminently dangerous situations from resulting in catastrophic releases and therefore should not be contingent on or require quick action by outside parties. Furthermore, the Agency does not have the capability or resources to immediately respond to all instances of stop work being exercised. If, for some reason, quick action by outside parties was needed, EPA believes that the emergency

response plans required by the rule should already outline a plan for responding to dangerous situations by the facility and/or local responders as they will be the most familiar with the source's processes and hazards.

The proposed rule provided an extensive discussion of the stop work authority that is already inherent in the current RMP rule.[100] As the proposed rule explained, the current RMP rule already addresses many aspects of a stop work authority that provides means for employees to identify and resolve imminent operational risks before they occur. Operating procedures, maintenance/mechanical integrity, and their associated training requirements, which are already mandatory under the rule, create a stop work authority as they address the circumstances and procedures to identify unsafe operations. EPA believes each facility's individual operating procedures and approach to correcting equipment deficiencies give owners and operators the flexibility to design a stop work authority for their process operations that remains adaptable to the procedures already in place. Therefore, EPA disagrees with the comments that a stop work authority documented in the employee participation plan would cause more shutdowns and possibly more accidents, as the authority that is being provided by the final rule's provisions leverages existing operating procedure and maintenance requirements. In reference to the comment citing the potential for an increase in safety risks when an employee lacks adequate knowledge to make a stop work decision, EPA has amended the provision to specify that this authority should be exercised only by employees knowledgeable in the process and their representatives.

EPA disagrees that the new stop work authority provision does not align with the purpose of the RMP rule. Under the existing RMP rule, operating procedures are designed for, and

[100] 87 FR 53591.

assigned to, employees who will be trained on performing the tasks described, thereby producing employees knowledgeable in the process they are working in. However, because of the significant disruption to process operations that can occur when stop work authority is exercised, EPA agrees that it is useful to explicitly state that these authorities are applicable only to employees who are knowledgeable in the process. Further, EPA believes a work culture that promotes process safety allows for opportunities for employees to refuse to perform work. In a scenario where there is a potential for a catastrophic release, EPA believes it is important to take further steps to shutdown a process to prevent an accident. Rather than refusing to perform work only, steps necessary to shut down the process should be set in motion. Therefore, the Agency is deleting the change noted below from 40 CFR 68.83(d) to ensure that potentially imminent catastrophic releases are followed through with properly. The basis for including stop work authorities in the employee participation plan is to enhance authorities already provided to employees under the rule.

After review of comments, EPA maintains that it is important to ensure facilities' employees have authorities to manage unsafe work as they are one of the last lines of defense to protect human health and the environment from a catastrophic release. EPA, however, does agree with some recommendations offered in the comments to enhance the provision. Therefore, EPA is finalizing the proposed provision with the following modifications as discussed above:

- Removing from 40 CFR 68.83(d) the requirement to document and respond in writing within 30 days of the stop work authority being exercised.
- Removing from 40 CFR 68.83(d) the stop work criterion allowing an employee to refuse to perform a task when doing so could reasonably result in a catastrophic release.

- Revising 40 CFR 68.83(d) so that the two remaining stop work criteria specifically apply to those employees knowledgeable in the process and their representatives.

c. Accident and Non-Compliance Reporting, 40 CFR 68.62(b) and 68.83(e)

i. Comments

EPA received comments supporting, opposing, and suggesting improvements to the accident and non-compliance reporting provision. One commenter supported EPA's proposal to require an anonymous reporting mechanism. The commenter stated that owners and operators should be required to make all employee participation plans and RMPs accessible and also should be required to provide annual training, at minimum, to facility employees. One of the labor commenters who supported the provision in principle also expressed concern that the language proposed does not adequately specify what the reporting process should be. The commenter also stated that the provision is of limited value since an employee could report anonymously without a formal process. The commenter likewise stated that the provision is restrictive since, as written, the requirement excludes reporting in situations where the reporter does not wish to remain anonymous. Although a couple of commenters agreed that it is important that employees can voice concern without fear of repercussions, these commenters stated that anonymous reports require someone to judge the validity of the report. Some of the industry commenters also stated that anonymous reports could create a burden. The commenters expressed further concern that, for example, reports could be filed by misinformed persons, thus necessitating the development of methods and time frames to determine the credibility of reports as well as when appropriate action should be taken. One of the commenters stated that a better approach is to allow RMP-regulated entities to continue efforts to improve safety cultures,

strengthen safety teams, and foster employee communication in lieu of expending resources on anonymous reporting features.

ii. EPA Responses

EPA does not expect to see a "one-size fits-all" plan developed by sources for reporting areas of non-compliance. Some RMP facilities are less complex, operating with a handful of employees, while other RMP facilities have very complex processes that involve hundreds of employees. Like other provisions of the RMP regulation, the employee participation provisions allow facility owners and operators the flexibility to exercise reasonable judgement in determining how to best engage their employees and make them aware of their facility's efforts to apply the RMP rule to process operations. In the absence of a more specific performance standard like RAGAGEP or a specific direction, the RMP rule relies on the reasonable judgments and efforts of regulated entities in designing compliance programs that are aimed at preventing or mitigating accidental releases. EPA agrees with commenters that it is useful for individual RMP facility owners and operators to continually improve their efforts to enhance safety cultures, strengthen safety teams, and foster employee communication. EPA also agrees that the most effective programs probably already comply with most aspects of the provision. EPA believes that sources should create a welcoming atmosphere for employees to discuss safety concerns internally. However, commenters, particularly commenters from labor organizations who supported the provision, stated that this is not always the case. Therefore, EPA maintains that this provision is necessary to establish a minimum standard for conduct. To ensure a consistent understanding of EPA's expectations for this provision, modifications to the provision are discussed below.

To clarify EPA's intent in the proposal, EPA is specifically defining in this final rule that the process developed to report noncompliance must detail how to report to the owner or operator and/or EPA. It is understandable that in some instances employees will feel more comfortable reporting to one or the other entity (or both), which will be up to the reporter, but the details provided in the plan should provide clear instructions for how to report to both entities. Reporting areas of non-compliance to the owner or operator allows employers to become aware of areas of concern and/or opportunities to improve process safety. It is expected that validating reports will not impose a heavy burden on the owner or operator as they should already be familiar with their level of compliance with the rule through regular compliance monitoring activities, such as triennial compliance audits. While EPA is not prescribing details of how a facility needs to follow-up with the report, the owner or operator will be required to at least maintain a record of the report. EPA believes it is in the owner or operator's best interest for the necessary follow-up to address employees' process safety concerns and/or areas where the owner or operator may have fallen short on compliance with the rule. When an employer is engaged first and does not resolve an issue, it is expected that the next step for reporting noncompliance will be to report to EPA. Reporting areas of non-compliance to EPA[101] will allow the Agency's Office of Enforcement and Compliance Assurance to determine the validity of the report received through appropriate levels of follow-up, investigation, and enforcement, if necessary.

Regarding anonymous reporting, EPA recognizes both the concern for anonymity and the desire from employees wanting to identify themselves as the reporter. EPA believes this option

[101] Some EPA resources to report RMP non-compliance include: *https://echo.epa.gov/report-environmental-violations*, *https://www.epa.gov/rmp/epa-regional-rmp-contacts*.

to remain anonymous or not will be particularly useful if there are additional follow-up steps that the reporter and or the owner/operator must take in order to resolve an issue.

Regarding the concern that reporting could create a burden or be performed by misinformed employees, EPA notes that the current Program 3 employee participation provisions under 40 CFR 68.83 already provide employees access to all RMP-related information. The new requirement for Program 2 processes under 40 CFR 68.62(c) will allow this as well. However, EPA is concerned that some sources may provide RMP-related information to their employees without providing details or explanations of the information. EPA agrees with comments stating that workers without required information and training may be unaware of their opportunities and authorities to participate in hazard prevention, and that the lack of worker understanding will inevitably lead to less participation. Therefore, to ensure that employees are regularly reminded that RMP information is available to them, owners and operators of all Program 2 and Program 3 processes will be required to provide an annual written or electronic notice to employees indicating that RMP information is available.

The Agency also believes that management, employees, and their representatives involved in the process could benefit from training on employee participation plans to ensure these facility stakeholders are aware of the information included in the plans or otherwise available. A more thorough understanding through the training may help reduce unvalidated non-compliance reports, some of which commenters indicated could become a concern associated with this noncompliance reporting provision. Ultimately EPA expects training on employee participation plans will help employees identify, and owners and operators correct, issues that may prevent and mitigate accidents.

After review of EPA's preferred approach, options, and comments, the Agency maintains that workers can play an important role in promoting process safety through reporting noncompliance. EPA, however, does agree with some recommendations offered in the comments to enhance the clarity of the provision. Therefore, EPA is finalizing the proposed provision with the following modifications as previously discussed:

- Revising 40 CFR 68.62(b) and 68.83(e) to specify the report methods to either or both the owner and operator and EPA.
- Revising 40 CFR 68.62(b) and 68.83(e) to let anonymity be decided by the reporter.
- Adding a provision to 40 CFR 68.62(b) and 68.83(e) to require the owner or operator to keep a written record of the report of noncompliance.
- Adding a provision to 40 CFR 68.62(a)(1) and 68.83(a)(1) for the owner or operator to provide an annual written or electronic notice to employees indicating RMP information is available.
- Adding a provision to 40 CFR 68.62(a)(2) and 68.83(a)(2) for training on the written employee participation plan.

VI. Emergency Response

A. Summary of Proposed Rulemaking

1. Community Emergency Response Plan Amplifications, 40 CFR 68.90(b), 40 CFR 68.95(c)

EPA proposed to revise 40 CFR 68.90(b)(1) and 68.95(c), which are applicable to non-responding and responding facilities respectively, to detail the required elements of the EPCRA community emergency response plan in RMP regulatory text. The proposed RMP regulatory text indicated that the EPCRA community emergency response plan should include: (1) Identification

of facilities within the emergency planning district; (2) identification of routes likely to be used for the transportation of substances on the list of extremely hazardous substances (EHS); (3) identification of additional facilities contributing or subjected to additional risk due to their proximity to facilities, such as hospitals or natural gas facilities; (4) methods and procedures to be followed by facility owners and operators and local emergency and medical personnel to respond to any release of such substances; (5) designation of a community emergency coordinator and facility emergency coordinators, who shall make determinations necessary to implement the plan; (6) procedures providing reliable, effective, and timely notification by the facility emergency coordinators and the community emergency coordinator to persons designated in the emergency plan, and to the public, that a release has occurred; (7) methods for determining the occurrence of a release, and the area or population likely to be affected by such release; (8) description of emergency equipment and facilities in the community and at each facility in the community, as well as an identification of the persons responsible for such equipment and facilities; (9) evacuation plans, including provisions for a precautionary evacuation and alternative traffic routes; (10) training programs, including schedules for training of local emergency response and medical personnel; and (11) methods and schedules for exercising the emergency plan. The proposed revisions also included that upon request of the LEPC or emergency response officials, the owner or operator would be required to promptly provide to the local emergency response officials information necessary for developing and implementing the community emergency response plan.

2. Community Notification of RMP Accidents, 40 CFR 68.90(b), 40 CFR 68.95(a), (c)

EPA proposed to revise and add provisions to 40 CFR 68.90(b), paragraphs (b)(3) and (b)(6) respectively, pertaining to non-responding facility designation qualifications. Revised

proposed paragraph (b)(3) would have required the owner or operator to provide to emergency responders timely data and information detailing the current understanding and best estimates of the nature of a release when there is a need for a response. Proposed paragraph (b)(6) would require the owner or operator to maintain and implement, as necessary, procedures for informing the public and the appropriate Federal, State, and local emergency response agencies about accidental releases of RMP-regulated substances. Proposed paragraph (b)(6) would additionally require the owner or operator to ensure that a community notification system is in place to warn the public within the area potentially threatened by the release.

EPA proposed to revise 40 CFR 68.95, which is applicable to responding facilities, by revising paragraphs (a)(1)(i) and (c). Revised proposed paragraph (a)(1)(i) would have required the owner or operator to include in the procedures for informing the public about releases, assurance that a community notification system is in place to warn the public within the area threatened by the release. Revised proposed paragraph (c) would additionally require the emergency response plan to include providing timely data and information detailing the current understanding and best estimates of the nature of the release when a release occurs.

3. Emergency Response Exercise Program, 40 CFR 68.96(b)

EPA proposed to revise 40 CFR 68.96, which is applicable to responding facilities, by revising the frequency requirement for field exercises under (b)(1)(i) and the documentation requirements for field and tabletop exercises under (b)(3). Proposed paragraph (b)(1)(i) would require the owner or operator to conduct a field exercise at least once every 10 years unless the appropriate Federal, State, and local emergency response agencies agree in writing that such frequency is impractical. If emergency response agencies agree, the owner or operator shall consult with emergency response officials to establish an alternate appropriate frequency for

field exercises. Proposed paragraph (b)(3) would require the field and tabletop exercise reports to include a description of the exercise scenario, names and organizations of each participant, an evaluation of the exercise results including lessons learned, recommendations for improvement or revisions to the emergency response exercise program and emergency response program, and a schedule to promptly address and resolve recommendations.

B. Summary of Final Rule

EPA is not finalizing the proposed community emergency response plan amplifications at 40 CFR 68.90(b)(1) and 68.95(c).

EPA is finalizing the proposed provisions for community notification of RMP accidents and the emergency response exercise program with the following modifications:

- Revising 40 CFR 68.90(b)(3) and 68.95(c) to allow other existing notification mechanisms or regulations that satisfy the notification requirements, if applicable.
- Revising 40 CFR 68.90(b)(6) and 68.95(a)(1)(i) to specify that the owner or operator should *partner* with local response agencies to ensure a community notification system is in place, and to document the collaboration.
- Removing from 40 CFR 68.96(b)(1)(i) the requirement that Federal and State agencies require consultation when determining a field exercise frequency less than once every 10 years.
- Revising 40 CFR 68.95(a)(1)(i) to add the word "potentially" as a clarifying edit.

C. Discussion of Comments

1. Community Emergency Response Plan Amplifications, 40 CFR 68.90(b), 40 CFR 68.95(c)

a. Comments

EPA received comments supporting and opposing the proposal to revise 40 CFR 68.90(b)(1) and 40 CFR 68.95(c) to detail the required elements of the EPCRA community response plan in RMP regulatory text. Some commenters in support of the amplifications indicated that it is important to reaffirm and ensure coordination with the EPCRA emergency response planning teams. Another commenter mentioned that the use of "should" in the community response plan renders the entire section as voluntary while the commenter suggested that the section should instead be required. Some commenters stated that EPA should not expand the regulatory language. One commenter expressed concern that it is not reasonable to expect facilities to ensure that plans include the features in proposed 40 CFR 68.90(b). The same commenter also asked for greater clarity over the use of the word "should," rather than "must." One commenter noted that it is inappropriate for EPA to put the responsibility of the community plan on the RMP facility. Some commenters expressed confusion over the requirement that RMP facilities assume responsibility for an emergency plan only if the LEPC's current plan is inadequate. These commenters further explained that this places the burden of being held accountable on the RMP facility for the adequacy of a plan that they have no control over.

b. EPA Responses

EPA notes that the modification to 40 CFR 68.90(b)(1) and 68.95(c) in the proposed rule was intended only to include details of EPCRA's community emergency response plan requirements into RMP regulatory text for reference, not to ultimately transfer plan development and implementation responsibility to RMP facilities. Rather, EPA's goal was to make it simpler for RMP-regulated facilities to be knowledgeable about the components of the community emergency response plan to ensure that they understand how their facility's processes could

impact the larger community emergency response plan and understand the facility's role in coordination of the required plan provisions. While this proposed modification did not include a new regulatory requirement, EPA acknowledges the confusion expressed by including EPCRA requirements in the RMP regulatory text. Therefore, after reviewing the comments, the Agency has decided not to finalize this proposed regulatory text modification. EPA notes that 40 CFR 68.90(b)(1) and 68.95(c) will continue to reference the statutory citation for the EPCRA community response plan, 42 U.S.C. 11003. EPA encourages owners and operators to be familiar with all the elements of the community emergency response plan to effectively consider the potential impacts of a chemical release from their facility on the community.

2. Community Notification of RMP Accidents, 40 CFR 68.90(b), 40 CFR 68.95(a), (c)

Providing Timely Data to First Responders

a. Comments

Some commenters supported the proposed provision for facility owners and operators to provide timely release data to local first responders when there is a need for such response. One commenter in support indicated that, while it is true that LEPCs and local first responders can utilize tools to perform analyses outside the fence line, the facility's own first-hand information will improve this process and increase first responder awareness and safety during a response. Some supporters also offered modifications to the provision. One commenter suggested that EPA require a follow-up notice of the actual final release information in the short-term in addition to the public meeting requirement. Similarly, another commenter pointed out that real-time air quality data should be made available to the public and not just select officials. Some commenters did not support the proposed provision. A few commenters stated that the requirement to provide "necessary entities" with "accurate and timely data" is duplicative and

vague. These commenters urged EPA to remove this provision. Commenters added that facilities are already required to notify and provide information of certain releases to the National Response Center (NRC), State Emergency Response Commissions (SERCs), and LEPCs under EPCRA and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

b. EPA Responses

EPA disagrees that the provision is duplicative and vague. EPA believes that the provision offers the appropriate level of flexibility that may be needed during accidental release events. As stated in the proposal, the expectation for this provision is for owners and operators to provide initial information about their release to local responders as soon as possible, and to provide more accurate data or correct erroneous data that had been previously relayed when new information is available. EPA acknowledges that the time to gather and update release information can vary widely depending on the circumstances, extent and consequences of the release, and the status of individuals conducting the investigation during the accident. EPA also acknowledges that local responders may be different entities (e.g., fire department, Hazmat team, police, etc.) depending on the community. The initial and follow-up information required by this provision will help facilitate proper communication among responders and the facility to ensure the appropriate type and level of response is provided during a release.

While EPA encourages follow-up communication with local responders and the public after conclusion of response activities, EPA does not believe that an interim written follow-up-notice of the actual final release information should be required after the response ends. EPA believes that the public meeting requirement at 40 CFR 68.210 and the five-year accident history requirement at 40 CFR 68.42 provide adequate time for the facility to gather and finalize

information to share with the public. The Agency notes that sources are required to update their accident histories in their RMPs within 6 months of an RMP-reportable accident (40 CFR 68.195(a)). Additionally, many States separately require follow-up release reporting within a short time after response activities are concluded (e.g., 30 days), and this information may be publicly available.

Regarding providing real time air quality data to the public, EPA acknowledges the need to consider expanding fenceline monitoring requirements for RMP-regulated facilities to provide real time data to local responders and the public. EPA took comment on this in the proposal and is reviewing the comments received in consideration for a future rulemaking.

In response to the comment that facilities are already required to notify and provide information about imminent releases to the NRC, SERCs, and LEPCs under CERCLA and EPCRA, EPA has amended the language in the final rule to allow existing release notification requirements to satisfy this provision, if applicable. EPA acknowledges that EPCRA section 304, CERCLA section 103, and the CSB have similar Federal reporting requirements, and that there may also be State-only requirements for release notification and reporting that could meet this requirement. Therefore, EPA believes the amendment to this provision can help prevent any undue burden in complying with multiple requirements when a chemical release occurs. EPA believes this provision is particularly useful in closing regulatory gaps for chemical release notification where other statutory requirements do not apply. For example, reporting under EPCRA section 304 is required only to the SERC and LEPC, and reporting under CERCLA section 103 is required only to the NRC. Additionally, not all RMP regulated substances are EPCRA extremely hazardous substances and/or CERCLA hazardous substances (e.g., propane, butane, pentane, and hydrogen are regulated under RMP, but not under EPCRA section 304 or

CERCLA section 103); thus, while there might be some overlap, some chemicals will require only Federal release reporting under RMP.

After review of comments, EPA maintains that the requirement to provide timely release data to responders in the case of an accidental release will help ensure that local responders have sufficient information to make the best decision on whether community notification is appropriate. Furthermore, EPA does agree with the recommendation offered in the comments to prevent undue burden in complying with multiple requirements when a chemical release occurs. EPA is therefore finalizing the proposed provision with the following modification as previously discussed—revising the proposed provisions for 40 CFR 68.90(b)(3) and 68.95(c) to allow existing notification mechanisms or regulations to satisfy the RMP release notification requirements if applicable.

Ensure a Community Notification System is in Place

a. Comments

Some commenters supported the provision that facilities ensure a community notification system is in place. One commenter explained that current notification procedures are inadequate, with some community members not learning about a release until hours afterward. One commenter noted that while they support the presence of State and/or local alerting authorities, EPA should consider that this notification system may not be appropriate for all communities, especially those that are dealing with systemic barriers to safety and justice. A few commenters suggested that, to remove the burden on facilities to ensure the notification systems of local responders, EPA should change "and ensure that" to "and *partner* to ensure that."

Some commenters opposed the language requiring RMP facilities to be responsible for community warning systems and notification of emergencies to the local community. Several

commenters stated the requirements of public notification are better suited to third parties, LEPCs, and government agencies already tasked with this coordination. A couple of the commenters stated these agencies have the resources and infrastructure needed for disseminating emergency information to a community and coordinating local response. A few commenters noted that while Integrated Public Alert & Warning Systems (IPAWS) are in use in communities nationwide, many facilities are not in areas with these systems. Furthermore, a few commenters expressed that neither the burden of ensuring IPAWS capabilities nor providing direct notification to the public should fall on RMP facilities. Another commenter noted that IPAWS does not accept information from private entities, only government entities. One commenter stated that while they support the need for a community notification system, they believe EPA should ensure that RMP facilities covered under this rule are in areas already covered by the IPAWS and, if so, re-evaluate how this may impact local governments and their ability to allocate resources.

b. EPA Responses

In response to comments that the language in this provision should be changed from "and ensure that" to "and *partner* to ensure that" a community notification system is in place, EPA has amended the language as suggested. It was not EPA's intention in the proposed provision to transfer inherent government responsibilities to RMP regulated facilities. Rather, EPA's intention for this provision has always been for facility owners and operators to work with the local responders to ensure that, during a release, a notification system is in place that will notify the public of the impending situation. The Agency expects that in most cases government emergency response officials will be the entities providing the notice. However, for the purposes of this rule, regulated facilities which have accidental releases are responsible for ensuring a

prompt emergency response to any release at their facility's covered processes in order to protect human health and the environment. As discussed in the proposal, if local public responders are not capable of providing such a response, the owner or operator is ultimately responsible for ensuring effective emergency response to any release at their facility occurs.

EPA expects the partnership between facility owners and operators and emergency response officials to ensure a public notification system is in place should occur at least during annual coordination discussions under 40 CFR 68.93. Under 40 CFR 68.93, owners and operators are required, among others, to annually coordinate response needs with local emergency planning and response organizations to determine how the facility is addressed in the community emergency response plan. A component of the community emergency response plan is public notification of chemical releases, and it is expected that this component will be discussed and documented by the facility owner or operator as part of the annual coordination obligations.

With regard to specific comments about IPAWS, EPA acknowledges that while IPAWS is not currently operational in all communities, it could be. IPAWS is available in all States statewide, and, if not currently available in certain local communities, it can be made available if the local designated government authorities apply to be an Alerting Authority.[102] While IPAWS is a well-known option as a notification system compliant with this provision, EPA is not requiring the use of this specific system to be the one solely used to notify the public. EPA encourages facility owners and operators to work with response agencies to determine how best to alert a potentially affected community about impending chemical releases.

[102]A jurisdiction with the designated authority to alert and warn the public when there is an impending natural or human-made disaster, threat, or dangerous or missing person; *https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system/public-safety-officials/sign-up.*

After review of comments, EPA maintains that the requirement to ensure that, during a release, all necessary resources are in place for a community notification system to function and operate as expected will help protect the public from accidental releases. Furthermore, EPA agrees with the recommendation offered in the comments to enhance the provision. EPA is therefore finalizing the proposed provision with the following modification as previously discussed—revising the proposed provisions for 40 CFR 68.90(b)(6) and 68.95(a)(1)(i) to specify that the owner or operator should partner with local response agencies to ensure a community notification system is in place and to document the collaboration.

3. Emergency Response Exercises, 40 CFR 68.96(b)

Field Exercises

a. Comments

Several commenters expressed support for the 10-year timeline for conducting field exercises. One of the commenters noted that the timeline would allow local responders to maintain capabilities and familiarity with facility processes for responding to accidental releases. The same commenters added that the timeline also would allow industry to obtain appropriate staff, experts, and funds. A few commenters particularly expressed support for EPA's efforts to encourage and require facilities to coordinate with LEPCs in circumstances where it is practical. Other commenters opposed the proposed provision, with some offering suggestions for improvement. Several commenters noted that EPA should recognize that not every location has a functioning LEPC that can coordinate field exercises with facilities and that clear carve outs should be established. The commenters suggested that EPA allow facilities to demonstrate a good faith effort to coordinate with LEPCs or demonstrate the absence of an LEPC as exemptions from this requirement. A few commenters expressed concerns regarding the

proposed requirement for State and Federal approval of a change in frequency. The commenters noted that it would be inappropriate for EPA to provide Federal and State officials veto power over scheduling an exercise for which they have no required role. One of the commenters recommended that EPA remove the reference to Federal and State agencies, to clarify that RMP facilities do not need to obtain approval from Federal or State agencies if the local emergency responders have identified the frequency of an exercise is impractical.

b. EPA Responses

EPA agrees with comments that describe the varying capabilities of LEPCs and responding agencies and believes the approach the Agency offers supports those comments. The Agency believes the frequency exemption provided, which allows facilities and communities that do not have resources to complete field exercises every 10 years to work together to determine a lesser frequency, is more useful than the Agency being more prescriptive about when the frequency does not apply. EPA believes various communities have different concerns as to why they would need to conduct field exercises less frequently and therefore does not expect a one-size fits all approach to be appropriate in accommodating those various circumstances. Additionally, EPA understands that there may be cases where local emergency response agencies are unable or unwilling to coordinate with a regulated facility on exercise frequencies. In such cases, the owner or operator may establish appropriate exercise frequencies and plans on their own, provided they meet the minimum requirements set forth in 40 CFR 68.96. The final rule will not specifically require the owner or operator to document unsuccessful coordination attempts, but EPA believes it will be in the owner or operator's best interest to do so and allow the owner or operator to demonstrate their good faith efforts for consultation in the event that an implementing agency requests this information.

In response to comments that EPA should remove the reference to consultation with Federal and State agencies when developing field exercise frequencies, EPA has amended the language to reflect that the consultation required for this provision need only be with local emergency responding agencies. EPA acknowledges that the emergency response exercise program provisions under 40 CFR 68.96(b), only require coordination with local public emergency response officials, and wants to remain consistent with activities that most likely will occur on the local level.

Therefore, EPA is finalizing the requirement for facility owners and operators to coordinate with local emergency response officials to establish an appropriate frequency for field exercises at a minimum at least once every ten years unless the appropriate local emergency response agencies agree in writing that such frequency is impractical. EPA is not finalizing the requirement for Federal and State agencies to be consulted when coordinating the 10-year (or other determined) frequency.

Emergency Exercise Reports

a. Comments

Several commenters expressed their support for the requirement that the current recommended field and tabletop exercise evaluation report components be mandatory. Other commenters opposed the provision. One of the commenters noted that EPA failed to consider the paperwork burden, hours and costs associated with requiring the reporting of such information. One commenter mentioned that, in 2019, EPA recognized that making the reporting requirements non-mandatory would reduce the regulatory burden and allow emergency response personnel the flexibility to decide which exercise documentation would be most appropriate for the facility and community. The commenter urged EPA to retain this flexibility and not add this

requirement to the existing RMP rule. Another commenter noted that the proposed post-exercise reporting requirements provide little value to the program.

b. EPA Responses

EPA disagrees that the requirement of this provision—to make the scope and documentation requirements of the exercise evaluation report mandatory—is overly burdensome. While the elements of the evaluation report were not previously mandatory, there was already a requirement to develop a report. In most cases, for those previously voluntary report elements, particularly lessons learned and recommendations for improvement, EPA had expected these to be included in the report, as they are advantageous in assuring that over time emergency response efforts improved. Other report elements such as names and organizations of each participant are expected to be collected using low-cost methods, such as sign-in sheets or registration websites. Local emergency response organizations participating in exercises will also likely be able to assist the owner or operator in collecting and providing this information. EPA has updated the RIA to consider the minimal paperwork hours and costs associated with this provision.

The Agency acknowledges that it had previously stated in the 2019 reconsideration rule that the scope and documentation provisions left as discretionary would allow owners and operators to coordinate with local responders to design exercises that are most suitable for their own situations. Different facilities use a variety of emergency response equipment types and may have many different actions specified in their emergency response plans. However, as discussed in the proposal, EPA now finds it beneficial to provide consistency between exercise evaluation and incident investigation documentation requirements, as incident investigation reports can be used to satisfy response exercise evaluation report requirements under the current rule. Since

EPA cannot anticipate all variations of incidents that may occur, EPA also cannot anticipate all variations of appropriate exercises. The current provision for incident investigation reports under 40 CFR 68.60 and 68.81 identifies general topics that must be included in the report but does not contain further prescriptive requirements about how those topics need to be addressed. Similarly, so will similar general elements guide the content of exercise evaluation reports. The flexibility in both provisions allows participants to develop an evaluation that owners, operators, and responders can learn from.

Upon consideration of comments, EPA is finalizing the provision to require mandatory reporting for exercise evaluation reports as proposed.

VII. Information Availability

A. Summary of Proposed Rulemaking

EPA proposed to amend 40 CFR 68.210 by adding new paragraphs (d), (e), and (f). Proposed 40 CFR 68.210(d) required the owner or operator of a stationary source to provide, upon request by any member of the public residing within six miles of the stationary source, certain chemical hazard information for all regulated processes in the language requested. EPA proposed to require the owner or operator to provide, as applicable:

- Names of regulated substances held in a process.
- Safety Data Sheets (SDS) for all regulated substances at the facility.
- The facility's five-year accident history required under 40 CFR 68.42.
- Emergency response program information concerning the source's compliance with 40 CFR 68.10(f)(3) and the emergency response provisions of subpart E, as applicable, including: (1) Whether the source is a responding stationary source or a non-responding stationary source; (2) name and phone number of local emergency

response organizations with which the owner or operator last coordinated emergency response efforts, pursuant to 40 CFR 68.180; and (3) for sources subject to 40 CFR 68.95, procedures for informing the public and local emergency response agencies about accidental releases.

- A list of scheduled exercises required under 40 CFR 68.96.
- LEPC contact information, including LEPC name, phone number, and web address as available.

Proposed 40 CFR 68.210(e) required the owner or operator to provide ongoing notification on a company website, social media platforms, or through other publicly accessible means that:

- Information specified in proposed 40 CFR 68.210(d) is available to the public residing within six miles of the stationary source upon request. This notification is required to: (1) Specify the information elements, identified in 40 CFR 68.210(b), that can be requested; and (2) provide instructions for how to request the information.
- Identifies where to access information on community preparedness, if available, including shelter-in-place and evacuation procedures.

Proposed 40 CFR 68.210(f) required the owner or operator to provide the requested information under proposed paragraph 40 CFR 68.210(d) within 45 days of receiving a request.

In addition to the proposed approach to this information availability provision, EPA also sought feedback on if the 6-mile radius for requesting information is appropriate, or if other alternative distances would be more suitable. The Agency also requested specific information on the increased likelihood of security threats arising from dissemination of this information, and

which data elements, or combinations of elements, may pose a security risk if released to the public.

B. Summary of Final Rule

EPA is finalizing 40 CFR 68.210 with changes to address public comments, including potential security concerns. Under 40 CFR 68.210(d), the final rule:

- Expands the population eligible to submit information requests to include members of the public residing, working, or spending significant time in a 6-mile radius from the fenceline of the facility, as opposed to just those residing in a 6-mile radius.
- Includes a verification process to confirm that members of the public submitting information requests reside, work, or spend significant time in the 6-mile radius, and a recordkeeping component of the requestors.
- Limits the language translations offered for information available upon request to at least two major languages used in the community (other than English), while the proposed rule would have required the owner or operator of a stationary source to provide information in any language requested.
- Excludes dates of exercises occurring within one year of the date of request.
- Expands the list of information required to be available upon request to include declined recommendations reported under 40 CFR 68.170(e)(7) and 40 CFR 68.175(e)(7)-(9).

C. Discussion of Comments and Basis for Final Rule Provisions

1. Requirement to Make Information Available to the Public

EPA's Proposed Approach

a. Comments

Several commenters generally supported increasing information sharing and provided further recommendations in addition to the provisions outlined in the proposed rule.

Several other commenters generally opposed the proposed information availability requirements, including those who opposed the provision because it may create unintended community anxiety. Several commenters noted that due to the complex technical information such as SDSs, it will have limited value or use to the public, and instead EPA's efforts should focus on improving the LEPC's ability to interpret the information. One commenter noted that the LEPC should be provided with relevant chemical hazard information, which then could be shared with local citizens. A commenter stated that the general premise that making the RMP more accessible to the public will encourage facility operators to be more safety-conscious via the imposition of "community pressure and oversight" is misguided. The commenter added that requiring members of the public to "pull" the information from the facility does little to promote proactive safety and accident/risk reduction at the fencelines as that public member must first have some idea that a facility presents a risk.

Several commenters indicated that the proposed information availability requirements would be burdensome for facilities. A few commenters stated that EPA underestimates the costs to deliver community information requests. One commenter noted that facilities may not have the expertise for communicating the information as envisioned by EPA. One commenter stated that the requirement to disclose information would potentially make facilities with covered processes the target of high volumes of requests submitted by individuals or groups.

A few commenters noted that the proposed requirements would be duplicative of EPCRA. Some commenters recommended EPA consider existing programs that already require facilities to report specific information.

b. EPA Responses

EPA continues to believe that providing chemical hazard information to the general public will allow people that live or work near a regulated facility to improve their awareness of risks to the community and to be prepared to protect themselves in the event of an accidental release. The public's ability to participate in emergency planning and readiness is enhanced by being better informed about accident history, types of chemicals present, and how to interact with the stationary source. In drafting both the proposed and final rule, EPA has been selective in identifying what information a source must make available; for example, the Agency has not required the facility to provide an entire RMP to the public.

The Agency disagrees that community involvement in prevention and response planning, which in effect is a form of oversight and may be perceived as "pressure," does not have value in minimizing the likelihood of accidental releases and in improving the responses to such releases. The statute itself provides support for the Agency's position by generally making RMPs available to the public, subject to limited restrictions (42 U.S.C. 7414(c), 42 U.S.C. 7412(r)(7)(H)). In the 2022 SCCAP proposed rule, the Agency discussed its multiple means of access to information about a source to facilitate involvement about the risks a source presents (87 FR 53602). The Agency believes every RMP regulated source presents some level of risk, as each regulated source stores and manages toxic or flammable substances which may be accidentally released. Having the source provide the information set out in 40 CFR 68.210 directly to the public within the confines of the final rule promotes accident prevention and response by facilitating public participation at the local level.

Under CAA section 112(r)(7)(H)(ii)(I)(bb), EPA conducted a benefits assessment in 2000, describing the benefits of providing community access to OCA information specifically

but also addressing the benefits of public disclosure of risk management plan information. EPA found that public disclosure of risk management plan information would likely lead to a reduction in the number and severity of accidents.[103] It also found that comparisons between facilities, processes and industries would likely lead industry to make changes and would stimulate dialogue among facilities, the public, and local officials to reduce chemical accident risks. The approach taken in this final rule builds upon the planning approach of EPCRA and EPA studies of the value of "right to know" in emergencies.

While EPA acknowledges the potential for "community anxiety" as a result from the affected public having easier access to information about safety risks, public participation in the pre-rulemaking listening sessions and during the public hearings in this rulemaking demonstrate that anxiety among the public near facilities already plainly exists as a result of the more cumbersome disclosure authorizations of the current rule. The Agency expects a more informed and involved public, as a result of this final rule, to have less fear of the unknown.

In response to commenters recommending that the facility share the information with the LEPC, which would then be responsible for sharing the information with interested members of the public, EPA notes analysis of active facility risk management plan submissions demonstrates that 10 percent of active facilities have not provided the names or information about their LEPCs. Without further information as to why facilities left this portion of the risk management plan submission blank, it is possible that LEPCs may not exist for those facilities, that the LEPC may have existed but is inactive, or that the facility is not in communication with its LEPC. EPA routinely receives Freedom of Information Act (FOIA) requests for OCA and non-OCA versions

[103] EPA. April 18, 2000. Assessment of the incentives created by public disclosure of off-site consequence analysis information for reduction in risk of accidental releases, at 2.

of the risk management plan database from local and State emergency response entities, which may indicate that local emergency response entities also have difficulty in obtaining this information from facilities. Therefore, EPA believes that providing information solely to LEPCs would not be sufficient or improve safety as effectively as additionally requiring that information be provided directly to the affected public.

Regarding comments on the burden of the information availability requirements, EPA notes that other statutes and regulatory programs, or other provisions of the RMP, require the stationary source to assemble the information that the rule makes available upon request (e.g., accident history, SDSs, and aspects of the emergency response program). Thus, the burden of making this information directly available from the source is minimal.

Regarding comments stating that the proposed requirements are duplicative of existing reporting requirements, EPA believes, for the reasons already stated, that this information should be more easily accessible to the public than the existing approaches to access information under EPCRA and other programs/regulations.

Translation Requirements

A commenter stated that the information should be provided in plain language and in multiple languages. Another commenter stated it is difficult for facilities to translate technical information into multiple languages. A couple of commenters noted that the proposed translation requirements go beyond EPA authority and would be burdensome and costly.

The final rule requires that language translations be offered in at least two other major languages in the community. EPA expects owners and operators to use the most recent Census

Language Use data,[104] or other recent authoritative information[105], to determine the two major languages spoken in a comparable size designation to the six-mile or worst-case release scenario distance radius of their facility. EPA believes this will provide the vast majority of the surrounding community with the information requested and account for language barriers while minimizing burden to facilities. Requiring translation in up to two of the major non-English languages of the community reflects a balance of the right-to-know purposes of CAA section 112(r)(7)(B)(iii) with the time and financial burden of providing such translations. The Agency believes community involvement is integral to a well-functioning accident prevention program, and the translation requirement promotes accomplishing this objective.[106]

Notification Requirements

One commenter noted that the information available to the public is meaningless if the public does not know it exists. Therefore, the commenter suggested that EPA require facilities to provide notice to communities within six miles that they have the right to request this information.

EPA agrees with the commenter that the information availability requirements are most impactful if the public is aware of the availability of the information. Therefore, EPA is finalizing the proposed requirements that the owner or operator of the facility provide ongoing notification on either a company web site, social media platforms, or through other publicly

[104] *https://data.census.gov/table?t=Language+Spoken+at+Home*

[105] *https://www.lep.gov/language-access-planning*

[106] While not the basis of this provision, these language translation requirements advance the policies in Executive Orders 13166 and 14096: https://www.federalregister.gov/documents/2023/04/26/2023-08955/revitalizing-our-nations-commitment-to-environmental-justice-for-all; https://www.federalregister.gov/documents/2000/08/16/00-20938/improving-access-to-services-for-persons-with-limited-english-proficiency

accessible means, that facility information is directly available to the public within six miles upon request.

45-Day Disclosure Timeline

A few commenters suggested EPA shorten the required response time. A couple of commenters specifically expressed concern that the 45-day period to receive information once requested is too long for people to wait for that urgently needed information.

EPA is finalizing the 40 CFR 68.210(g) requirement that the facility owner or operator provide the information under 40 CFR 68.210(d) to the requester within 45 days of receiving a request. EPA selected 45 days because that timeframe is consistent with the requirement for the public availability provision of facility chemical inventory information (*i.e.,* "Tier II information") under 40 CFR 312(e)(3)(D) of EPCRA, which states, "a State emergency response commission or LEPC shall respond to a request for Tier II information under this paragraph no later than 45 days after the date of receipt of the request." EPA believes the 45-day timeline appropriately balances the burden imposed on facilities to keep chemical hazard information updated and the need to provide the public with timely access to this information. EPA encourages facilities to update their chemical hazard information as needed to ensure that accurate information can be made available to the requester within the required timeframe.

Suggestions for EPA to Disclose Facility Information

Many commenters suggested that EPA create an online database to contain information from facilities. A couple of commenters stated that it is essential for EPA to take prompt action to provide publicly accessible information on RMP facility hazards and safety plans on the Agency's website. Similarly, a few commenters stated that EPA should develop, maintain, and update a public, multilingual online database containing non-protected RMP information.

By policy, EPA has restricted access to the RMP database, even though only a portion of the database is restricted by CAA section 112(r)(7)(H) and its implementing regulations in 40 CFR part 1400. As described in the 2022 SCCAP proposed rule, EPA intends to, at a prospective date, begin publishing non-OCA risk management plan data annually, less any CAA section 112(r)(7)(H) protected sensitive information (87 FR 53602). The discussion in the proposed rule was intended to highlight some of the issues that are relevant to relaxing restrictions on data availability.

Environmental Justice and Fenceline Communities

Several commenters recommended EPA consider EJ and fenceline communities when developing information availability provisions, including, by championing community information as a fundamental EJ goal. One commenter suggested that EPA inform fenceline communities that they live near an RMP facility because, oftentimes, people are unaware that they live near RMP facilities.

EPA has considered impacts and risks to local communities, including communities with EJ concerns and fenceline communities throughout the rulemaking process. EPA believes that the final information availability provision makes significant improvements to provide more information to the public, including communities with EJ concerns and fenceline communities.

2. 6-Mile Radius

a. Comments

A few commenters supported EPA's proposed approach of the 6-mile radius for requesting information.

Several commenters recommended EPA abandon any geographic limitation and instead make basic emergency preparedness information commonly available to the public. One

commenter emphasized that the proposed rule violates FOIA as non-OCA RMP data are public information. The commenter noted that EPA cannot deny public access to this information. The commenter also noted that this restriction would violate 42 U.S.C. 7412(r)(7)(B), which requires EPA to provide prevention, incident detection, and response "to the greatest extent practicable." One commenter stated that the proposal's within 6-mile residency requirement creates an unnecessary obstacle to accessing information that could undermine EPA's goals to address EJ, especially as people in fenceline communities may not have a trusting relationship with government authorities, a home address, or documented status to demonstrate their residency. The commenter requested EPA eliminate the requirement that community members demonstrate they live within six miles of a facility to access information.

Several commenters suggested that the 6-mile radius lacks justification and is arbitrary. Some of the commenters expressed concerns that residents could use a PO Box within 6-miles of a facility to obtain access to and share information. Several commenters noted there are no means to retain or prevent information from being shared outside of its intended use.

Many of the commenters referenced social media and other web-based networks as means of quickly spreading sensitive information. Some commenters added that terrorists and criminals would be able to readily obtain sensitive information and could easily falsify their identity or location. Several commenters requested EPA to clarify what is meant by the requirement of a person to "reside" within six miles of a facility and how a facility will be able to verify the information.

A couple of the commenters suggested EPA build upon existing programs and safeguards, such as LEPCs, to protect sensitive chemical information instead of choosing to impose an arbitrary 6-mile threshold. One commenter added that EPA did not explain how the 6-

mile radius requirement builds on existing regulatory programs designed by Department of Homeland Security (DHS) and EPA to safeguard sensitive information. One commenter recommended that anyone requesting information should be required to complete a mandatory background check before any information is shared. Another commenter stated that EPA should not put the responsibility of vetting community members on facilities.

b. EPA Responses

EPA believes the 6-mile radius restriction to be reasonable, as 90 percent of all toxic worst-case distances to endpoints are within six miles or less, and almost all flammable worst-case distances are less than 1 mile (87 FR 53601). The 6-mile radius for being able to request information from facilities allows people in most areas potentially impacted by a worst-case scenario to have access to information while also providing a limit on widespread access to nationwide assembly of data. EPA agrees with commenters that allowing only those individuals that reside within the 6-mile radius to access information is too limited and has thus expanded the provision in the final rule to also allow members of the public working or otherwise spending significant time in the 6-mile radius to request information from a facility.

The 6-mile radius limitation also seeks to limit the potential security risk of allowing anonymous confidential access to this information to the entire public that was of concern to EPA in the 2019 reconsideration rule. This approach strikes a better balance between those security concerns and the interests of people spending significant time near facilities who could benefit from the information, including personal preparedness in the event of an accident, knowledge of potential risks and safety conditions where one lives, and more informed participation in community emergency and safety planning.

EPA is also clarifying in the final rule that the 6-mile radius is from the fenceline of the facility. EPA expects that in most cases, six miles from the fenceline is the appropriate definition, as opposed to six miles from process locations or any other location at the facility, because this consistent approach captures the wide variations of facility size, process locations and any process movement within the facility. It is also simpler to verify for the public and oversight agencies and does not require revealing of the precise location of the place in the process from which a release could occur, which may raise security concerns.

In response to comments requesting clarification on what it means for a person to "reside" within six miles of a facility, the final rule specifies that members of the public residing, working, or spending significant time in a 6-mile radius from the fenceline of the facility are able to submit information requests to a source. EPA interprets residing as occupying a dwelling (owning or renting), working as having paid employment, and spending significant time as frequently using services, volunteering, visiting with family or friends, etc.

Regarding concerns about the verification of the identity of members of the public requesting information, EPA is requiring sources to provide instructions for how to request the information, which should include the necessary verification components for the public within a 6-mile radius of the facility. Nothing in the rule requires a facility to accept a mere P.O. Box address as evidence of residence, employment, or presence within the 6-mile radius. For this final rule, EPA is also requiring owners and operators to maintain a record of the requestors. The final rule leaves substantial flexibility for facilities to design a process for obtaining verification and keeping records of requestors that allows for facilities to have a suitable, minimally burdensome process for themselves and the community. The final rule allows for a straightforward process that does not hinder the right of the public to access this information,

allows facilities to be aware who has their information, and permits oversight by implementing agencies. However, as this is a performance-based provision, just as most components of the rule, EPA recognizes that there is not a one-size fits all approach that works best for notifying the public that this information is available and verifying presence within a 6-mile radius. EPA expects facility owners and operators to notify the public that information is available in a variety of ways, such as using free or low-cost internet platforms, and social media tools that are designed for sharing information with the public. EPA also expects verification of the population within the 6-mile radius to be carried out through many methods, such as asking a member of the public to provide a utility bill for verification of residence, pay stub for verification of employment, or specific documentation to verify significant time spent within the 6-mile radius. EPA encourages the facility owner or operator to coordinate information distribution and verification requirements with the LEPC or local emergency response officials to determine the best way to reach public stakeholders. EPA notes that the owner or operator shall document the method and the location of the notification in the RMP pursuant to 40 CFR 68.160(b)(22).

The 6-mile radius provision reasonably and practicably balances enhancing means of access for affected communities while also limiting security concerns about widespread, anonymous access that raised concerns in EPA's 2019 final rule. Further, the final provisions do not limit or violate FOIA rights of the public to obtain government-held records.

3. Data Elements to be Released to the Public

a. Comments

In the preamble of the proposed rule, EPA solicited comment on its announcement of its policy decision that, at some future date, EPA would post online portions of the RMP database that do not contain legally restricted information or information that raises significant security

concerns. The Agency solicited comments to help identify such information. The comment solicitation did not propose regulatory changes, but instead sought public input on a policy position. Nevertheless, because some of the data elements EPA is considering releasing through policy change are the same data elements facilities will be required to disclose under the information availability regulatory provision in this final rule, discussion of the comments and the Agency's rationale of releasing those data elements, through a future policy change and in this final rulemaking, is provided here.

In response to this comment solicitation, many commenters discussed data elements that should not be publicly released in order to avoid security threats. One commenter stated that security sensitive information, such as OCA data, should only be publicly accessible through Federal Reading Rooms. A few commenters listed specific elements that should not be publicly available, citing a potential increased vulnerability to terrorist attacks.

Data elements noted by commenters as posing security threats if released to the public, which the commenters argued should therefore not be disclosed, include:

- Chemical hazard information.
- Specific substance names and hazard characteristics.
- Names of regulated substances held in a process, SDSs, and any site-specific information.
- Information regarding hazardous substances on site.
- Storage location and transportation information.
- Emergency response details.
- Audit reports and exercise schedules and summaries.
- Accident history.

One commenter stated that sensitive information, such as audit reports, exercise schedules and summaries, and emergency response details, does not prevent accidents or reduce potential harm, but does increase the vulnerability of a facility to attacks by terrorists or other criminals. One commenter stated that specific information regarding security threats is held by DHS, and providing documented security threats, or security risks from prior incidents or near misses, provides a road map for bad actors and propagates future security threats.

A couple of commenters noted that some information, including CBI and trade secrets, should not be shared with the public. Another commenter stated that proprietary information about processes and chemicals should be in the safety plan without disclosing details that would allow the methods, procedures, or other intellectual property to be stolen. One commenter noted that EPA should reinstate previous language that enabled facilities to assert a claim of business confidentiality regarding any information they are required to make public under the RMP rule.

b. EPA Responses

The responses below address comments concerning the data elements required to be released by the source upon request. Additionally, EPA will consider the input from the commenters when the Agency proceeds with a policy decision on whether to put some portions of the RMP database online again in the future. As such, the responses that immediately follow are also provided to facilitate public dialogue about implementing EPA's potential policy change.

EPA agrees with commenters that suggested only information that could improve community awareness of risks should be made available to the public. Having the source provide the information set out in 40 CFR 68.210 directly to the public promotes accident prevention by facilitating public participation at the local level. It should be noted that EPA has been selective

in identifying what information a source must make available; for example, the Agency will not require the facility to provide an entire RMP to the public. EPA believes the public has a substantial interest in knowing what chemicals are present in the community and what it should do in the event of an accidental release involving facilities handling those chemicals. The public also has a substantial interest in having the opportunity to participate in an informed manner regarding emergency planning in its community. Facilitating access to information before an incident promotes more effective communication of information during responses to incidents, and thus promotes more effective response programs. (See the requirement in CAA section 112(r)(7)(B)(ii)(III) for response programs to address informing the public.) The public's ability to participate in emergency planning and readiness is materially advanced by being better informed about accident history, types of chemicals present, and how to interact with the stationary source. Nevertheless, of the information options proposed, EPA acknowledges some security concerns with releasing information identifying actual upcoming dates of tabletop or field exercises. EPA is therefore requiring facilities to provide a list of exercises that will occur within the year, indicating that they will occur, rather than identifying the specific date they will occur.

Although commenters did not explicitly request that the list of information required to be available upon request should include declined recommendations from new provisions, EPA is including this within the final rule. EPA intended this information to be available as the Agency indicated in the proposal that including this information in the RMP would ultimately enable the public to ensure facilities have conducted appropriate evaluations to address potential hazards that can affect communities near facility fencelines. When local citizens have adequate information and knowledge about facility hazards, EPA believes that facility owners and

operators may be motivated to further improve their safety in response to community pressure and oversight.

At this time, EPA will not require the owner or operator to make additional information available to the public, such as STAA reports, incident investigation reports (with root cause analyses), and third-party audit reports. EPA acknowledges there is public interest in having these reports available to them, but these documents, which can be lengthy (e.g., the sectors subject to STAA requirements have multiple processes and some PHAs are hundreds of pages), technically complex, and could contain not only CBI, but sensitive security information involving process or equipment vulnerabilities. Even sanitizing submitted documents and providing upfront justification of CBI claims would entail a significant level of burden upon industry and EPA. It would not be practical or a good use of resources to have thousands of documents submitted to EPA, to any other body, or with the RMP submission. However, EPA may explore opportunities to simplify this information for public access in a future rulemaking.

EPA is committed to safeguarding OCA information in accordance with requirements specified in the CSISSFRRA, which allows for any member of the public to access paper copies of OCA information for a limited number of facilities. This OCA information remains accessible to the public only in Federal Reading Rooms[107] or upon voluntary disclosure by the source itself. CAA section112(r)(7)(H)(v)(III).

EPA has received comments in the past with concerns regarding CBI and directs these commenters to the requirements in 40 CFR 68.152 for substantive criteria set forth in 40 CFR 2.301. EPA acknowledges and shares industry's concerns pertaining to protection of CBI information, but EPA believes that the Agency has addressed these concerns by providing the

[107] *https://www.epa.gov/rmp/federal-reading-rooms-risk-management-plans-rmp*.

same CBI protections for the public information availability provisions that exist for the RMP under 40 CFR 68.151 and 68.152 as for information contained in the RMP required under subpart G. As provided under 40 CFR 68.151(b)(3), an owner or operator of a stationary source may not claim five-year accident history information as CBI. As provided in 40 CFR 68.151(c)(2), an owner or operator of a stationary source asserting that a chemical name is CBI shall provide a generic category or class name as a substitute. CBI disclosure under EPCRA is controlled by that statute and rules implementing the information access provisions of EPCRA. Furthermore, EPA is not requiring STAA reports to be submitted to LEPCs or the public in the final rule, and, therefore, no CBI concerns exist for these reports. If an owner or operator has already claimed CBI for a portion of the RMP, then that claim still applies for the disclosure elements in the information availability provisions of the rule. The owner or operator should provide a sanitized version as described in the RMP*eSubmit User's Manual. This policy is consistent with existing RMP guidance and practices.

4. Security Concerns

a. Comments

A few commenters stated that there is no evidence that increasing information availability leads to security issues. Another commenter noted that there is no evidence that community members have caused a chemical disaster or that they pose any security risk. The commenter stated that a valuable way to address any security risks is to provide full public transparency and give facilities more incentive to prevent disasters by reducing or minimizing hazards up front. One commenter noted that eliminating chemical hazards and reducing risks present at industrial chemical facilities will not only prevent disasters in the event of an accident but will also prevent and reduce harm in the event of an intentional act, such as a cyberattack.

Several commenters emphasized security risks of the proposed rule, including risks of terrorist attacks or criminal activity. One commenter stated that the proposed information disclosure requirements raise security risks and impose significant burdens with no added benefit. Another commenter noted that providing additional sensitive accident investigation and chemical information to the public could result in a national homeland security concern.

Several commenters noted the additional risks of cybersecurity attacks. A commenter added that other Federal agencies opposed these requirements, citing security concerns detailed in a 2000 report issued by the Department of Justice (DOJ). A couple of commenters noted that other Federal agencies raised security concerns with the proposed disclosure requirements during interagency review.

Several commenters recommended that EPA withdraw its proposed information sharing provisions due to conflicts with information security protocols under DHS Chemical Facility Anti-Terrorism Standards (CFATS) regulations. One commenter noted that the availability of information requirements included in the proposed rule are in conflict with CSISSFRRA, U.S. Department of Transportation (DOT) Regulations, and DHS Regulations. A few commenters noted that the proposed public disclosure requirement is contrary to the Critical Infrastructure Information Act of 2002, and one commenter noted it is also in conflict with the Maritime Transportation Security Act. One commenter noted that EPA's proposed information disclosure requirements may conflict with existing DHS regulations restricting the disclosure of Chemical-terrorism Vulnerability Information (CVI).

b. EPA Responses

EPA acknowledges the security concerns raised by commenters and is committed to ensuring a balance between making information available to the public while also safeguarding

that information. EPA worked closely with Federal partners, including the DHS and the Federal Bureau of Investigation (FBI), to develop information availability requirements that strike a balance between security concerns and the need for sharing chemical hazard information with the public. EPA believes that the finalized approach is consistent with existing requirements to secure sensitive information. EPA also believes the current approach to notify the public that information is available upon request strikes an appropriate balance between various concerns, including information availability, community right-to-know, minimizing facility disclosure burden, and minimizing information security risks.

EPA believes the information disclosures required by the final rule are fully consistent with the statutes and regulatory programs identified by the commenters as enacted after the 1990 CAA Amendments. For example, CSISSFRRA specified that portions of RMPs containing "offsite consequence analysis information" (OCA Information), any electronic data base created from those portions, and any statewide or national ranking derived from such information is subject to restrictions on disclosure under CAA sections 112(r)(7)(H)(i)(III) and 112(r)(7)(H)(v). Regulations jointly promulgated by EPA and the DOJ further define OCA Information in 40 CFR 1400.2(j). The final rule will not require disclosure of release scenarios or rankings based on such scenarios, nor will it make available any information based on such scenarios. First, the Critical Infrastructure Information Act restricts information "not customarily in the public domain." Further, CFATS creates a category of information, CVI, which protects certain information submitted to DHS and necessary to implement CFATS (see 6 CFR 27.400). In promulgating CFATS, DHS announced its intent to preserve Federal release disclosure, emergency planning, and accident prevention statutes, including EPCRA and CAA section 112(r) (see 72 FR. 17714; April 9, 2007). In this final rule, EPA creates no tension between

after-enacted programs and enhancement of the RMP. The information that the final rule requires facilities to disclose largely draws on information otherwise in the public domain and simplifies the public's access to it. EPA has acknowledged that there would be some value to assembling a centralized, anonymously accessible government database of already-public information relevant to identifying and prioritizing facilities for potential impacts. However, this final rule does not create a central database of the information required to be disclosed, nor does it permit anonymous access. The limits on disclosure and access are important steps to minimize security risks. EPA has therefore coordinated with both the DHS Cybersecurity & Infrastructure Security Agency (CISA) which manages the CFATS program and the FBI in order to take steps that will balance accident prevention and security interests.

There exists no publicly available database of intentional acts upon the chemical process industries in the United States. In a 2021 study, researchers attempted to compile a database of such incidents, finding documentation of 84 incidents in the chemical and petrochemical industries.[108] [109] Root cause data on these incidents, which are not available, would be needed to determine if availability of information on the facility contributed to terrorist incidents, which were second to cybersecurity incidents as the most frequent overall cause. According to the database, no terrorist event in the process industries (excluding transportation and pipelines) has occurred in North America after the 1970s.[110] However, a lack of incidents may result from the

[108] Valeria Casson Moreno et al., "Analysis of Physical and Cyber Security–Related Events in the Chemical and Process Industry," *Process Safety and Environmental Protection* 116 (2018), 621–31, doi:10.1016/j.psep.2018.03.026.

[109] Matteo Iaiani et al., "Analysis of Events Involving the Intentional Release of Hazardous Substances from Industrial Facilities," *Reliability Engineering & System Safety* 212 (2021), 107593, doi:10.1016/j.ress.2021.107593.

[110] This is not a complete dataset, because it was developed based on publicly available information. Available in the supplemental material of Matteo Iaiani et al., "Analysis of Events Involving the Intentional Release of Hazardous Substances from Industrial Facilities," *Reliability Engineering & System Safety* 212 (2021), 107593, doi:10.1016/j.ress.2021.107593.

safeguards currently in place. DHS promulgated CFATS in accordance with the Homeland Security Appropriations Act of 2007, owing to insufficient security at industrial facilities. In promulgating CFATS, DHS did not intend for information created under CAA section 112(r) to constitute "Chemical-terrorism Vulnerability Information," which is sensitive information pursuant to CFATS requirements (72 FR 17714). EPA routinely coordinates with DHS as part of the Chemical Facility Security and Safety Working Group and commits to working with DHS to find regulatory solutions that balance community right-to-know with security concerns.

Accidental releases occur much more often than intentional events (about 100 per year using EPA RMP-reportable accidents). Pre-incident information, such as the locations of facilities and potential disasters, allows communities to be more prepared for disasters,[111] which DOJ also recognized in its 2000 risk assessment.[112] With over 20 years of data now, EPA has based many of the finalized provisions on prior accident information. EPA acknowledges that the Agency must consider whether some non-OCA data elements, or combinations of elements, may not be suitable for public release and should be restricted based on potential security risks. EPA has been and will continue to work with DHS, DOJ, and other Federal partners on identifying these risks.

Commenters have referred to certain comments from other agencies in connection with drafts of prior RMP rulemakings. The cited material appeared in the docket as required by CAA section 307(d)(4)(B)(ii). Such material is explicitly excluded from the record for judicial

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[111] Holly Carter, John Drury, and Richard Amlôt, "Recommendations for Improving Public Engagement with Pre-incident Information Materials for Initial Response to a Chemical, Biological, Radiological or Nuclear (CBRN) Incident: A Systematic Review," *International Journal of Disaster Risk Reduction* 51 (2020), 101796, doi:10.1016/j.ijdrr.2020.101796.

[112] DOJ, Assessment of the Increased Risk of Terrorist or Other Criminal Activity Associated with Posting Off-Site Consequence Analysis Information on the Internet (2000), *https://www.regulations.gov/document/EPA-HQ-OEM-2015-0725-2003*, EPA-HQ-OEM-2015-0725-2003.

review under CAA section 307(d)(7)(A). The introduction of this material into the record by these commenters is an attempt to avoid the exclusion under CAA section 307(d)(7)(A). Moreover, the comments addressed early stages of the rules that prior Administrators signed, and not the versions of prior proposed and final rules that were published, and do not reflect the ultimate positions of sister agencies with respect to what was published.

Regarding concerns that the 2000 DOJ report is in conflict with the information availability requirements, EPA believes the 6-mile radius provision ensures that, even if community members obtain information related to OCA data, it would require a difficult nationwide-coordinated effort among people within six miles of each facility to create the type of online database described in DOJ's report. The provisions simply require RMP facilities to provide their chemical hazard information to communities within a 6-mile radius of the facility, when previously they were not required to. Because RMP facilities were, and will continue to be, in possession of this information, it is unlikely that such a change would result in any possible prejudice to the facilities based on their reliance on the 2019 reconsideration rule provisions, which have only been in place for 4 years.

VIII. Other Areas of Technical Clarification / Enforcement Issues

A. Summary of Proposed Rulemaking

1. Process Safety Information, 40 CFR 68.65

EPA proposed to refine the language of 40 CFR 68.65 to clarify that the requirement to keep PSI up to date explicitly applies to Program 3 processes.

2. Program 2 and 3 Requirements for Compliance with RAGAGEP, 40 CFR 68.48 and 68.65

EPA proposed to harmonize 40 CFR 68.48(b) and 68.65(d)(2) so that the requirements for compliance with RAGAGEP for Program 2 and Program 3 processes are identical. Specifically, EPA proposed to require that Program 2 processes and Program 3 processes document compliance rather than merely "ensure" compliance. EPA also proposed to remove the sentence "Compliance with Federal or State regulations that address industry-specific safe design or with industry-specific design codes and standards may be used to demonstrate compliance with this paragraph."

3. Retention of Hot Work Permits, 40 CFR 68.85

EPA proposed to require retention of hot work permits for five years, in accordance with the recordkeeping requirements in 40 CFR 68.200.[113]

4. Storage Incident to Transportation, 40 CFR 68.3

EPA proposed additional regulatory language that includes a specified number of hours that a transportation container may be disconnected from the motive power that delivered it to the site before being considered part of the stationary source. EPA proposed to apply a 48-hour time frame to this term. EPA also proposed to modify the definition of "stationary source" to further clarify "storage incident to transportation" in 40 CFR 68.3 by adding an explanation to the transportation container language in the stationary source definition. The proposed regulatory text would add examples of what a transportation container could be, such as a truck or railcar, and clarify that for RMP purposes, railyards and other stationary sources actively engaged in transloading activities may store regulated substances up to 48 hours total in a disconnected

[113] 40 CFR 68.200: "The owner or operator shall maintain records supporting the implementation of this part at the stationary source for five years, unless otherwise provided in subpart D of this part."

transportation container without counting the regulated substances contained in that transportation container toward the regulatory threshold.

In addition to the proposed approach, EPA requested comment on suggestions for other appropriate time frames and any safety concerns that may arise from transportation containers being exempt from the RMP rule when disconnected for less than 48 hours.

5. Retail Facility Exemption, 40 CFR 68.3

EPA proposed to adjust the regulatory text to clarify that the definition of "retail facility" is one in which more than one-half of the "annual" income "in the previous calendar year" is obtained from direct sales to end users or at which more than one-half of the fuel sold over that period, by volume, is sold through a cylinder exchange program.

6. RAGAGEP Gap Analysis, 40 CFR 68.69 and 68.175

EPA proposed that the RMP regulations clarify that PHAs must include an analysis of the most recently promulgated RAGAGEP in order to identify any gap between practices related to the facility's design, maintenance, and operation, and the most current version of RAGAGEP.

EPA also proposed to require owners or operators to specify in their risk management plans why PHA recommendations associated with adopting practices from the most recent version of RAGAGEP were not implemented. EPA proposed to allow facilities to choose from pre-selected categories to provide justification for not implementing recommendations.

B. Summary of Final Rule

EPA is not finalizing the proposed supplementary storage incident to transportation language at 40 CFR 68.3.

EPA is finalizing the provisions for PSI, Program 2 and 3 requirements for compliance with RAGAGEP, and the RAGAGEP gap analysis as proposed.

EPA is finalizing the retention of hot work permits and retail facility exemption proposed changes with the following modifications:

- Revising 40 CFR 68.85(b) to require retention of hot work permits for three years rather than five.
- Revising 40 CFR 68.3 to clarify that "year," in the context of the definition of "retail facility," can be calendar or fiscal year.

C. Discussion of Comments and Basis for Final Rule Provisions

1. Process Safety Information

a. Comments

A couple of commenters expressed support for EPA's proposal to clarify that the requirement to keep PSI up to date explicitly applies to Program 3 processes. Several commenters stated that the proposal to update the PSI requirements is unnecessary, redundant with OSHA PSM requirements, and burdensome. Another commenter asserted that EPA should not amend 40 CFR 68.65(a) as proposed and should instead adhere to the existing regulatory language for Program 3 sources to ensure that the long-standing consistency between the RMP and PSM standard remain. Some of the commenters also stated that implementation would result in unnecessary costs on facilities. One commenter noted that, as currently written, the regulation does not impose a continuing obligation to maintain PSI. The commenter noted that as PHAs are conducted on five-year cycles, the applicable PSI need only be compiled on a corresponding five-year cycle and requiring that PSI be kept up to date will have associated costs that need to be accounted for in the RIA.

b. EPA Responses

EPA appreciates the support for the Agency's clarifications to the PSI requirements and is finalizing the provision as proposed. EPA believes that refining the language of 40 CFR 68.65 to reflect existing requirements clarifies that such PSI is required to be up to date for Program 3 processes—just as it is for Program 2 processes—without the need for evaluating compliance with management of change, conducting a pre-startup safety review, or meeting PHA requirements.

EPA disagrees that clarifying the PSI requirements is unnecessary. For processes subject to Program 3 requirements, the PSI requirements under 40 CFR 68.65 do not explicitly address updating PSI. Instead, that subject is addressed in several other parts of the Program 3 requirements, including the management of change requirements in 40 CFR 68.75, the pre-startup review requirements in 40 CFR 68.77, and the requirement to document that equipment complies with RAGAGEP in 40 CFR 68.65(d)(2). EPA is simply clarifying the PSI requirements in order to make the regulation more consistent throughout.

Additionally, EPA disagrees that the regulation, as currently written, does not impose a continuing obligation to maintain PSI. The requirement in 40 CFR 68.75(d) that PSI must be updated to reflect changes implies that PSI must be maintained. Further, the requirement to "document compliance with RAGAGEP" additionally supports that current PSI shall be maintained, since compliance cannot be documented without the maintaining of current PSI documents.

In response to comments that the updated PSI requirements would be inconsistent or redundant with OSHA's PSM requirements, EPA disagrees. EPA has coordinated with OSHA throughout the rulemaking process to ensure the intent of adding specificity and clarification to the RMP regulations does not create conflicting requirements with OSHA's PSM standard.

EPA disagrees that this modification will result in unnecessary costs on facilities. The intent of the changes to the regulatory text is to simplify implementation for facilities, as well as oversight, thereby improving chemical safety. The amendments do not change the meaning of the RMP rule. Therefore, EPA does not expect the changes to result in any additional costs for facilities.

2. Program 2 and 3 Requirements for Compliance with RAGAGEP

a. Comments

A couple of commenters supported EPA's proposal to clarify RAGAGEP requirements for Program 2 and Program 3 processes. One commenter stated that it is important to clarify the RAGAGEP requirements because codes, standards, and practices change over time. The commenter also urged EPA to strengthen the proposed changes by expanding the scope of applicability of the RAGAGEP requirement to cover all facilities. The commenter noted that the CAA directs EPA to ensure RAGAGEP is fully included in the assessment and process safety requirements, and mandates implementation "to the maximum extent practicable." Another commenter stated that the industry-wide understanding of the RAGAGEP's meaning varies widely, and the proposed clarification may help alleviate this problem and address the concern that Federal and State regulations may lag behind recognized industry standards for safety.

A couple of commenters stated that the requirement that owners ensure and document that processes are designed in compliance with RAGAGEP is an already-existing PSM requirement, and revisions to the text are therefore not necessary. A couple of commenters opposed removing the sentence, *"Compliance with Federal or State regulations that address industry-specific safe design or with industry-specific design codes and standards may be used to demonstrate compliance with this paragraph.*" One commenter stated that if EPA feels that

Federal or State regulations lag behind current RAGAGEP, then the Agency should advocate for those specific Federal or State regulations to be updated. The other commenter stated that the CAA does not grant EPA the authority to substitute compliance with current RAGAGEP for compliance with promulgated OSHA regulations.

b. EPA Responses

EPA is finalizing the proposed changes to the regulatory language. EPA agrees that doing so will clarify the requirements and address the concern that Federal or State regulations may lag behind current RAGAGEP. At this time, EPA is not expanding the scope of RMP applicability of RAGAGEP beyond Program 2 and 3 processes. EPA does, however, encourage all facilities to use RAGAGEP as it reflects well known industry practices and lessons learned shown to improve process safety and prevent accidents.

EPA disagrees that the changes to the regulatory language are unnecessary. EPA has found that the distinction between "ensure" for Program 2 processes and "document" for Program 3 processes creates confusion, and requiring facilities to "document" compliance, rather than merely "ensure" compliance, removes this ambiguity. With regards to Federal or State regulations that lag behind current RAGAGEP, EPA notes there is a difference when updated codes augment existing regulations versus when they conflict. To the extent they conflict, existing regulations reign over new RAGAGEP. However, if a facility can comply with existing regulations and new RAGAGEP, then there is an obligation to comply with both. EPA believes this provision will help resolve confusion when more current RAGAGEP identify potential shortcomings in a facility's process.

EPA has coordinated with OSHA throughout the rulemaking process to ensure the intent of adding specificity and clarification to the RMP regulations does not create conflicts with the requirements of the OSHA PSM standard.

3. Retention of Hot Work Permits

a. Comments

A few commenters expressed support for the proposed five-year retention period for hot work permits. One of the commenters stated that the provision advances the rule's directive to ensure prevention and compliance to the greatest extent practicable and assures compliance as expeditiously as practicable. Another commenter stated that these simple recordkeeping requirements are not burdensome, contribute to further safety, and can help demonstrate compliance in the event of an audit.

Several commenters stated that the retention of hundreds of expired hot work permits for five years is unnecessary and creates a substantial recordkeeping and administrative burden for facilities. A few commenters noted that retaining the hot work permits for five years provides no added safety benefits to the facility or surrounding community. A commenter pointed out that facilities are already required to conduct compliance audits on three-year intervals and to retain the two most recent compliance audit reports, meaning that compliance audit documentation will be retained for at least six years. The commenter stated that these audits will review hot work compliance and are available to implementing agency personnel; therefore, the proposed hot work permit retention requirement is excessive in proportion to the marginal benefit to implementing agencies.

A couple of commenters noted that OSHA does not require that permits be retained beyond the completion of the hot work task. Similarly, another commenter pointed out that EPA

failed to acknowledge that a five-year record retention period for hot work permits would break from the existing PSM rule, where OSHA requires hot work permits to be maintained only during the hot work. The commenter recommended that EPA maintain consistency with the PSM rule. Another commenter agreed that there should be no requirement to retain hot work permits beyond the completion of the hot work authorized by each permit.

Some commenters suggested retaining hot work permits for periods of time other than five years. A few commenters specified that a one-year retention requirement would be more appropriate. One commenter recommended reducing the retention period from five years to three years, since the three-year period is consistent with the three-year audit period under 40 CFR 68.58 and 68.79 for Program 2 and 3 facilities.

b. EPA Responses

EPA agrees that adding a requirement to retain hot work permits after the completion of operations would help ensure prevention and compliance to the greatest extent practicable and contribute to further safety. However, based on comments on the proposed timeframe, EPA is finalizing a three-year retention period of hot work permits as opposed to the five years that were proposed.

EPA does not agree that retention of hot work permits after the completion of operations is unnecessary. Under the existing RMP regulations, it can be difficult for implementing agencies, and the owner or operator, through the compliance audit provision (40 CFR 68.58 and 68.79), to determine if the facility has been conducting hot work in compliance with the requirements of 40 CFR 68.85, unless the facility is conducting hot work at the time of the inspection or audit and has hot work permits on file. Adding a requirement to retain hot work permits after the completion of operations will address this issue. EPA is finalizing a three-year

retention period of hot work permits in order to make the requirement less burdensome for facilities conducting hot work often and to align the requirement with the three-year audit period under 40 CFR 68.58 and 68.79.

In response to comments that the proposed retention period would be inconsistent with OSHA's PSM rule, EPA has coordinated with OSHA throughout the rulemaking process to ensure the intent of adding specificity and clarification to the RMP regulations does not create conflicts with the requirements of the OSHA PSM standard.

4. Storage Incident to Transportation

EPA's Proposed Approach

a. Comments

One commenter expressed support for the proposed additional regulatory language and the proposed 48-hour time frame. Other commenters supported EPA's proposal to continue to exclude facilities and equipment used in transportation and storage incident to transportation from the term "stationary source." One commenter stated that doing so avoids duplication of the existing DOT regulations and continues the regulatory division of labor between EPA and DOT's Pipeline and Hazardous Safety Administration (PHMSA).

One commenter stated that transloading can take up to two months due to a variety of safety and logistics reasons, and requiring transloaders to move more quickly might increase the risks of release that the proposed rule seeks to minimize. A couple of commenters stated that the proposed definition of "stationary source" would conflict with DOT requirements and could create confusion.

One commenter requested that facilities be given a minimum of 72 hours before a disconnected transportation container is considered part of the stationary source. Similarly,

another commenter stated that a time frame of 48 hours is too short with respect to rail transportation. The commenter asked EPA to consider eliminating the 48-hour requirement altogether, or at a minimum, extend it further for purposes of the RMP rule. The commenter noted that concerns over safety to the surrounding environment due to an extended timeframe should be mitigated by the fact that railcars designed to transport hazardous materials must meet rigorous design specifications as specified by PHMSA in 49 CFR part 179.

A couple of commenters expressed safety concerns that arise from transportation containers being exempt from the RMP rule when disconnected for less than 48 hours. One commenter requested that EPA strengthen the proposed rule to immediately trigger threshold determination for the duration that a transportation container is on-site, regardless of whether it is attached to a source of power or in motion. The commenter added that the presence of chemical railcars multiplies the risk for communities by blocking emergency evacuation routes and increasing air pollution. Another commenter stated that there are cumulative impacts and risks regardless of the length of time at a location and asked EPA to work with local community groups to best resolve the safety concern.

b. EPA Responses

EPA is not finalizing the proposed regulatory language that includes a specified number of hours that a transportation container may be disconnected from the motive power that delivered it to the site before being considered part of the stationary source. As explained in the proposed rule, the term “storage not incident to transportation” is currently not defined in the RMP regulations. The proposed modification sought only to apply a specific timeframe to universally establish a structure to interpret the term. EPA hoped a specified timeframe would assist regulated entities and implementing agencies to more clearly determine when a

transportation container used for onsite storage must be incorporated into a facility's risk management plan. Nevertheless, after review of comments, EPA acknowledges some of the concerns with establishing a timeframe and chooses to further consider the feedback received on the proposed modification before pursuing the effort. EPA encourages regulated entities and implementing agencies to continue to rely on guidance EPA has provided to determine if a transportation container is considered a part of a stationary source.

EPA has demonstrated its intent and application of when transportation containers are and are not part of the stationary source in guidance and through court decisions. In the January 1998 amendments to the RMP rule (63 FR 640)[114], the Agency explained that EPA considers a container to be in transportation as long as it is attached to the motive power that delivered it to the site (e.g., a truck or locomotive). If a container remains attached to the motive power that delivered it to the site, even after a facility accepts delivery, it would be considered as still in transportation, and the contents would not be subject to threshold determination. Additionally, EPA's guidance indicates that transportation containers used for storage which are not incident to transportation and transportation containers connected to equipment at a stationary source are considered part of the stationary source. Transportation containers that have been unhooked from the motive power that delivered them to the site (e.g., truck or locomotive) and left on a stationary source's site for short-term or long-term storage are part of the stationary source.[115]

Since EPA's proposal, courts have also spoken to this issue. In February 2023, the U.S. Eastern District Court of Washington ruled in favor of the U.S. against Multistar Industries regarding RMP applicability to railcars used for stationary storage. The Court determined that

[114] *https://www.govinfo.gov/content/pkg/FR-1998-01-06/pdf/98-267.pdf*.

[115] *https://www.epa.gov/sites/default/files/2013-10/documents/chap-01-final.pdf* (page 1-5).

railcars containing trimethylamine (TMA) in 2017 in Othello, WA, were used as storage outside the scope of transportation.[116] The TMA-containing railcars sat for days or weeks before the TMA was eventually transloaded into trucks for transfer to the customer. Additionally, in 2017, the NC Department of Air Quality succeeded against Aberdeen Carolina & Western Railway in demonstrating that EPA's longstanding interpretation of the term "stationary source" includes railcars disconnected from locomotive power and stored for extended periods of time. In that case, between 2012 and 2016, in Star, NC, railcars containing butane were stored on tracks awaiting placement at a nearby terminal for up to 360 days.[117]

5. Retail Facility Exemption

a. Comments

Several commenters opposed EPA's proposed changes to the definition of "retail facility." A couple of commenters contended that the proposed changes to the definition lack justification. One of the commenters said that EPA failed to: (1) Provide any support for its assertion that owners and operators of facilities storing propane or other flammable substances are unclear how to determine whether they qualify as retail facilities, (2) provide any information to suggest that the current definition creates safety concerns, and (3) cite enforcement concerns at facilities claiming to be retail facilities.

One commenter urged EPA to use the retail facility definition used for the RMP and OSHA PSM standard, which has been in place for a long time and is well understood by the industry and enforceable by the agencies. A couple of commenters urged EPA to maintain its

[116] *United States v. Multistar Indus. Inc.,* No. 2:21-cv-00262-TOR, 2023 WL 1802387 (E.D. Wash. Feb. 7, 2023).

[117] *Aberdeen Carolina & Western Railway v. NC Dept of Air Quality, Final Decision on Summary Judgment*, State of North Carolina, County of Montgomery, 16 EHR 07190, May 22, 2017.

existing definition of a retail facility, which is consistent with the definition set forth in the Fuels Regulatory Relief Act and OSHA PSM standard enforcement guidance and interpretations.

A couple of commenters recommended that, if EPA moves forward to adjust the definition of retail facility, the Agency should provide businesses and/or facilities with the option of selecting either fiscal year or calendar year when determining annual income from direct sales to end users. Similarly, another commenter recommended changing "calendar year" to "fiscal year" to facilitate the income calculation for those companies whose fiscal year may not coincide with the calendar year.

b. EPA Responses

EPA disagrees that the proposed changes to the definition of "retail facility" lack justification. With the current definition, the period of sales to end users is unclear; it lacks a definite time frame in which to calculate whether more than one-half of the facility's direct sales are to end users. Specifying a definite period of time eliminates this uncertainty and allows owners and operators to determine more accurately whether regulated substances in a process are subject to the RMP provisions. It also may reduce the amount of sales documentation that the owner or operator of a regulated facility must provide to establish its status as a retail facility. EPA is finalizing the "one year of sales activity" amendment because the Agency believes it captures the seasonality of propane sales at propane distribution facilities.

EPA disagrees with comments arguing that EPA's proposed definition would be inconsistent with OSHA's PSM regulations. EPA has coordinated with OSHA throughout the rulemaking process to ensure the intent of adding specificity and clarification to the RMP regulations does not create conflicts with the requirements of the OSHA PSM. EPA believes that

the provisions it proposed and is finalizing are compatible and do not conflict with the prevention provisions of OSHA's PSM regulations.

In response to comments recommending that EPA adjust the definition to provide facilities the option of selecting either fiscal year or calendar year, EPA agrees with this suggestion and is adopting it in the final rule. The Agency believes this option provides flexibility in using records in the configuration that may already exist at facilities.

6. RAGAGEP Gap Analysis

a. Comments

Many commenters expressed opposition to EPA's proposed RAGAGEP gap analysis provisions. One commenter stated that the existing RMP regulations already address gaps in RAGAGEP through the PSI requirement in 40 CFR 68.65(d)(3). Some commenters stated that conducting a gap analysis of RAGAGEP has no safety benefits. Another commenter contended that the proposal is an unnecessary intrusion into internal practices of a facility. The commenter added that, because EPA should not require disclosure of decisions not to implement RAGAGEP recommendations, there is no need to provide specific categories for reporting that information publicly.

Several commenters stated that requiring facilities to include this information in their risk management plans would result in unnecessary costs on facilities. A few commenters noted that EPA's failure to consider costs in the RIA deprives the public of an opportunity to assess the full costs and benefits of the proposal. One commenter stated that EPA provided no reasonable explanation for its proposed RAGAGEP requirements, nor did it consider the cost, including resources that may be diverted because of this paperwork exercise, or benefits of the requirement in the RIA.

One commenter noted that the proposed gap analysis provision ignores several practical difficulties in implementation, such as how facilities are to identify the most current version of applicable RAGAGEP, how they are to account for non-mandatory RAGAGEP provisions in the analysis, and how this analysis can be completed in a timely manner. The commenter added that the proposed requirement ignores existing obligations to determine and document that equipment designed and constructed is in accordance with RAGAGEP.

Some commenters said that the RAGAGEP analysis is ill-suited for the PHA team to perform. One commenter pointed out that industry standards are locked into place once a facility is constructed and each facility is designed, engineered, and built according to the standards of that time. The commenter added that in some cases it would be impossible to document that equipment, which may be 20 or 30 years old, complies with RAGAGEP when RAGAGEP continually changes.

A couple of commenters stated that the proposed gap analysis provision encroaches on OSHA's PSM regulation. Some commenters pointed out that EPA adopted their regulation verbatim from OSHA's PSM regulation, and OSHA has made clear that its regulations require the verification of safe equipment, not a continual review of RAGAGEP. Several commenters said that EPA did not explain how the proposed gap analysis provision would work in tandem with OSHA regulation, which the proposal fails to repeal or revise. One of the commenters added that ignoring existing regulations is arbitrary government action.

b. EPA Responses

In response to comments that EPA provided no reasonable explanation for the requirement, there would be difficulty in implementing the provision, and costs for the requirement were not considered, EPA notes that this RAGAGEP gap analysis is already

expected under 40 CFR 68.65(d)(2) and (3) for Program 3 processes. EPA notes this PHA modification merely clarifies when facilities must, at minimum, conduct or review previous analyses when determining their compliance with 40 CFR 68.65(d)(2) and (3). Therefore, EPA does not believe that the Agency must consider and assess the costs of this provision in the RIA.

As indicated in a Frequently Asked Question,[118] EPA expects owners and operators to regularly review new and updated RAGAGEP applicable to their industry to determine where safety gaps exist within their current process. If the updated document explicitly provides that new clauses or requirements are retroactive, those updates are relevant to determining whether the owner or operator's practice continues to conform to RAGAGEP per 40 CFR 68.65(d)(2). Where RAGAGEP are updated to be more protective, but are not explicitly retroactive, per 40 CFR 68.65(d)(3), the owner or operator should thoroughly evaluate how their process could still be considered safe amid new industry knowledge. Simply indicating that a process incident has yet to occur is an inappropriate evaluation for choosing not to adhere to updated RAGAGEP, especially considering changes to RAGAGEP may result from industry accidents, industry operating experience, and improved understanding of existing and newly recognized hazards. Oftentimes it will be difficult for the owner or operator to document equipment is designed, maintained, inspected, testing, and operating in a safe manner when there is extensive industry knowledge that indicates aspects of older process operations are no longer safe.

Evaluation of updated RAGAGEP already is an RMP requirement, as shown in enforcement actions against facilities not complying with this provision. For example, in 2022, EPA took an enforcement action against a refinery in Hawaii that failed to comply with the latest

[118] *https://www.epa.gov/rmp/complying-process-safety-information-psi-resulting-new-and-updated-recognized-and-generally*.

versions of applicable refining industry standards, API Recommended Practice 941, "Steels for Hydrogen Service at Elevated Temperatures" (8th edition, February 2016), and 581, "Risk Based Inspection" (3rd edition, April 2016).[119] In February 2021, EPA also took an enforcement action against a seafood processing facility in Massachusetts that failed to comply with the latest version (at that time) of an applicable ammonia refrigeration industry standard, International Institute of Ammonia Refrigeration (IIAR) 2-2014, "Safe Design of Closed-Circuit Ammonia Refrigeration Systems."[120] In both cases, the processes at these facilities were built prior to the updated RAGAGEP cited.

EPA disagrees that the RAGAGEP analysis is ill-suited for the PHA team to perform. PHA teams should include staff who are aware of industry design standards. The PHA team requirement under 40 CFR 68.67(d) specifies that the PHA shall be performed by a team with expertise in engineering and process operations, and EPA expects an expert to be one that has knowledge of current industry standards. Additionally, industry trade associations are likely to ease the burden on facilities by identifying which of their current RAGAGEP should be broadly applied to the industry, regardless of when the process was designed. For example, the ammonia refrigeration industry has already done so, specifically in the ANSI/IIAR Standard 9-2020, "American National Standard for Minimum System Safety Requirements for Existing Closed-Circuit Ammonia Refrigeration Systems."

In response to comments that the provisions encroach on OSHA's PSM regulations, EPA disagrees. This new PHA requirement is meant to complement OSHA's equivalent requirement

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[119] *https://yosemite.epa.gov/oa/rhc/epaadmin.nsf/Filings/F8CDEF8A6F344043852588A90070FA45/$File/Par%20Hawaii%20Refining%20(CAA112R-09-2022-0008)%20-%20Served.pdf.*

[120] *https://yosemite.epa.gov/oa/rhc/epaadmin.nsf/Filings/0D26DA8B081A54008525867F00634AB2/$File/EPCRA-01-2021-0037%20and%20CAA%20-01-2021-0038%20ORPEL%20CAFO%20Respondent%20Signed-RJO-Signed02-17-21%20(002).pdf.*

in 29 CFR 1910.119(d)(3)(iii) and provide a framework for undertaking the analysis. While EPA favors consistency with OSHA's PSM standard, EPA must also ensure compliance with the CAA. CAA section 112(r)(1), 42 U.S.C. 7412(r)(1), Purpose and general duty, states that, "It shall be the objective of the regulations and programs authorized under this subsection to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to paragraph (3) or any other extremely hazardous substance." Congress further clarified in legislative history that it intended facility owners and operators to implement all feasible means to reduce the threat of death, serious injury, or substantial property damage to satisfy the requirements of the GDC.[121] Obligations under the regulatory program authorized by CAA section 112(r)(7) build upon those under the general duty rather than undercut it. Accordingly, using the RMP regulations to permanently lock into place obsolete or out-of-date RAGAGEP is inconsistent with the purpose and intent of the CAA.

IX. Compliance Dates

The initial RMP rule applied three years after promulgation of the rule on June 20, 1996, which is consistent with the last sentence of CAA section 112(r)(7)(B)(i). The statute does not directly address when amendments should become applicable. The provisions of this action modify terms of the existing rule, and, in some cases, clarify existing requirements.

A. Summary of Proposed Rulemaking

EPA proposed modifications to 40 CFR 68.10 to establish compliance dates for an owner or operator to comply with the revised rule provisions as follows:

- Require regulated sources to comply with new STAA, incident investigation root cause analysis, third-party compliance audit, employee participation, emergency

[121] S. Rep. 101-228 at 209, 1990 U.S.C.C.A.N. 3385, 3595 (1989).

response public notification and exercise evaluation reports, and information availability provisions, unless otherwise stated, three years after the effective date of the final rule (*i.e.,* three years after the FR effective date).

- Require regulated sources to comply with the revised emergency response field exercise frequency provision by March 15, 2027, or within 10 years of the date of an emergency response field exercise conducted between March 15, 2017, and August 31, 2022, in accordance with 40 CFR 68.96(b)(1)(ii).
- Allow regulated sources one additional year (*i.e.,* four years after the effective date of the final rule) to update and resubmit risk management plans to reflect new and revised data elements.

B. Summary of Final Rule

EPA is finalizing the compliance dates as proposed with the following modification:

- Adding a compliance date to 40 CFR 68.10 to require standby or backup power for air monitoring and control equipment by three years after the effective date of the final rule (*i.e.,* three years after the effective date of this action as provided in the *Federal Register*).

C. Discussion of Comments and Basis for Final Rule Provisions

1. General Comments

a. Comments

One commenter expressed support for the compliance dates proposed by EPA. Another commenter recommended that the compliance period under the proposed rule be shortened to two years, at least for the emergency response public notification and exercise evaluation reports, employee participation, and information availability provisions. The commenter added that

statutory language reflects Congress's intent that EPA ensure adequate safeguards are promptly put in place to protect workers and surrounding communities from releases of dangerous chemicals. The commenter further stated that EPA's proposal should contain shorter compliance deadlines as compared to the 1996 RMP rule because the proposed rule is not as extensive as developing a full RMP program. Another commenter opposed allowing companies three years after the effective date of the proposed rule to comply. The commenter stated that this period is too long, given that most companies are already complying with an existing version of the RMP rule. The commenter suggested a one-year timeline is most appropriate.

Several commenters stated that there are too many proposed changes to accomplish in three years and asked EPA to extend the compliance deadlines to five years after the effective date of the proposed rule. The commenter stated that to the extent that EPA intends to rely on forthcoming guidance in interpreting and enforcing the new RMP provisions, it is imperative that these new requirements not take effect until at least three years after the relevant guidance is issued, instead of three years after the effective date of the final rule, as EPA has proposed. One commenter, who objected to the effective dates in the proposed rule and said they are too restrictive, said EPA failed to meet its CAA obligation to set RMP effective dates in a manner that assures compliance as "expeditiously as practicable."

b. EPA Responses

EPA disagrees that the compliance dates for some or all provisions should be shortened to one or two years or should be lengthened to five years or three years after guidance is issued. The Agency believes there is a good balance with three years as the compliance date for most new provisions while also assuring compliance as expeditiously as practicable. Moreover, the initial 1996 RMP rule required compliance per the statute within three years. EPA believes the

provisions finalized in this rule are not as extensive as developing a full RMP program. Nevertheless, time is needed for facility owners and operators to understand the revised rule; train facility personnel on the revised provisions; learn new investigation techniques, as appropriate; research safer technologies; arrange for emergency response resources; incorporate changes into their RMPs; and establish a strategy to notify the public that certain information is available upon request. This time is necessary to achieve compliance with the new provisions because as a performance-based rule, EPA has not specified how facilities apply these provisions to manage and improve process safety at their facility, whether it involves conforming to minimum standards, such as codes, or trying to reduce risk to as low as reasonably practical, or whether it uses qualitative or quantitative assessments. Furthermore, EPA intends to publish guidance for certain provisions, such as STAA, root cause analysis, third-party audits, and employee participation, etc. Once these materials are complete, owners and operators can have time to familiarize themselves with the new materials if needing assistance in applying the provisions to improve process safety. EPA expects to develop and release this information approximately one year after this final rule. However, most provisions for a source are a site-specific determination, so EPA expects all regulated RMP facilities to be successful in beginning to address the provisions immediately.

2. Safer Technologies and Alternatives Analysis

One commenter pointed out that the effective date for the STAA requirement would disrupt PHA cycles. The commenter stated that the proposed STAA deadline is impracticable for facilities scheduled to complete their PHA update and re-validation any time after August 1, 2021. The commenter requested that EPA modify the effective date to perform a STAA as part of the next-scheduled PHA update and re-validation that occurs any time after three years from

EPA's issuance of the intended STAA guidance or the final rule's effective date, whichever is later.

EPA disagrees with commenters and is finalizing a three-year compliance date for the STAA evaluation and IST/ISD practicability assessment. Sources subject to this provision are among the largest and most complex sources regulated under 40 CFR part 68, and therefore PHAs and PHA updates and revalidations at these sources typically require a significant level of planning. While PHA updates are normally done at five-year intervals, the Agency recognizes that some sources may be far enough along with their PHAs that they will not be able to schedule their STAAs as part of their PHAs. Such sources have the option of not performing STAA as part of their PHA so long as they perform a STAA within 3 years of the effective date of the final rule. Considering updates or revalidations to the initial STAA activities will likely require less effort, the Agency expects many of these sources will later incorporate further STAA updates on their normal PHA update schedule. Regarding the STAA safeguard implementation provision, since implementation (of at least one passive measure, or an inherently safer technology or design, or a combination of active and procedural measures equivalent to or greater than the risk reduction of a passive measure) is required each PHA cycle, EPA expects implementation to be commenced within that cycle and scheduled for completion as soon as practicable.

3. Incident Investigation Root Cause Analysis

EPA did not receive any comments specific to the three-year compliance date for incident investigation root cause analysis. Therefore, EPA is finalizing the date for this provision, as proposed. The Agency continues to rely on the rationale expressed in the proposed rulemaking (87 FR 53606).

4. Third-party Compliance Audits

EPA did not receive any comments specific to the three-year compliance date for third-party compliance audits. Therefore, EPA is finalizing the date for this provision, as proposed. The Agency continues to rely on the rationale expressed in the proposed rulemaking (87 FR 53606).

5. Employee Participation

EPA did not receive any distinct comments specific to this issue other than as a general comment. Therefore, EPA is finalizing a three-year compliance date for this provision, as proposed. The Agency continues to rely on the rationale expressed in the proposed rulemaking (87 FR 53606).

6. Emergency Response

Public Notification. Regarding the community public notification system requirements, a commenter said they will take more than three years to implement because it will be a significant undertaking requiring involvement of and coordination with several different parties.

EPA disagrees with commenters that this provision will take longer than three years to implement. This provision is for facility owners and operators to work with the local responders to ensure that, during a release, a notification system is in place that will notify the public of the impending situation. EPA expects the partnership to occur at least during annual coordination discussions under 40 CFR 68.93. Under 40 CFR 68.93, owners and operators are required to annually coordinate response needs with local emergency planning and response organizations to determine how the facility is addressed in the community emergency response plan, among other things. A component of the community emergency response plan is public notification of chemical releases; therefore, it is expected that this component will be discussed and documented

by the facility owner or operator as part of the annual coordination obligations. Therefore, EPA is finalizing the 3-year compliance date as proposed.

Field Exercises. A couple of the commenters suggested that EPA speed up compliance because 10 years is too long to wait for essential emergency planning, especially in communities with multiple RMP facilities. One commenter noted that five- to ten-year deadlines allow more time than necessary to comply and would allow another generation of children to grow up without even the protection of a basic emergency response exercise at the facility near them.

EPA disagrees that field exercises should be required on an annual, biennial, or triennial basis. Requiring field exercises to be held at shorter minimum frequencies, such as these would significantly increase compliance costs to both regulated facilities and local responder agencies. Such an approach would discourage the participation of local emergency responders in field exercises, which is voluntary under the RMP rule. Additionally, table-top exercises of the emergency plan have value for protecting the nearby community, and these occur every three years. The community would not be without a type of "basic emergency response exercise." Therefore, EPA is finalizing the compliance date for owners or operators of sources to have planned, scheduled, and conducted their first field exercise by March 15, 2027.

Exercise Evaluation Reports. EPA did not receive any comments specific to the three-year compliance date for exercise evaluation reports other than as a general comment. Therefore, EPA is finalizing the date for this provision, as proposed. The Agency continues to rely on the rationale expressed in the proposed rulemaking (87 FR 53606).

7. Information Availability

A couple of commenters stated EPA's proposal to delay information access for 45 days after a request, and to require compliance after three years, is unlawful and arbitrary. These

commenters stated that community members need information now—not three years from now—and that 45 days is far too long for a community member to have to wait for basic hazard information. The commenters also stated that EPA has failed to justify these delays when the provision would simply require a facility to provide only a portion of the information it already regularly reports to EPA itself, and that EPA has failed to show three years is the most expeditious compliance date practicable, or that three years is required to implement this provision.

EPA disagrees with these commenters and is finalizing a three-year compliance date for the information availability provision. This means that three years after the effective date of the rule, the facility owner or operator must have notifications in place to inform the public that information specified in 40 CFR 68.210(b) is available upon request. EPA believes that this timeframe is needed to allow facility staff an opportunity to determine the best method for providing notifications to the public, to assemble and format information, including securing appropriate language translation services, and to prepare to respond to information requests. EPA is therefore finalizing the three-year compliance date for the information availability provision.

8. RMP Update

A couple of commenters urged EPA to shorten the 4-year timeline for facilities to submit updated RMPs.

EPA disagrees with commenters and is finalizing the four-year compliance date for this provision, as proposed. This timeframe will allow owners and operators an opportunity to begin to comply with revised rule provisions prior to certifying compliance in the RMP. Additionally, the Agency will revise its online RMP submission system, RMP*eSubmit, to include the additional data elements, and sources will not be able to update RMPs with new or revised data

elements until the submission system is ready. Also, once it is ready, allowing an additional year for sources to update RMPs will prevent potential problems with thousands of sources submitting updated RMPs on the same day.

9. Hazard Review Amplifications and Other Areas of Technical Clarification

a. Comments

One commenter asked EPA to clarify the required date for compliance with the natural hazard assessment and the power loss evaluations. The commenter asserted that this should occur as expeditiously as practicable, within one year after the effective date of the final rule, and facilities should be directed to report that they have completed these assessments soon after completion. Another commenter supported requiring backup power for air pollution control and monitoring equipment associated with the prevention and detection of accidental releases and suggested that EPA specify an appropriate compliance deadline, specifically no later than three years from the date of promulgation.

One commenter pointed out that EPA's proposal would require facilities to comply with the proposed revisions in the PHAs upon the effective date of the rule. The commenter said that the deadline is infeasible because it would take years to address the host of expansive new PHA requirements that require analysis of a wide range of issues. Accordingly, the commenter asked EPA to clarify that the deadline for any new requirements is when the PHA becomes due as part of its five-year cycle, or three years after the effective date of the final rule, whichever comes later. Referring to the natural hazards assessment, another commenter requested an implementation date of no sooner than five years after the effective date of the final rule.

b. EPA Responses

EPA notes that components of the hazards evaluation amplifications and the other areas of technical clarification in sections V.A. and VIII of this preamble impose no new requirements on facilities because they codify existing industry practice and re-emphasize current RMP requirements and do not change the meaning of the RMP rule. Compliance for these provisions is therefore already required and should be updated on their normal schedule. For example, an evaluation of natural hazards on a process should already be occurring as part of the hazard review (40 CFR 68.50) or PHA (40 CFR 68.67) and should be updated at least once every 5 years. Additionally, any update to the RMP required by 40 CFR 68.190 should continue to occur as normal and should include updating the RMP with current information required by Subpart G. The intent of the amplifications and clarifications discussed in this final rule are to simplify implementation for facilities, thereby improving chemical safety.

In response to comments asking EPA to clarify the compliance date for requiring standby or backup power for continuous operation of air monitoring equipment associated with prevention and detection of accidental releases from covered processes, EPA has adopted the three-year compliance date and has amended the regulatory language. EPA believes three years will allow time to evaluate and secure standby or backup power needs for air monitoring equipment and assure their safe operation.

X. Statutory and Executive Orders 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 14094: Modernizing Regulatory Review

This action is a "significant regulatory action", as defined under section 3(f)(1) of Executive Order 12866, as amended by Executive Order 14094. Accordingly, EPA, submitted this action to the Office of Management and Budget (OMB) for Executive Order 12866 review. Documentation of any changes made in response to the Executive Order 12866 review is available in the docket. The EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis, "Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention Final Rule" (Docket ID Number EPA-HQ-OLEM-2022-0174), is also available in the docket.

B. Paperwork Reduction Act (PRA)

The information collection activities in this rule will be submitted for approval to OMB under the PRA. The Information Collection Request (ICR) document that EPA prepared has been assigned EPA ICR number 2725.02. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

EPA believes that the RMP regulations, originally promulgated on June 20, 1996, codified as 40 CFR part 68, and later amended, have been effective in preventing and mitigating chemical accidents in the United States. However, EPA believes that revisions will likely further protect human health and the environment from chemical hazards through advancement of process safety based on lessons learned. The revisions in this final rule are a result of reviewing the existing RMP regulations and information gathered from the 2021 listening sessions. State and local authorities will use the information in RMPs to modify and enhance their community response plans. The agencies implementing the RMP rule use RMPs to evaluate compliance with 40 CFR part 68 and to identify sources for inspection because they may pose significant risks to

the community. Citizens may use the information to assess and address chemical hazards in their communities and to respond appropriately in the event of a release of a regulated substance. These revisions are made under the statutory authority provided by section 112(r) of the CAA as amended (42 U.S.C. 7412(r)).

Respondents/affected entities: The industries that are likely to be affected by the requirements in the regulation fall into numerous NAICS codes. The types of stationary sources affected by the rule range from petroleum refineries and large chemical manufacturers to water and wastewater treatment systems; chemical and petroleum wholesalers and terminals; food manufacturers, packing plants, and other cold storage facilities with ammonia refrigeration systems; agricultural chemical distributors; midstream gas plants; and a limited number of other sources that use RMP-regulated substances. Among the stationary sources potentially affected, the Agency has determined that 2,636 are regulated private sector small entities and 630 are small government entities.

Respondent's obligation to respond: Mandatory ((CAA sections 112(r)(7)(B)(i) and (ii), CAA sections 112(r)(7)(B)(iii), 114(c), CAA 114(a)(1))).

Estimated number of respondents: 11,740.

Frequency of response: Occasional.

Total estimated burden: 1,190,991 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $126,796,471 (per year); includes $12,413,710 annual operations and maintenance costs and $78,400 annual capital costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB

control numbers for EPA's regulations in 40 CFR are listed in *40 CFR part 9*. When OMB approves this ICR, the Agency will announce that approval in the *Federal Register* and publish a technical amendment to *40 CFR part 9* to display the OMB control number for the approved information collection activities contained in this final rule.

C. 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. The small entities subject to the requirements of this action are small businesses and small governmental entities. The Agency has determined that among the 2,636 potentially regulated private sector small entities so impacted, 2,393, or 90.8 percent, may experience an impact of less than one percent with an average small entity cost of $72,525; 167, or 6.3 percent, may experience an impact of between 1 and 3 percent of revenues with an average small cost entity of $629,271; and 75, or 2.8 percent, may experience an impact of greater than 3 percent with an average small entity cost of $1,083,823. The industry sectors of Farm Supplies Merchant Wholesalers and Farm Product Warehousing and Storage had the most entities potentially affected, with 146 and 96 entities, respectively. Within the Farm Supplies Merchant Wholesalers sector, the Agency determined that only 8 of the 146 small entities (6 percent of small entities) will experience impacts of between 1 and 3 percent of revenues and only 2 small entities (1 percent of small entities) will experience impacts of more than 3 percent of revenue. Within the Farm Product Warehousing and Storage sector, the Agency determined that only 5 of the 96 small entities (5 percent of small entities) will experience impacts of between 1 and 3 percent of revenues and no small entities will experience impacts of more than 3 percent of revenue.

Among the 630 small government entities potentially affected, the minimum cost any entity will incur is $2,000; 365, or 58 percent, would incur costs ranging from $2,000 to $3,000; 248, or 39 percent, will incur costs ranging from $3,000 to $10,000; and 17, or 3 percent, will incur costs greater than $10,000. EPA estimated that for the rule to have a larger than 1 percent impact on the government entity with the largest cost impact, the entity would need to have revenue of less than $120 per resident. For the rule to have a larger than 1 percent impact on the smallest government entity identified in the data, the entity would need to have revenue of less than $650 per resident.

Details of these analyses are presented in Chapter 8 of the RIA, which is available in the docket.

D. Unfunded Mandates Reform Act (UMRA)

This action contains a Federal mandate under UMRA, 2 U.S.C. 1531–1538, that may result in expenditures of $100 million or more for State, local and Tribal governments, in the aggregate, or the private sector in any one year. Accordingly, EPA has prepared a written statement required under section 202 of UMRA that is included in the RIA and briefly summarized here.

Over the 23 years of implementing the RMP program and, most recently through EO 13990 listening sessions, meetings, and public hearings, EPA has engaged States and local communities to discuss chemical safety issues. In the two EO 13990 listening sessions and three proposal hearings, held between July 2021 and September 2022, States and local communities identified lack of facility coordination with local responders and the community as a key barrier to successful local community preparedness. Additionally, EPA has held consultations with States and local communities through participation in the National Association of SARA Title III

Program Officials (NASTTPO) annual meetings to discuss key issues related to chemical facility and local community coordination and the areas of the RMP regulations which need to be modernized to facilitate this coordination and improve local emergency preparedness and prevention. Key priority options discussed with NASTTPO States and local communities included improving emergency response coordination between RMP facilities and LEPCs/first responders.

This action is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. On April 7, 2022, September 1, 2022, and September 5, 2023, EPA met with small governments concerning the regulatory requirements that might affect them. Also, through the May 28, 2021, notice of virtual public listening sessions; request for public comment (86 FR 28828) and August 31, 2022, NPRM (87 FR 53556), EPA sought feedback from governmental entities while formulating the revisions in this action.

With regard to section 205 of UMRA, the Agency considered finalizing the regulatory requirements as proposed as well as the regulatory alternatives considered in Chapter 7 of the RIA. However, none of the alternative options successfully fulfilled the objectives of the rule, which seek to prevent or reduce the impacts of RMP accidents on communities near facilities. These objectives are accomplished by promoting prevention generally and through targeted enhanced measures at the most accident-prone facilities, which historically have had a disproportionate share of accidents and the costliest accidents. Some of these same facilities have widely known safer alternatives available. The objectives are also accomplished by enhancing emergency response training and planning through better information access and exchange among the facility, emergency responders, and the community potentially exposed to accidents.

A market failure results when RMP accidents impose burdens on nearby communities. Firms do not have an appropriate level of incentive to prevent and/or mitigate these external costs. The Agency believes that the rule objectives to prevent or reduce the impacts of accidents on communities near facilities are best achieved by the selected provisions for this final rule, particularly, implementation of process safeguards or IST/ISD to prevent accidents and allowing a wider segment of the public potentially affected by accidents to access emergency preparedness information.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action has tribal implications. However, it will neither impose substantial direct compliance costs on federally recognized Tribal governments, nor preempt tribal law. There are approximately 260 RMP facilities located on tribal lands. Tribes could be impacted by the final rule either as an owner or operator of an RMP-regulated facility or as a Tribal government when the Tribal government conducts emergency response or emergency preparedness activities under EPCRA.

EPA consulted with Tribal officials under the EPA Policy on Consultation and Coordination with Indian Tribes early in the process of developing this regulation to permit them to have meaningful and timely input into its development. On August 31, 2022, EPA sent a notification letter via email to Tribal leaders of all 574 federally recognized Tribes to inform them of the proposed rulemaking and to provide an opportunity to comment on the action

through a Tribal consultation meeting on September 21, 2022. Approximately 4 Tribal attendees participated in the meeting. During the consultation meeting, EPA presented information on the proposed action. A few Tribes provided comments during the webinar. No Tribes requested government to government consultation with EPA following the meeting. Additionally, EPA had an open docket for public comment on the proposal from August 31- October 31, 2022. The Agency did not receive any comments from federally recognized Tribes. The notification letter and a list of attendees at the meeting is provided in the docket for this action.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

Executive Order 13045 directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because the EPA does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. EPA believes that the revisions to the RMP regulations made by this final rule will further protect human health, including the health of children, through advancement of process safety. However, EPA's Policy on Children's Health applies to this action.

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

This action is not a "significant energy action" because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This action is not

anticipated to have notable impacts on emissions, costs, or energy supply decisions for the affected electric utility industry.

I. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

J. Executive Order 14096: Revitalizing Our Nation's Commitment to Environmental Justice for All Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on communities with environmental justice concerns.

EPA conducted an EJ analysis using the Agency's EJ screening tool, EJSCREEN and the U.S. Census Bureau's American Community Survey (ACS). The EJ analysis shows that historically underserved and overburdened populations live within proximity to RMP-regulated facilities and thus are at greater risk than other populations. The analysis also found evidence that regulated facilities are disproportionately located within historically underserved and overburdened communities. Thus, EPA recognizes that accidental releases of regulated chemicals from facilities regulated by this action will likely pose disproportionate risks to historically marginalized communities. However, EPA has concluded that the regulatory requirements will advance just treatment of those populations by reducing the disproportionate damages from accidental releases that RMP-regulated facilities might otherwise inflict on those populations. EPA's full EJ analysis is documented in "Regulatory Impact Analysis: Safer Communities by Chemical Accident Prevention Final Rule," which is available in the docket.

EPA believes that this action **is likely to reduce existing** disproportionate and adverse effects on communities with EJ concerns. Because populations living closer to facilities are more likely to be exposed if an accidental release at an RMP facility occurs, these releases pose a greater risk to these communities. Therefore, the benefits of this regulation will include reduced risk for historically underserved and overburdened populations.

EPA additionally identified and addressed EJ concerns by holding virtual public listening sessions on June 16 and July 8, 2021, and had an open docket for public comment (86 FR 28828). In the request for public comment, the Agency asked for information on the adequacy of revisions to the RMP regulations completed since 2017, incorporating consideration of climate change risks and impacts into the regulations, and expanding the application of EJ in the RMP. Following publication of the proposed rule, EPA held three public hearings (September 26, 27, and 28, 2022) and had a 60-day open public comment period. Participants in the virtual public listening sessions and hearings included a wide range of stakeholders including environmental and community groups, individual regulated facilities, industry groups, local and State governments, Federal agencies, and private citizens. Information collected through oral testimonies and written comments from the listening sessions and hearings respectively informed the proposed and final rule.

The information supporting this E.O. review is contained in Chapter 9 of the RIA, which is available in the docket for this action.

K. 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 meets the criteria set forth in defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 68

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

Dated:

Michael S. Regan,
Administrator.

For the reasons stated in the preamble, Title 40, chapter I, part 68, of the Code of Federal Regulations will be amended as follows:

PART 68—CHEMICAL ACCIDENT PREVENTION PROVISIONS

1. The authority citation for part 68 continues to read as follows:

Authority: 42 U.S.C. 7412(r), 7601(a)(1), 7661–7661f.

Subpart A- General

2. Amend § 68.3 by:

a. Adding in alphabetical order the definitions for "Active measures," "Inherently safer technology or design," "Natural hazard," "Passive measures," "Practicability," "Procedural measures,";

b. Revising the definition of "Retail facility"; and

c. Adding in alphabetical order the definitions for "Root cause," and "Third-party audit".

The additions and revisions read as follows:

§ 68.3 Definitions.

* * * * *

Active measures mean risk management measures or engineering controls that rely on mechanical or other energy input to detect and respond to process deviations. Examples of active measures include alarms, safety instrumented systems, and detection hardware (such as hydrocarbon sensors).

* * * * *

Inherently safer technology or design means risk management measures that minimize the use of regulated substances, substitute less hazardous substances, moderate the use of regulated substances, or simplify covered processes in order to make accidental releases less likely, or the impacts of such releases less severe.

* * * * *

Natural hazard means meteorological, climatological, environmental or geological phenomena that have the potential for negative impact, accounting for impacts due to climate change. Examples of such hazards include, but are not limited to, avalanche, coastal flooding, cold wave, drought, earthquake, hail, heat wave, hurricane, ice storm, landslide, lightning, riverine flooding, strong wind, tornado, tsunami, volcanic activity, wildfire, and winter weather.

* * * * *

Passive measures mean risk management measures that use design features that reduce either the frequency or consequence of the hazard without human, mechanical, or other energy input. Examples of passive measures include pressure vessel designs, dikes, berms, and blast walls.

* * * * *

Practicability means the capability of being successfully accomplished within a reasonable time, accounting for environmental, legal, social, technological and economic factors. Environmental factors would include consideration of potential transferred risks for new risk reduction measures.

Procedural measures mean risk management measures such as policies, operating procedures, training, administrative controls, and emergency response actions to prevent or minimize incidents.

* * * * *

Retail facility means a stationary source at which more than one-half of the annual income (in the previous calendar or fiscal year) is obtained from direct sales to end users or at which more than one-half of the fuel sold, by volume, is sold through a cylinder exchange program.

* * * * *

Root cause means a fundamental, underlying, system-related reason why an incident occurred that identifies a correctable failure(s) in management systems, and if applicable, in process design.

* * * * *

Third-party audit means a compliance audit conducted pursuant to the requirements of § 68.59 and/or § 68.80, performed or led by an entity (individual or firm) meeting the competency and independence requirements described in § 68.59(c) or § 68.80(c).

* * * * *

3. Amend § 68.10 by:

a. Revising paragraph (a) introductory text;

b. Redesignating paragraphs (g) through (k) as paragraphs (j) through (n); and

c. Adding new paragraphs (g) through (i).

The revisions and additions read as follows:

§ 68.10 Applicability.

(a) Except as provided in paragraphs (b) through (i) of this section, an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under § 68.115, shall comply with the requirements of this part no later than the latest of the following dates:

* * * * *

(g) By **[INSERT DATE 3 YEARS AND 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, the owner or operator shall comply with the following provisions promulgated on **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**:

(1) Standby or backup power for continuous operation of monitoring equipment associated with prevention and detection of accidental releases from covered processes in §§ 68.50(a)(3) and 68.67(c)(3);

(2) Third-party audit provisions in §§ 68.58(f), 68.58(g), 68.58(h), 68.59, 68.79(f), 68.79(g), 68.79(h), and 68.80;

(3) Incident investigation root cause analysis provisions in §§ 68.60(h) and 68.81(h);

(4) Safer technology and alternatives analysis provisions in §§ 68.67(c)(9) and 68.67(h);

(5) Employee participation provisions in §§ 68.62 and 68.83;

(6) Emergency response provisions in §§ 68.90(b) and 68.95(a); and

(7) Availability of information provisions in § 68.210(d) through (h).

(h) By March 15, 2027, or within 10 years of the date of an emergency response field exercise conducted between March 15, 2017, and August 31, 2022, in accordance with § 68.96(b)(1)(ii).

(i) By **[INSERT DATE 4 YEARS AND 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, the owner or operator shall comply with the risk management plan provisions of subpart G of this part promulgated on **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Subpart C—Program 2 Prevention Program

4. Amend § 68.48 by revising paragraph (b) to read as follows:

§ 68.48 Safety information.

* * * * *

(b) The owner or operator shall ensure and document that the process is designed in compliance with recognized and generally accepted good engineering practices.

* * * * *

5. Amend § 68.50 by revising paragraph (a)(3) and adding paragraphs (a)(5) and (6) to read as follows:

§ 68.50 Hazard review.

(a) * * *

(3) The safeguards used or needed to control the hazards or prevent equipment malfunction or human error including standby or emergency power systems; the owner or

operator shall ensure monitoring equipment associated with prevention and detection of accidental releases from covered processes has standby or backup power to provide continuous operation;

* * * * *

(5) Natural hazards that could cause or exacerbate an accidental release; and

(6) Stationary source siting, including the placement of processes, equipment, and buildings within the facility, and hazards posed by proximate stationary sources, and accidental release consequences posed by proximity to the public and public receptors.

* * * * *

6. Amend § 68.52 by adding paragraph (b)(9) to read as follows:

§ 68.52 Operating procedures.

* * * * *

(b) * * *

(9) Documentation when monitoring equipment associated with prevention and detection of accidental releases from covered processes is removed due to safety concerns from imminent natural hazards.

* * * * *

7. Amend § 68.58 by revising paragraph (a) and adding paragraphs (f) through (h) to read as follows:

§ 68.58 Compliance audits.

(a) The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart, at least every three years to verify that the procedures and practices

developed under this subpart are adequate and are being followed. When required as set forth in paragraph (f) of this section, the compliance audit shall be a third-party audit.

* * * * *

(f) The next required compliance audit shall be a third-party audit when one or more of the following conditions applies:

(1) An accidental release meeting the criteria in § 68.42(a) from a covered process at a stationary source has occurred; or

(2) An implementing agency requires a third-party audit due to conditions at the stationary source that could lead to an accidental release of a regulated substance, or when a previous third-party audit failed to meet the competency or independence criteria of § 68.59(c).

(g) (1) If an implementing agency makes a preliminary determination that a third-party audit is necessary pursuant to paragraph (f)(2) of this section, the implementing agency will provide written notice to the owner or operator that describes the basis for this determination.

(2) Within 30 days of receipt of such written notice, the owner or operator may provide information and data to, and may consult with, the implementing agency on the determination. Thereafter, the implementing agency will provide a final determination to the owner or operator.

(3) If the final determination requires a third-party audit, the owner or operator shall comply with the requirements of § 68.59, pursuant to the schedule in paragraph (h) of this section.

(4) The owner or operator may appeal a final determination made by an implementing agency under paragraph (g)(3) of this section within 30 days of receipt of the final determination. The appeal shall be made to the EPA Regional Administrator or, for determinations made by other implementing agencies, the administrator or director of such implementing agency. The

appeal shall contain a clear and concise statement of the issues, facts in the case, and any relevant additional information. In reviewing the appeal, the implementing agency may request additional information from the owner or operator. The implementing agency will provide a written, final decision on the appeal to the owner or operator.

(h) The audit and audit report shall be completed as in paragraph (a) of this section, unless a different timeframe is specified by the implementing agency.

8. Section 68.59 is added to subpart C to read as follows:

§ 68.59 Third-party audits.

(a) *Applicability*. The owner or operator shall engage a third party to conduct an audit that evaluates compliance with the provisions of this subpart C in accordance with the requirements of this section when any criterion of § 68.58(f) is met.

(b) *Third-party auditors and auditing teams*. The owner or operator shall either:

(1) Engage a third-party auditor meeting all of the competency and independence criteria in paragraph (c) of this section; or

(2) Assemble an auditing team, led by a third-party auditor meeting all of the competency and independence criteria in paragraph (c) of this section. The team may include:

(i) Other employees of the third-party auditor firm meeting the independence criteria of paragraph (c)(2) of this section; and

(ii) Other personnel not employed by the third-party auditor firm, including facility personnel.

(c) *Third-party auditor qualifications*. The owner or operator shall determine and document that the third-party auditor(s) meet the following competency and independence requirements:

(1) The third-party auditor(s) shall be:

(i) Knowledgeable with the requirements of this part;

(ii) Experienced with the stationary source type and processes being audited and applicable recognized and generally accepted good engineering practices; and

(iii) Trained and/or certified in proper auditing techniques.

(2) The third-party auditor(s) shall:

(i) Act impartially when performing all activities under this section;

(ii) Receive no financial benefit from the outcome of the audit, apart from payment for auditing services. For purposes of this paragraph, retired employees who otherwise satisfy the third-party auditor independence criteria in this section may qualify as independent if their sole continuing financial attachments to the owner or operator are employer-financed or managed retirement and/or health plans;

(iii) Ensure that all third-party personnel involved in the audit sign and date a conflict of interest statement documenting that they meet the independence criteria of this paragraph; and

(iv) Ensure that all third-party personnel involved in the audit do not accept future employment with the owner or operator of the stationary source for a period of at least two years following submission of the final audit report. For purposes of this requirement, employment does not include performing or participating in third-party audits pursuant to § 68.80 or this section.

(3) The auditor shall have written policies and procedures to ensure that all personnel comply with the competency and independence requirements of this section.

(d) *Third-party auditor responsibilities***.** The owner or operator shall ensure that the third-party auditor:

(1) Manages the audit and participates in audit initiation, design, implementation, and reporting;

(2) Determines appropriate roles and responsibilities for the audit team members based on the qualifications of each team member;

(3) Prepares the audit report and, where there is a team, documents the full audit team's views in the final audit report;

(4) Certifies the final audit report and its contents as meeting the requirements of this section; and

(5) Provides a copy of the audit report to the owner or operator.

(e) *Audit report*. The audit report shall:

(1) Identify all persons participating on the audit team, including names, titles, employers and/or affiliations, and summaries of qualifications. For third-party auditors, include information demonstrating that the competency requirements in paragraph (c)(1) of this section are met;

(2) Describe or incorporate by reference the policies and procedures required under paragraph (c)(3) of this section;

(3) Document the auditor's evaluation of the owner or operator's compliance with the provisions of this subpart to determine whether the procedures and practices developed by the owner or operator under this rule are adequate and being followed;

(4) Document the findings of the audit, including any identified compliance or performance deficiencies;

(5) Summarize any significant revisions (if any) between draft and final versions of the report; and

(6) Include the following certification, signed and dated by the third-party auditor or third-party audit team member leading the audit:

> "I certify that this RMP compliance audit report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information upon which the audit is based. I further certify that the audit was conducted and this report was prepared pursuant to the requirements of subpart C of 40 CFR part 68 and all other applicable auditing, competency, independence, impartiality, and conflict of interest standards and protocols. Based on my personal knowledge and experience, and inquiry of personnel involved in the audit, the information submitted herein is true, accurate, and complete."

(f) *Third-party audit findings*—(1) *Findings response report*. As soon as possible, but no later than 90 days after receiving the final audit report, the owner or operator shall determine an appropriate response to each of the findings in the audit report, and develop a findings response report that includes:

(i) A copy of the final audit report;

(ii) An appropriate response to each of the audit report findings;

(iii) A schedule for promptly addressing deficiencies; and

(iv) A certification, signed and dated by a senior corporate officer, or an official in an equivalent position, of the owner or operator of the stationary source, stating:

> "I certify under penalty of law that I have engaged a third party to perform or lead an audit team to conduct a third-party audit in accordance with the requirements of 40 CFR 68.59 and that the attached RMP compliance audit report was received, reviewed, and responded to under my direction or supervision by qualified personnel. I further certify that appropriate responses to the findings have been identified and deficiencies were corrected, or are being corrected, consistent with the requirements of subpart C of 40 CFR part 68, as documented herein. Based on my personal knowledge and experience, or inquiry of personnel involved in evaluating the report findings and determining appropriate responses to the findings, the information submitted herein is true, accurate, and complete. I am aware that there are significant penalties for making false material statements, representations, or certifications, including the possibility of fines and imprisonment for knowing violations."

(2) *Schedule implementation*. The owner or operator shall implement the schedule to address deficiencies identified in the audit findings response report in paragraph (f)(1)(iii) of this section and document the action taken to address each deficiency, along with the date completed.

(3) *Submission to Board of Directors*. The owner or operator shall immediately provide a copy of each document required under paragraphs (f)(1) and (2) of this section, when completed, to the owner or operator's audit committee of the Board of Directors, or other comparable committee or individual, if applicable.

(g) *Recordkeeping*. The owner or operator shall retain at the stationary source, the two most recent final third-party audit reports, related findings response reports, documentation of actions taken to address deficiencies, and related records. This requirement does not apply to any document that is more than five years old.

9. Amend § 68.60 by adding paragraph (h) to read as follows:

§ 68.60 Incident investigation.

* * * * *

(h) The owner or operator shall ensure the following are addressed when the incident in paragraph (a) of this section meets the accident history reporting requirements under § 68.42:

(1) The report shall be completed within 12 months of the incident, unless the implementing agency approves, in writing, to an extension of time; and

(2) The report in paragraph (d) of this section shall include factors that contributed to the incident including the initiating event, direct and indirect contributing factors, and root causes. Root causes shall be determined by conducting an analysis for each incident using a recognized method.

10. Section 68.62 is added to subpart C to read as follows:

§ 68.62 Employee participation.

(a) The owner or operator shall develop a written plan of action regarding the implementation of the employee participation requirements required by this section.

(1) An annual written or electronic notice shall be distributed to employees and their representatives indicating that the plan is readily available to view, and how to access the information.

(2) Training shall be provided as often as necessary to ensure employees and their representatives, and management involved in the process, are informed of the details of the plan.

(b)(1) The owner or operator shall develop and implement a process to allow employees and their representatives to report to either or both the owner or operator and EPA unaddressed hazards that could lead to a catastrophic release, accidents covered by § 68.42(a) but not reported under § 68.195(a), and any other noncompliance with this part.

(2) The employee and their representatives may choose to report either anonymously or with attribution.

(3) When a report is made to the owner or operator, a record of the report shall be maintained for three years.

(c) The owner or operator shall provide to employees and their representatives access to hazard reviews and to all other information required to be developed under this rule.

Subpart D—Program 3 Prevention Program

11. Amend § 68.65 by revising paragraphs (a) and (d)(2) to read as follows:

§ 68.65 Process safety information.

(a) The owner or operator shall complete a compilation of written process safety information before conducting any process hazard analysis required by the rule and shall keep

process safety information up to date. The compilation of written process safety information is to enable the owner or operator and the employees involved in operating the process to identify and understand the hazards posed by those processes involving regulated substances. This process safety information shall include information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process.

* * * * *

(d) * * *

(2) The owner or operator shall ensure and document that the process is designed and maintained in compliance with recognized and generally accepted good engineering practices.

* * * * *

12. Amend § 68.67 by revising paragraphs (c)(3) and (5), adding paragraph (c)(8) through (10), and adding paragraph (h) to read as follows:

§ 68.67 Process hazard analysis.

* * * * *

(c) * * *

(3) Engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases and standby or emergency power systems. (Acceptable detection methods might include process monitoring and control instrumentation with alarms, and detection hardware such as hydrocarbon sensors.); The owner or operator shall ensure monitoring equipment associated with prevention and detection of accidental releases from covered processes has standby or backup power to provide continuous operation;

* * * * *

(5) Stationary source siting, including the placement of processes, equipment, and buildings within the facility, and hazards posed by proximate stationary sources, and accidental release consequences posed by proximity to the public and public receptors;

* * * * *

(8) Natural hazards that could cause or exacerbate an accidental release;

(9) Safer technology and alternative risk management measures applicable to eliminating or reducing risk from process hazards for the following covered processes and shall meet all of the following requirements;

(i) For covered processes in NAICS codes 324 and 325, the owner or operator shall consider and document, in the following order of preference, inherently safer technology or design, passive measures, active measures, and procedural measures. A combination of risk management measures may be used to achieve the desired risk reduction.

(ii) For covered processes in paragraph § 68.67(c)(9)(ii)(A) through (C), the owner or operator shall consider and document, in the following order of preference, inherently safer technology or design, passive measures, active measures, and procedural measures. A combination of risk management measures may be used to achieve the desired risk reduction. The owner or operator shall also determine and document the practicability of the inherently safer technologies and designs considered. The owner or operator shall include in documentation any methods used to determine practicability. For any inherently safer technologies and designs implemented, the owner or operator shall document and submit to EPA a description of the technology implemented.

(A) In NAICS codes 324 and 325, located within 1 mile of another stationary source having a covered process in NAICS codes 324 or 325;

(B) In NAICS code 324 with hydrofluoric acid alkylation covered processes; and

(C) In NAICS codes 324 and 325 that have had one accident that meets the accident history reporting requirements under § 68.42 since the most recent process hazard analysis under this section.

(iii) The analysis shall be performed by a team that includes members with expertise in the process being evaluated, including at least one member who works in the process. The team members shall be documented.

(10) Any gaps in safety between the codes, standards, or practices to which the process was designed and constructed and the most current version of applicable codes, standards, or practices.

* * * * *

(h)(1) Of the covered processes listed under paragraphs (h)(1)(i) through (h)(1)(iii) of this section, the owner or operator shall implement at least one passive measure at the stationary source, or an inherently safer technology or design, or a combination of active and procedural measures equivalent to or greater than the risk reduction of a passive measure, resulting from paragraph (c)(9)(i) of this section:

(i) In NAICS codes 324 and 325, located within 1 mile of another stationary source having a covered process in NAICS codes 324 or 325;

(ii) In NAICS code 324 with hydrofluoric acid alkylation covered processes; and

(iii) In NAICS codes 324 and 325 that have had one accident that meets the accident history reporting requirements under § 68.42 since the most recent process hazard analysis under this section.

(2) If no passive measures are identified or all are not practicable, and no inherently safer technology or design is implemented, then the owner or operator shall implement at least one active measure. If no active measures are identified or all are not practicable, the owner or operator shall implement at least one procedural measure.

(3) For passive and active measures not implemented, the owner or operator shall document sufficient evidence to demonstrate to the implementing agency's satisfaction that implementing the measures is not practicable and the reasons for this conclusion. A claim that implementation is not practicable shall not be based solely on evidence of reduced profits or increased costs.

13. Amend § 68.69 by revising paragraph (a)(4) to read as follows:

§ 68.69 Operating procedures.

(a) * * *

(4) Safety systems and their functions, including documentation when monitoring equipment associated with prevention and detection of accidental releases from covered processes is removed due to safety concerns from imminent natural hazards.

* * * * *

14. Amend § 68.79 by revising paragraph (a) and adding paragraphs (f) through (h) to read as follows:

§ 68.79 Compliance audits.

(a) The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart, at least every three years to verify that the procedures and practices developed under this subpart are adequate and are being followed. When required as set forth in paragraph (f) of this section, the compliance audit shall be a third-party audit.

* * * * *

(f) The next required compliance audit shall be a third-party audit when one or more of the following conditions applies:

(1) An accidental release meeting the criteria in § 68.42(a) from a covered process at a stationary source has occurred; or

(2) An implementing agency requires a third-party audit due to conditions at the stationary source that could lead to an accidental release of a regulated substance, or when a previous third-party audit failed to meet the competency or independence criteria of § 68.80(c).

(g) (1) If an implementing agency makes a preliminary determination that a third-party audit is necessary pursuant to paragraph (f)(2) of this section, the implementing agency will provide written notice to the owner or operator that describes the basis for this determination.

(2) Within 30 days of receipt of such written notice, the owner or operator may provide information and data to, and may consult with, the implementing agency on the determination. Thereafter, the implementing agency will provide a final determination to the owner or operator.

(3) If the final determination requires a third-party audit, the owner or operator shall comply with the requirements of § 68.80, pursuant to the schedule in paragraph (h) of this section.

(4) The owner or operator may appeal a final determination made by an implementing agency under paragraph (g)(3) of this section within 30 days of receipt of the final determination. The appeal shall be made to the EPA Regional Administrator or, for determinations made by other implementing agencies, the administrator or director of such implementing agency. The appeal shall contain a clear and concise statement of the issues, facts in the case, and any relevant additional information. In reviewing the appeal, the implementing agency may request additional information from the owner or operator. The implementing agency will provide a written, final decision on the appeal to the owner or operator.

(h) The audit and audit report shall be completed as in paragraph (a) of this section, unless a different timeframe is specified by the implementing agency.

15. Section 68.80 is added to subpart D to read as follows:

§ 68.80 Third-party audits.

(a) *Applicability.* The owner or operator shall engage a third party to conduct an audit that evaluates compliance with the provisions of this subpart D in accordance with the requirements of this section when any criterion of § 68.79(f) is met.

(b) *Third-party auditors and auditing teams.* The owner or operator shall either:

(1) Engage a third-party auditor meeting all of the competency and independence criteria in paragraph (c) of this section; or

(2) Assemble an auditing team, led by a third-party auditor meeting all of the competency and independence criteria in paragraph (c) of this section. The team may include:

(i) Other employees of the third-party auditor firm meeting the independence criteria of paragraph (c)(2) of this section; and

(ii) Other personnel not employed by the third-party auditor firm, including facility personnel.

(c) *Third-party auditor qualifications*. The owner or operator shall determine and document that the third-party auditor(s) meet the following competency and independence requirements:

(1) The third-party auditor(s) shall be:

(i) Knowledgeable with the requirements of this part;

(ii) Experienced with the stationary source type and processes being audited and applicable recognized and generally accepted good engineering practices; and

(iii) Trained and/or certified in proper auditing techniques.

(2) The third-party auditor(s) shall:

(i) Act impartially when performing all activities under this section;

(ii) Receive no financial benefit from the outcome of the audit, apart from payment for auditing services. For purposes of this paragraph, retired employees who otherwise satisfy the third-party auditor independence criteria in this section may qualify as independent if their sole continuing financial attachments to the owner or operator are employer-financed or managed retirement and/or health plans;

(iii) Ensure that all third-party personnel involved in the audit sign and date a conflict of interest statement documenting that they meet the independence criteria of this paragraph; and

(iv) Ensure that all third-party personnel involved in the audit do not accept future employment with the owner or operator of the stationary source for a period of at least two years following submission of the final audit report. For purposes of this requirement, employment

does not include performing or participating in third-party audits pursuant to § 68.59 or this section.

(3) The auditor shall have written policies and procedures to ensure that all personnel comply with the competency and independence requirements of this section.

(d) *Third-party auditor responsibilities.* The owner or operator shall ensure that the third-party auditor:

(1) Manages the audit and participates in audit initiation, design, implementation, and reporting;

(2) Determines appropriate roles and responsibilities for the audit team members based on the qualifications of each team member;

(3) Prepares the audit report and, where there is a team, documents the full audit team's views in the final audit report;

(4) Certifies the final audit report and its contents as meeting the requirements of this section; and

(5) Provides a copy of the audit report to the owner or operator.

(e) *Audit report*. The audit report shall:

(1) Identify all persons participating on the audit team, including names, titles, employers and/or affiliations, and summaries of qualifications. For third-party auditors, include information demonstrating that the competency requirements in paragraph (c)(1) of this section are met;

(2) Describe or incorporate by reference the policies and procedures required under paragraph (c)(3) of this section;

(3) Document the auditor's evaluation of the owner or operator's compliance with the provisions of this subpart to determine whether the procedures and practices developed by the owner or operator under this rule are adequate and being followed;

(4) Document the findings of the audit, including any identified compliance or performance deficiencies;

(5) Summarize any significant revisions (if any) between draft and final versions of the report; and

(6) Include the following certification, signed and dated by the third-party auditor or third-party audit team member leading the audit:

> "I certify that this RMP compliance audit report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information upon which the audit is based. I further certify that the audit was conducted and this report was prepared pursuant to the requirements of subpart D of 40 CFR part 68 and all other applicable auditing, competency, independence, impartiality, and conflict of interest standards and protocols. Based on my personal knowledge and experience, and inquiry of personnel involved in the audit, the information submitted herein is true, accurate, and complete."

(f) *Third-party audit findings*— (1) *Findings response report*. As soon as possible, but no later than 90 days after receiving the final audit report, the owner or operator shall determine an appropriate response to each of the findings in the audit report, and develop a findings response report that includes:

(i) A copy of the final audit report;

(ii) An appropriate response to each of the audit report findings;

(iii) A schedule for promptly addressing deficiencies; and

(iv) A certification, signed and dated by a senior corporate officer, or an official in an equivalent position, of the owner or operator of the stationary source, stating:

"I certify under penalty of law that I have engaged a third party to perform or lead an

audit team to conduct a third-party audit in accordance with the requirements of 40 CFR 68.80 and that the attached RMP compliance audit report was received, reviewed, and responded to under my direction or supervision by qualified personnel. I further certify that appropriate responses to the findings have been identified and deficiencies were corrected, or are being corrected, consistent with the requirements of subpart D of 40 CFR part 68, as documented herein. Based on my personal knowledge and experience, or inquiry of personnel involved in evaluating the report findings and determining appropriate responses to the findings, the information submitted herein is true, accurate, and complete. I am aware that there are significant penalties for making false material statements, representations, or certifications, including the possibility of fines and imprisonment for knowing violations."

(2) *Schedule implementation*. The owner or operator shall implement the schedule to address deficiencies identified in the audit findings response report in paragraph (f)(1)(iii) of this section and document the action taken to address each deficiency, along with the date completed.

(3) *Submission to Board of Directors*. The owner or operator shall immediately provide a copy of each document required under paragraphs (f)(1) and (2) of this section, when completed, to the owner or operator's audit committee of the Board of Directors, or other comparable committee or individual, if applicable.

(g) *Recordkeeping*. The owner or operator shall retain at the stationary source the two most recent final third-party audit reports, related findings response reports, documentation of actions taken to address deficiencies, and related records.

16. Amend § 68.81 by adding paragraph (h) to read as follows:

§ 68.81 Incident investigation.

* * * * *

(h) The owner or operator shall ensure the following are addressed when the incident in paragraph (a) of this section meets the accident history reporting requirements under § 68.42:

(1) The report shall be completed within 12 months of the incident, unless the implementing agency approves, in writing, an extension of time; and

(2) The report in paragraph (d) of this section shall include factors that contributed to the incident including the initiating event, direct and indirect contributing factors, and root causes. Root causes shall be determined by conducting an analysis for each incident using a recognized method.

17. Revise § 68.83 to read as follows:

§ 68.83 Employee participation.

(a) The owner or operator shall develop a written plan of action regarding the implementation of the employee participation requirements required by this section.

(1) An annual written or electronic notice shall be distributed to employees and their representatives indicating that the plan is readily available to view and how to access the information.

(2) Training shall be provided as often as necessary to ensure employees and their representatives, and management involved in the process, are informed of the details of the plan.

(b) The owner or operator shall consult with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of process safety management in this rule.

(c) The owner or operator shall consult with employees knowledgeable in the process and their representatives on addressing, correcting, resolving, documenting, and implementing recommendations and findings of process hazard analyses under § 68.67(e), compliance audits under § 68.79(d), and incident investigations under § 68.81(e).

(d) The owner or operator shall provide the following authorities to employees knowledgeable in the process and their representatives:

(1) Recommend to the operator in charge of a unit that an operation or process be partially or completely shut down, in accordance with procedures established in § 68.69(a), based on the potential for a catastrophic release; and

(2) Allow a qualified operator in charge of a unit to partially or completely shut down an operation or process, in accordance with procedures established in § 68.69(a), based on the potential for a catastrophic release.

(e)(1) The owner or operator shall develop and implement a process to allow employees and their representatives to report to either or both the owner or operator and EPA unaddressed hazards that could lead to a catastrophic release, accidents covered by § 68.42(a) but not reported under § 68.195(a), and any other noncompliance with this part.

(2) The employee and their representatives may choose to report either anonymously or with attribution.

(3) When a report is made to the owner or operator, a record of the report shall be maintained for three years.

(f) The owner or operator shall provide to employees and their representatives access to process hazard analyses and to all other information required to be developed under this rule.

18. Amend § 68.85 by revising paragraph (b) and adding paragraph (c) to read as follows:

§ 68.85 Hot work permit.

* * * * *

(b) The permit shall document that the fire prevention and protection requirements in 29 CFR 1910.252(a) have been implemented prior to beginning the hot work operations; it shall indicate the date(s) authorized for hot work; and identify the object on which hot work is to be performed.

(c) The permit shall be retained for three years after the completion of the hot work operations.

Subpart E—Emergency Response

19. Amend § 68.90 by revising paragraph (b)(3) and adding paragraph (b)(6) to read as follows:

§ 68.90 Applicability.

* * * * *

(b) * * *

(3) Appropriate mechanisms are in place to notify emergency responders when there is a need for a response, including providing timely data and information detailing the current understanding and best estimates of the nature of the accidental release. The owner or operator may satisfy this requirement through notification mechanisms designed to meet other Federal, State or local notification requirements, provided the notification meets the requirements of this paragraph, as appropriate;

* * * * *

(6) The owner or operator maintains and implements, as necessary, procedures for informing the public and the appropriate Federal, State, and local emergency response agencies about accidental releases and partnering with these response agencies to ensure that a community notification system is in place to warn the public within the area potentially threatened by the accidental release. Documentation of the partnership shall be maintained in accordance with § 68.93(c).

20. Amend § 68.95 by revising paragraphs (a)(1)(i) and (c) to read as follows:

§ 68.95 Emergency response program.

(a) * * *

(1) * * *

(i) Procedures for informing the public and the appropriate Federal, State, and local emergency response agencies about accidental releases, including partnering with these response agencies to ensure that a community notification system is in place to warn the public within the area potentially threatened by the accidental release. Documentation of the partnership shall be maintained in accordance with § 68.93(c);

* * * * *

(c) The emergency response plan developed under paragraph (a)(1) of this section shall include providing timely data and information detailing the current understanding and best estimates of the nature of the release when an accidental release occurs and be coordinated with the community emergency response plan developed under 42 U.S.C. 11003. The owner or operator may satisfy this requirement through notification mechanisms designed to meet other Federal, State or local notification requirements, provided the notification meets the requirements of this paragraph, as appropriate. Upon request of the LEPC or emergency response officials, the owner or operator shall promptly provide to the local emergency response officials information necessary for developing and implementing the community emergency response plan.

21. Amend § 68.96 by revising paragraphs (b)(1)(i) and (b)(3) to read as follows:

§ 68.96 Emergency response exercises.

* * * * *

(b) * * *

(1) * * *

(i) *Frequency.* As part of coordination with local emergency response officials required by § 68.93, the owner or operator shall consult with these officials to establish an appropriate frequency for field exercises, and shall conduct a field exercise before March 15, 2027, and at a minimum at least once every ten years thereafter, unless the appropriate local emergency response agencies agree in writing that such frequency is impractical. If local emergency response agencies so agree, the owner or operator shall consult with local emergency response officials to establish an alternate appropriate frequency for field exercises.

* * * * *

(3) *Documentation*. The owner or operator shall prepare an evaluation report within 90 days of each field and tabletop exercise. The report shall include a description of the exercise scenario, names and organizations of each participant, an evaluation of the exercise results including lessons learned, recommendations for improvement or revisions to the emergency response exercise program and emergency response program, and a schedule to promptly address and resolve recommendations.

* * * * *

Subpart G—Risk Management Plan

22. Amend § 68.160 by adding paragraph (b)(22) to read as follows:

§ 68.160 Registration.

* * * * *

(b) * * *

(22) Method of communication and location of the notification that chemical hazard information is available to the public residing, working, or spending significant time within 6 miles of the stationary source, pursuant to § 68.210(d).

23. Amend § 68.170 by adding paragraph (e)(7) and revising paragraph (i) to read as follows:

§ 68.170 Prevention program/Program 2.

* * * * *

(e) * * *

(7) Recommendations declined from natural hazard, power loss, and siting hazard evaluations and justifications.

* * * * *

(i) The date of the most recent compliance audit; the expected date of completion of any changes resulting from the compliance audit and identification of whether the most recent compliance audit was a third-party audit, pursuant to §§ 68.58 and 68.59; and findings declined from third-party compliance audits and justifications.

* * * * *

24. Amend § 68.175 by adding paragraphs (e)(7) through (9) and revising paragraph (k) to read as follows:

§ 68.175 Prevention program/Program 3.

* * * * *

(e) * * *

(7) Inherently safer technology or design measures implemented since the last PHA, if any, and the technology category (substitution, minimization, simplification and/or moderation).

(8) Recommendations declined from natural hazard, power loss, and siting hazard evaluations and justifications.

(9) Recommendations declined from safety gaps between codes, standards, or practices to which the process was designed and constructed and the most current version of applicable codes, standards, or practices.

* * * * *

(k) The date of the most recent compliance audit; the expected date of completion of any changes resulting from the compliance audit and identification of whether the most recent compliance audit was a third-party audit, pursuant to §§ 68.79 and 68.80; and findings declined from third-party compliance audits and justifications.

* * * * *

Subpart H—Other Requirements

25. Amend § 68.210 by adding paragraphs (d) through (h) to read as follows:

§ 68.210 Availability of information to the public.

* * * * *

(d) *Chemical hazard information*. The owner or operator of a stationary source shall provide, upon request by any member of the public residing, working, or spending significant time within 6 miles of the fenceline of a stationary source, the following chemical hazard information for all regulated processes:

(1) *Regulated substances information*. Names of regulated substances held in a process;

(2) *Safety Data Sheets*. SDSs for all regulated substances located at the facility;

(3) *Accident history information*. Provide the five-year accident history information required to be reported under § 68.42;

(4) *Emergency response program*. The following summary information concerning the stationary source's compliance with § 68.10(f)(3) and the emergency response provisions of subpart E as applicable:

(i) Whether the stationary source is a responding stationary source or a non-responding stationary source;

(ii) Name and phone number of local emergency response organizations with which the owner or operator last coordinated emergency response efforts, pursuant to § 68.180; and

(iii) For stationary sources subject to § 68.95, procedures for informing the public and local emergency response agencies about accidental releases;

(5) *Exercises*. A list of scheduled exercises, excluding dates, required under § 68.96 occurring within one year from the date of request;

(6) *LEPC contact information*. Include LEPC name, phone number, and web address as available; and

(7) *Declined recommendations and justifications*. Include declined recommendations and justifications required under §§ 68.170(e)(7) and 68.175(e)(7)-(9).

(e) *Languages.* The information shall be made available in English or in at least any two other commonly spoken languages by the population potentially affected, as requested.

(f) *Notification of availability of information*. The owner or operator shall provide ongoing notification on a company website, social media platforms, or through other publicly accessible means that:

(1) Information specified in paragraph (d) of this section is available to the public residing, working, or spending significant time within 6 miles of the stationary source upon request. The notification shall:

(i) Specify the information elements, identified in paragraph (d) of this section, that can be requested; and

(ii) Provide instructions for how to request the information including verification of presence within 6-miles (e.g., email, mailing address, and/or telephone or website request);

(2) Identify where to access information on community preparedness, if available, including shelter-in-place and evacuation procedures.

(g) *Timeframe to provide requested information*. The owner or operator shall provide the requested information under paragraph (d) of this section within 45 days of receiving a request.

(h) *Recordkeeping.* The owner or operator shall maintain a record of the members of the public requesting chemical hazard information for five years.