

## **SUPPORTING STATEMENT**

**Title:** Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Safer Communities by Chemical Accident Prevention (Final Rule) (OMB Control Number 2050-NEW; EPA ICR No. 2725.02).

### **1. Necessity of Collection**

The changes to the current Risk Management Program (RMP)<sup>1</sup> regulations implemented by the Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Safer Communities by Chemical Accident Prevention (SCAAP) final rule will improve safety at facilities that use and distribute hazardous chemicals. The U.S. Environmental Protection Agency (EPA) believes that the RMP regulations have been effective in preventing and mitigating chemical accidents in the United States and that the revisions, by giving special consideration to concerns about climate change and environmental justice and by building on lessons learned from the current regulatory program, will further protect human health and the environment from chemical hazards through advancement of process safety. These revisions are informed by EPA's review of the current RMP rule and information EPA gathered from public listening sessions held in June and July 2021 and by public comments the Agency received on the proposed rule. The revisions in this final rule will improve chemical process safety, assist in planning, preparedness, and responding to RMP accidents, and improve public awareness of chemical hazards at regulated sources. To accomplish this, the final rule provisions 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.

The statutory authority for this action is provided by section 112(r) of the Clean Air Act (CAA) as amended (42 U.S.C. § 7412(r)). Each modification of the RMP rule that EPA discusses in this document is based on EPA's rulemaking authority under CAA section 112(r)(7) (42 U.S.C. § 7412(r)(7)). The agencies implementing the RMP rule use RMPs to evaluate compliance with the Chemical Accident Prevention Provisions in Title 40 of the *Code of Federal Regulations* (CFR) Part 68 and to identify sources for inspection that 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.

Specifically, the final rule addresses the following information collection activities:

#### **Rule Familiarization:**

RMP facility staff will spend time to review the final rule and determine which provisions apply to their facility.

#### **New Prevention Program Provisions:**

*Safer Technology and Alternatives Analysis (STAA)* – The final rule STAA requirement includes two parts: the initial evaluation to identify alternatives and a practicability assessment to determine the costs and assess the reasonableness of implementing technology alternatives. Under the final rule, all facilities with Program 3 processes in North American Industrial Classification System (NAICS) code 324 and 325 are required to conduct the initial evaluation. Of those facilities, facilities that have had an accident since their most recent Process Hazard Analysis (PHA) or are located within one mile of another facility with a process in NAICS code 324 or 325, also are required to conduct a practicability assessment. The final rule

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<sup>1</sup> RMP is used interchangeably throughout this document to mean Risk Management Program or risk management plan.

also requires that all facilities in NAICS 324 using hydrofluoric acid (HF) in an alkylation unit (approximately 45 facilities) conduct a practicability assessment to assess inherently safer alternatives to HF alkylation, regardless of accident history or proximity to another NAICS 324- or 325-regulated facility.

*Root Cause Analysis* – Under the current RMP rule, facilities are required to conduct an incident investigation following an incident that resulted or reasonably could have resulted in a catastrophic release. The final rule requires facilities to conduct a root cause analysis as part of an incident investigation following an RMP-reportable accident. A root cause analysis is a formal process to identify underlying reasons for failures that led to accidental releases.

*Third-party Audits* - The final rule requires Program 2 and Program 3 facilities to conduct a compliance audit at least once every three years. The final rule, also applicable to Program 2 and Program 3 processes, requires the next required compliance audit to be a third-party audit when either or both of the following conditions apply:

1. The facility has had an RMP-reportable accident; or
2. An implementing agency requires a third-party audit either due to conditions at the stationary source that could lead to an accidental release of a regulated substance, or due to a previous third-party audit that failed to meet the competency or independence criteria of 40 CFR 68.80(c).

EPA believes that these third-party audit provisions will help ensure that owners and operators of RMP facilities objectively and adequately explore all opportunities to prevent or minimize accidental releases of regulated substances to protect human health and the environment.

*Employee Participation Plan* – Under the current RMP rule, Program 3 process facilities' employee participation plans require the owner or operator to 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 (PSM). The owner or operator must provide employees and their representatives access to PHAs and to all other information required to be developed under this rule. The final rule requires that the employee participation plan include and ensure effective methods are in place so that employees and their representatives have authority to refuse to perform a task when doing so could reasonably result in a catastrophic release and to recommend to the operator in charge of a unit that an operation or process be partially or completely shut down based on the potential for a catastrophic release.

The final rule revises 40 CFR 68.83 and other aspects of employee participation to require six new components:

1. Program 2 process facilities must develop written employee participation plans of action, which detail employee roles in using reasonable judgment and communication procedures to identify, raise, and address safety concerns. Facilities must also develop and implement a process for employees to report on hazards and noncompliance and must provide employees and their representatives access to hazard reviews and all other information required to be developed under this rule.
2. The Program 3 employee participation plan must include the consultation of employees and their representatives regarding how to address, correct, resolve, document, and implement recommendations of process hazard analyses, incident investigations, and compliance audits.
3. The Program 3 employee participation plan must include and ensure that effective methods are in place so that employees knowledgeable in the process and their representatives have specific stop

work authorities based on a potential for a catastrophic release. The specific authorities must include:

- a. Recommending to the operator in charge of a unit that an operation or process be shut down, partially or completely, based on the potential for a catastrophic release.
  - b. Allowing a qualified operator in charge of a unit to shut down, partially or completely, an operation or process, based on the potential for a catastrophic release.
4. Program 3 employee participation plans must include a process for employees to report on hazards and noncompliance.
  5. Program 2 and Program 3 process facilities must provide an annual written or electronic notice to employees indicating RMP information is available.
  6. Program 2 and Program 3 process facilities must provide training to inform employees, their representatives, and management involved in the process of the details of the written employee participation plan.

These employee participation provisions will ensure that owners and operators who have not fully developed employee participation programs have additional measures in place to prevent and minimize accidental releases of RMP-regulated substances.

*Backup Power for Perimeter Monitors* – The final rule requires air control or monitoring equipment associated with prevention and detection of accidental releases from RMP-regulated processes where power loss has been identified as a major hazard to have standby or backup power. EPA believes this will help ensure continuous monitoring so that potential exposure to chemical substances can be measured during and following a natural disaster.

*RMP Justifications* – The final rule explicitly requires Program 2 and 3 facilities to address stationary source siting, natural hazards, power loss, and a Recognized and Generally Accepted Good Engineering Practice (RAGAGEP) gap analysis in their PHAs or Hazard Reviews. As such, the final rule requires facilities to submit justifications when facilities choose to decline certain recommendations such as the natural hazard, power loss, and siting evaluation recommendations. The final rule also requires that RMPs explicitly include declined PHA recommendations associated with adopting practices from the most recent version of RAGAGEP and their associated justifications. The RAGAGEP provision will also require all Program 3 facilities to include a justification for each PHA recommendation the facility declined to implement associated with adopting practices from the latest version of RAGAGEP. Likewise, the power loss provision will require Program 2 and 3 facilities to include justifications for any process without backup power. EPA believes that including these declined recommendations and associated justifications will provide useful information about potential hazards associated with a facility.

#### Emergency Response Activities:

*Community Notification of RMP Accidents* - The final rule adds a requirement that RMP facility owners and operators who designate themselves as a non-responding facility, develop and implement, as necessary, procedures for informing the public and the appropriate emergency response agencies about accidental releases of RMP-regulated substances. EPA is also requiring that responding and non-responding facilities ensure that:

1. A community notification system is in place.
2. The public is promptly notified of an RMP accident release.
3. The notification provides appropriate timely data and information to local responders with the

current understanding and best estimates of the nature of the release.

EPA expects that these provisions, in combination with the currently required annual emergency coordination meetings and notification exercises, will enhance coordinated notification to the public, improve documented accountability for the notification process, and help ensure timely decisions about notification of releases, particularly those with offsite impacts.

**Information Availability:**

The final rule requires all facilities to disclose certain chemical hazard information to the public residing within 6 miles of the facility in the language requested by the requester. The provision also requires facilities to translate the information into two languages in addition to English. EPA assumes that facilities will require identity verification, resulting in a burden for members of the public requesting information. These are new information availability requirements, not previously required. The facility or its parent company, if applicable, is also required to provide ongoing notification that the information is available upon request for those members of the public.

**2. How, By Whom, and For What Information is Collected**

*Overview of Information Collected*

**Risk Management Plans:**

The information collected in the risk management plans (RMPs) submitted to EPA are critical for assisting government agencies in assessing the quality and thoroughness of a source's hazard assessment, prevention program, and emergency response program. The information is also used by State and local emergency planners to prepare or modify community response plans, identify hazards to the community and provide a basis for working with sources to prevent accidents. The public uses the information to understand the risks posed by accidental releases and to respond to warnings and advice should a release occur.

**Risk Management Programs:**

Documentation of the implementation of risk management programs (RMPs) is necessary to assist government agencies in determining whether a source has complied with the regulations. In some cases (e.g., safety information and operating procedures), the documentation is a critical requirement of the rule and provides the basis for other rule elements. The documentation also is important to provide a basis for the facility's ability to ensure implementation (e.g., training and maintenance records), to audit compliance, and to review past activities. Furthermore, records of past analyses can limit the burden of updates by reducing the need to repeat analyses for elements that are unchanged since the previous review.

*Collection Methodology and Management* - The information required by STAA will be collected in a STAA clearinghouse.

*Collection Schedule* - For STAA, by 3 years after the effective date of the final rule, the owner or operator of sources subject to the STAA provision must have completed or updated their PHA to include a STAA.

For incident investigation root cause analysis, the owner or operator of a source that experiences any RMP-reportable accident more than 3 years after the effective date of the rule must conduct a root cause analysis for their incident investigation of the accident.

For third-party compliance audits, the owner or operator of a source where a reportable accident in an RMP-regulated process occurs after 3 years of the effective date of the final rule must obtain a third-party

audit for their next required compliance audit.

For employee participation, by 3 years after the effective date of the final rule, the owner or operator of a source must have updated or developed—and begun implementing—an employee participation plan that addresses employee consultation when resolving PHA, compliance audit, and incident investigation recommendations and decisions; stop work authorities; and RMP accident and non-compliance reporting.

For emergency response, by 3 years after the effective date of the final rule, the owner or operator of a non-responding source must have onsite documentation of emergency response public notification procedures. Also, by 3 years after the effective date of the final rule, owners or operators of non-responding and responding sources must have the means to ensure that a community notification system is in place to warn the public of releases. In addition, for any RMP-reportable accident occurring more than 3 years after the effective date of the final rule, sources must provide appropriate and timely data and information to local responders detailing their current understanding and best estimates of the nature of the release. Finally, by 3 years after the effective date of the rule, emergency exercise evaluation reports must include documentation of specific exercise elements.

For information availability, this means that by 3 years after the effective date of the final rule, the owner or operator must make the required chemical hazard information available to the public upon request and provide notification to the public that the information is available.

### **3. Electronic Submission**

In 2009, EPA instituted RMP\*eSubmit, a web-based RMP submission system, which allows sources to submit their RMP directly to EPA over the internet. RMP\*eSubmit includes pick lists for chemical names, Local Emergency Planning Committees (LEPCs), and certain other data elements from which a source may choose its responses. RMP\*eSubmit and accompanying documentation are available via EPA's website. The web-based system reduces burden for facilities by simplifying the RMP submission process. It also has improved data quality and security.

Other software applications allow processing of the RMPs and creation of a database, which are functions performed by contractors who operate EPA's RMP Reporting Center to which facilities electronically submit their RMPs. The suite of applications also includes RMP\*Info, a database with extracts from the main RMP database and query functions, and software to assist in querying the database.

The Agency performs the following activities:

- Makes the RMP submission system, database, software and forms available.
- Processes the RMPs submitted by sources into a database and makes the information available through various means.
- Answers any questions from sources concerning the submission process.
- Processes any claims of confidential business information (CBI).
- Notifies each submitter of the status of their RMP.
- Stores RMP submissions and retrieves information.
- Provides technical assistance to sources.
- Maintains the RMP database.

The EPA contractor who operates the reporting center processes electronically submitted RMPs. The Center also responds to questions from sources and handles any CBI.

EPA also has provided web-based access to the database by Federal, State and local government officials through RMP\*Info now available via the Agency's Central Data Exchange.

#### **4. Non-duplication, Consultations, and Other Collection Criteria**

In the United States, the Emergency Planning and Community Right to Know Act (EPCRA) was enacted in 1986 to promote community emergency planning and preparedness and provide local responders and the public with information about the chemical hazards in their community (42 U.S.C. 11002 et seq.). In 1990, sections 112(r) and 304 of the CAA were enacted to help prevent severe chemical facility accidents. Section 304 required the Occupational Safety & Health Administration (OSHA) to publish a chemical process safety standard (Process Safety Management, or PSM standard) to prevent accidental releases of chemicals that could pose a threat to employees. Section 112(r) required the EPA to publish Accidental Release Prevention Program regulations to prevent chemical releases or minimize their consequences if they occur. CAA section 112(r) requires the owner or operator of an affected facility to develop and file a Risk Management Plan with EPA, the U.S. Chemical Safety Board (CSB) (also established under the section), the State, and local response agencies. OSHA adopted its PSM standard (codified at 29 CFR 1910.119) in 1992 (57 FR 6403, Feb. 24, 1992). However, not all the information in the RMP registration section, and almost none of the information in the prevention program and hazard assessment sections of the RMP, is submitted to EPA under other regulations. The EPCRA section 312 Tier II forms, which also include some information similar to that in the RMP registration form, are submitted only to States and local planning authorities, not to EPA.

As discussed in more detail in the final rule, the OSHA PSM standard and EPA RMP regulations are closely aligned in content, policy interpretations, and enforcement. 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 CAA 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 continued throughout the development of this final rule and is explained further as it relates to specific provisions of the final rule in the relevant sections of the final rule.

#### **5. Impact on Small Businesses**

EPA's regulatory impact analysis (RIA) for the final rule estimates that among the 11,740 stationary sources potentially affected, the Agency has determined that 2,636 are regulated private sector small entities and 630 are small government entities. The final rule does not include any specific small entity flexibility and small entities must follow the same requirements.

The Agency has determined that among the 2,636 potentially regulated private sector small entities 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.

Based on the small entity analysis presented in the final rule RIA, EPA did not find a significant impact on a substantial number of small entities (SISNOSE) exceeding the threshold amount of 1 percent of small entity revenues.

## **6. Consequences of Non-Collection or Less Frequent Collection**

Sources are required to comply with RMP requirements, including those provided in the final rule. Less frequent collection than that specified in the rule may result in outdated emergency response contact information, personnel unacquainted with emergency response requirements, and poor response capability at the time of an accidental release.

## **7. Special Reporting Requirements**

CAA section 112(r)(7)(B)(iii) requires that sources update their RMPs periodically. To maintain consistency with OSHA PSM requirements, EPA's implementing rule requires sources to update process hazard analyses (PHAs) and hazard assessments every five years. Thus, sources are required to maintain such documentation for five years (and in the case of the PHA, for the life of the covered process), which is greater than the three years specified in Office of Management and Budget OMB's general guidelines.

## **8. 60-Day FR Notice and Consultations**

On August 31, 2022, EPA published the “RMP Safer Communities by Chemical Accident Prevention,” (SCCAP) proposed rule in the *Federal Register* (87 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 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. A copy of the proposed rule can be found in the EPA Docket ID No.: EPA-HQ-OLEM-2022-0174.

EPA received a total of 494 discrete public comments on the proposed rulemaking. Of these, 364 written comments came from unique organizations and individual members of the public. Six written comments 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. The remaining 124 discrete public comments were from members of the public who provided verbal comments at the public hearings on September 26, 27, and 28, 2022. The public comment period for the SCCAP proposed rule (Docket ID No.: EPA-HQ-OLEM-2022-0174) closed on October 31, 2022.

Discussion of public comments can be found in topics included in the final rule FRN and in the Response

to Comments document,<sup>2</sup> available in the docket for this rulemaking. EPA considered and rejected requests to extend the 60-day comment period.

## **9. Payment or Gift to Respondents**

No payment or gift is given to respondents.

## **10. Assurance of Confidentiality**

Certain elements mandated in the RMP regulation may require the submittal of data viewed as proprietary, trade secret, or confidential (e.g., confidential business information, or CBI). EPA has adopted procedures for sources to claim certain information as CBI.

## **11. Questions of a Sensitive Nature**

No questions of a sensitive nature are included in any of the information collection requirements covered in this information collection request (ICR). The information collection requested complies with the Privacy Act of 1974 and OMB Circular A-108.

## **12. Hour Burden**

In this section, EPA first describes the estimated respondent universe. EPA then estimates the annual hour burden to respondents under the information collection requirements covered in this ICR.

Data requirements and respondent activities vary by program level. Program 1 requires the smallest amount of data and respondent time, while Program 3 requires the most. Sources with Program 3 processes are those that do not meet Program 1 but are subject to OSHA's PSM Standard, or those in any of the ten NAICS codes listed in 40 CFR 68.10(d)(1). Program 2 processes are those that do not meet Program 1 or 3 eligibility requirements.

The source-level (unit) burden applied to various types of sources and sectors is based on the size of the source and on the number and complexity of the processes at the sources in each sector.

*Current RMP Facilities* - Exhibit 1 presents the numbers of facilities according to RMP reporting as of December 31, 2020, by industrial sector and chemical use.

**Exhibit 1: Number of Affected Facilities by Sector as of December 31, 2020**

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

<sup>2</sup> 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.

<b>Sector</b>	<b>NAICS Codes</b>	<b>Number of facilities</b>	<b>Chemical Uses</b>
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
<b>Total</b>		<b>11,740</b>	

*Implementing Agencies* - EPA estimates that during the period covered by this ICR, 13 State and local agencies will maintain a delegation of authority from EPA to implement the RMP program in their States.

*Local Emergency Planning Committees* - During the period covered by this ICR, 2,473 LEPCs will participate in coordination activities and emergency exercises.

Based on the above information, the total number of respondents for this ICR period is 14,226 (i.e., 11,740 sources + 13 implementing agencies + 2,473 LEPCs).

*Annual hour burden to respondents by final rule provision* – Exhibit 2 summarizes the annual hour burden to respondents under the information collection requirements covered in this ICR. Additional detail on the annual hour burden by rule provision is available in the Appendix.

**Exhibit 2: Hour Burden to Respondents by Rule Provision**

Rule Provision	Number of Respondents/Activities		3-Year Average Annual Burden (hours)	3-Year Total Burden (hours)
	Year 1*	3-Year Total		
Rule Familiarization	14,226	14,226	169,793	509,379
STAA	986	2,959	733,853	2,201,559
Root Cause	94	283	6,228	18,683
Third-party Audit	94	283	14,208	42,624
Employee Participation Plan	13,296	39,888	169,983	509,948
Emergency Backup Power	1,748	5,245	139	418
Natural Hazards	4,432	13,296	369	1,108
Facility Siting	4,432	13,296	369	1,108
RAGAGEP	2,842	8,526	237	711
Community Notification System	11,080	33,240	38,616	115,848
Information Availability	11,740	35,220	57,196	171,588
<b>Total**</b>	<b>63,984</b>	<b>166,461</b>	<b>1,190,991</b>	<b>3,572,974</b>

\* EPA assumed that the burden associated with each provision other than Rule Familiarization will be incurred by the same number of respondents in Years 1, 2, and 3. Rule Familiarization is anticipated to be incurred in Year 1 only.

\*\*Totals may not sum due to rounding.

**13. Estimate for Total Annual Cost Burden (not including hour burden)**

**Total Annual Cost Burden Estimate:** \$126,796,471 average annual cost (\$380,389,412 total cost over 3 years); includes \$12,413,710 average annual O&M cost (\$37,241,130 total O&M cost over 3 years) and \$78,400 average annual capital cost (\$235,200 total capital cost over 3 years).

**Methodology:**

To calculate per-facility compliance costs, EPA multiplied the unit labor burden estimates for compliance activities by hourly labor rates obtained from the Bureau of Labor Statistics (BLS) May 2022 Occupational Employment and Wage Statistics.<sup>3</sup> EPA constructed a weighted wage rate for different occupational categories. For all rule provisions, labor hours were assumed to be distributed across six general labor categories: Management, Corporate Management, Attorneys, Engineers, Production Staff, and Local Responders. The weighted wage rates for complex facilities (NAICS 324 and 325) were estimated separately from simple facilities because wages paid by these facilities are higher than in wholesale and government sectors, which dominate the simple facilities category. For each of the NAICS codes representing industries in the simple facilities category that are affected by the rule provisions (Food and Beverage, Agricultural Facilities, etc.), standardized BLS Occupation Titles were identified to correspond to the six general labor categories. BLS wages were then adjusted to account for fringe benefits and overhead. Fringe benefits includes payments to cover items such as paid leave, supplemental

<sup>3</sup> See [https://www.bls.gov/oes/2022/may/oes\\_nat.htm](https://www.bls.gov/oes/2022/may/oes_nat.htm).

pay, insurance, and retirement. Overhead includes resources to cover items such as office space and administrative personnel issues. Applying the December 2022 national average benefit ratio of 0.45<sup>4</sup> and an overhead cost ratio not inclusive of benefits of 0.3, the Agency multiplied the wage rates for each BLS Occupation Title by a factor of 1.75 to create a fully loaded wage rate.<sup>5</sup> After loaded wage rates were established for each industry, they were combined to form a weighted average based on the prominence of each industry within its universe of facilities, either simple or complex. Exhibit 3 presents the wage rates EPA used in the analysis.

**Exhibit 3: Weighted-Average Loaded Hourly Wage Rates (2022 Dollars)**

Labor Category	Simple Facilities	Complex Facilities
Management	\$110.70	\$137.52
Corporate Management	\$102.02	\$136.70
Attorneys	\$150.79	\$205.84
Engineers	\$74.33	\$99.12
Production Staff	\$43.21	\$66.71
Local Responders	\$72.30	\$72.30

Sources: [https://www.bls.gov/oes/2022/may/oes\\_nat.htm](https://www.bls.gov/oes/2022/may/oes_nat.htm) and <http://www.bls.gov/news.release/ecec.nr0.htm>.

*Capital Costs* – The analysis includes the capital cost associated with acquiring a generator to provide backup power for perimeter monitoring. The costs of equipment purchased for facilities required to implement backup power are not amortized. Although individual equipment items are relatively low cost, some facilities may choose to finance equipment purchases to spread the costs over several years, while others may treat them as an operating expense and pay them in a single year. By not amortizing equipment costs in this analysis, EPA is making the conservative assumption that facilities will pay these initial costs in a single year (year 1), which EPA believes is likely given the assumption that the generator for backup power cost will cost \$3,000 and that each facility will purchase only one generator that will last for the entire three-year period covered by this supporting statement.

*Operating & Maintenance (O&M) Costs* – The analysis used an ongoing cost when costs for years 2 and 3 of the ICR period (and beyond) were different from the initial cost components. If costs for years 2 and 3 were the same as the initial year (with some variation based on the annual frequency), then multiplying the initial cost by the annual frequency accounted for any continuing costs.

Other costs that are included in the analysis include:

- For the root cause analysis provision, the analysis includes a cost for simple facilities that will need a trained facilitator to assist with the investigation.
- For the third-party audit provision, the analysis includes a cost for the auditor.
- For the emergency back-up power provision, the analysis includes a cost for a generator, including operating and maintenance costs.
- For the information availability provision, the analysis includes a cost for facility translation of RMP information requested by the public and for the public's cost related to ID verification.

*Bottom Line Burden Hours and Costs* - Exhibit 4 presents the annual average and three-year total for respondent burden and cost. Exhibit 4 also summarizes the total cost associated with all the requirements covered in this ICR. EPA estimates the first year's cost of this ICR to be \$160.9 million and the following years, including years 2 and 3 of this ICR period, to be \$109.7 million each.

<sup>4</sup> BLS Employer Costs for Employee Compensation. For December 2022, Table 1 shows that for civilian workers, on average for the nation, fringe benefits were 31.0% of total compensation, and 44.9% of wages.

<sup>5</sup> For details explaining this approach, please see Handbook on Valuing Changes in Time Use Induced by Regulatory Requirements and Other EPA Actions, National Center for Environmental Economics, EPA-236-B-15-001 December 9, 2020.

**Exhibit 4: Total Burden and Cost for Respondent Burden,  
3-Year Total and Average Annual (2022 Dollars)**

Rule Provision	Total Labor Burden (hours)		Labor Cost		Capital Costs		O&M Costs		Total Cost	
	3-Year Total	3-Year Average	3-Year Total	3-Year Average	3-Year Total	3-Year Average	3-Year Total	3-Year Average	3-Year Total	3-Year Average
Rule Familiarization	509,379	169,793	\$50,939,073	\$16,979,691	\$0	\$0	\$0	\$0	\$50,939,073	\$16,979,691
STAA	2,201,559	733,853	\$219,208,884	\$73,069,628	\$0	\$0	\$0	\$0	\$219,208,884	\$73,069,628
Root Cause	18,684	6,228	\$2,105,001	\$701,667	\$0	\$0	\$193,278	\$64,426	\$2,298,277	\$766,092
Third-party Audit	42,624	14,208	\$4,581,825	\$1,527,275	\$0	\$0	\$17,985,717	\$5,995,239	\$22,567,542	\$7,522,514
Employee Participation Plan	509,949	169,983	\$34,419,474	\$11,473,158	\$0	\$0	\$0	\$0	\$34,419,474	\$11,473,158
Emergency Backup Power	417	139	\$47,394	\$15,798	\$235,200	\$78,400	\$141,120	\$47,040	\$423,714	\$139,238
Natural Hazards	1,107	369	\$126,921	\$42,307	\$0	\$0	\$0	\$0	\$126,921	\$42,307
Facility Siting	1,107	369	\$126,921	\$42,307	\$0	\$0	\$0	\$0	\$126,921	\$42,307
RAGAGEP	711	237	\$82,746	\$27,582	\$0	\$0	\$0	\$0	\$82,746	\$27,582
Community Notification System	115,848	38,616	\$11,918,073	\$3,972,691	\$0	\$0	\$0	\$0	\$11,918,073	\$3,972,691
Information Availability	171,588	57,196	\$19,356,771	\$6,452,257	\$0	\$0	\$18,921,015	\$6,307,005	\$38,277,786	\$12,759,262
<b>Total*</b>	<b>3,572,973</b>	<b>1,190,991</b>	<b>\$342,913,083</b>	<b>\$114,304,361</b>	<b>\$235,200</b>	<b>\$78,400</b>	<b>\$37,241,130</b>	<b>\$12,413,710</b>	<b>\$380,389,412</b>	<b>\$126,796,471</b>

\* Totals may not sum due to rounding.

**14. Annualized Costs to the Federal Government**

The final rule provisions are not expected to create additional burden to the Federal government beyond what is already required under the existing RMP rule.

**15. Reasons for Program Changes or Adjustments on Burden Worksheet**

This is a new collection.

**16. Published Results**

RMPs prepared and submitted pursuant to CAA section 112(r) are, by statute, available to the public. Members of the general public may obtain RMP data by visiting a designated federal reading room or by contacting their State Emergency Response Commission (SERC) or Local Emergency Response Commission (LEPC) public contact. A member of the general public may also submit an official Freedom of Information Act request to obtain non-Offsite Consequences Analysis RMP data.

**17. Approval for not displaying OMB Expiration Date**

The Agency plans to display the expiration date for OMB approval of the information collection on all instruments.

**18. Exceptions to the “Certification for Paperwork Reduction Act Submissions”**

This information collection complies with all provisions of the Certification for Paperwork Reduction Act Submissions.

## Appendix

This appendix includes two sections (1) Burden Hours by Rule Provision and (2) Cost for Respondent Burden by Rule Provision.

### Burden Hours by Rule Provision

*Familiarization with Regulations* - EPA has adopted a methodology that assigns labor estimates based on facility types to reflect that certain facilities will have to dedicate more time to familiarize themselves with rule provisions that apply only to them. Most of the final rule provisions revise current requirements rather than introducing completely new provisions. Many of the provisions are straightforward, e.g., those regarding Information Availability. Others apply only after an RMP-reportable accident, e.g., root cause analysis. Still others, such as the STAA, are expected to take time to understand; however they apply to a limited number of facilities. EPA projects that the time facilities spend to review the final rule and determine which provisions apply will be consistent with the time they spent to review the 2017 amendments rule because the number and content of provisions are similar. EPA projects that all facilities with simple processes will need five hours to review the rule as will the few complex facilities in Program 1 and Program 2. Complex facilities in Program 3 are projected to spend 292 hours reviewing the rule. LEPC's are projected to spend five hours reviewing the rule. Delegated State and local implementing agencies are projected to spend four hours reviewing the rule.

**Exhibit 5: Hour Burden for Rule Familiarization**

Respondent/ Facility Type	Hours Required Per Respondent	Number of Respondents		3-Year Annual Average Burden (hours)	3-Year Total Burden (hours)
		Year 1*	3-Year Total		
<b>Total</b>		<b>14,226</b>	<b>14,226</b>	<b>169,793</b>	<b>509,379</b>
Simple Facilities	5	10,082	10,082	16,803	50,410
P1 and 2 Complex Facilities	5	131	131	218	655
P3 Complex Facilities	292	1,527	1,527	148,628	445,884
LEPCs	5	2,473	2,473	4,122	12,365
Delegated Implementing Agencies	5	13	13	22	65

\* EPA assumed the burden associated with rule familiarization would be incurred by all facilities in year 1.

*Safer Technology Alternatives Analysis (STAA)* - An initial analysis and documentation is required of all facility processes. EPA believes that some facilities may already have conducted such analyses but has taken the conservative approach of assuming that all facilities subject to the STAA provision will conduct them for all processes as a result of the final rule. Following the initial analysis, EPA is finalizing the requirement that a practicability assessment be conducted if the initial analysis determines the existence of inherently safer alternatives. EPA expects a practicability assessment to occur only when warranted by the outcome of an initial analysis. EPA also anticipates that some facilities will conduct practicability studies to address alternatives considered in multiple initial analyses. Consequently, some complex firms

are assumed to conduct practicability studies that address up to 12 different alternatives. EPA is retaining the estimates of the hours required to conduct an initial analysis from the 2017 amendments rule RIA and updating the costs to 2022 dollars. For large complex facilities, EPA estimates that a total of 738 engineering hours will be required,<sup>6</sup> for Small/Medium facilities, a total of 130 hours will be required (20 hours of management, 0.5 hours of corporate management, 3.5 hours of attorney time, 82.5 hours of engineering, and 23.5 hours of production staff support).<sup>7</sup>

The technical practicability assessment considers the extent of process redesign, its engineering implications, and possible costs. To estimate the cost of the practicability study, referred to in some literature and comments as a feasibility study, EPA maintains the approach developed for the amendments rule RIA. That approach is to identify “reference” STAA projects for the sectors affected by the provision, estimate costs of the reference projects, and apply a percentage to the project cost to calculate the practicability study cost. EPA adopts the same 1.2 percent of project costs that was estimated for the amendments rule RIA.<sup>8</sup> EPA then applies the 1.2 percentage estimate to project costs to estimate the practicability study cost (see the Regulatory Impact Analysis for the final rule for additional detail; Section 4.4).

**Exhibit 6: Hour Burden for STAA**

Facility Type	Hours Required Per Respondent	Number of Facilities		3-Year Average Annual Burden (hours)	3-Year Total Burden (hours)
		Year 1*	3-Year Total		
<b>Total</b>		<b>986</b>	<b>2,959</b>	<b>733,853</b>	<b>2,201,559</b>
<b>Initial Phase (Per Process)</b>					
Refineries	738	307	921	226,566	679,698
Chemical Manufacturers	130	560	1,679	72,774	218,322
<b>Practicability Assessment (Per Facility)</b>					
Refineries - HF	22,446.6	8	25	188,552	565,656
Refineries - Non HF	22,446.6	9	28	210,998	632,994
Chemical Manufacturers	343.4	102	305	34,963	104,889

\* EPA assumed that the burden associated with this provision would be incurred by the same number of facilities in Years 1, 2, and 3.

<sup>6</sup> Labor hours are taken from average unit cost estimate submitted by Public Comment EPA-HQ-OEM-2015-0725-0579 provided by AFPM. EPA derived labor hours from the unit cost estimate provided by the commenter using standard wage rates.

<sup>7</sup> Labor hours are taken from the midpoint of the high and low labor hour estimates submitted by Public Comment EPA-HQ-OEM-2015-0725-0594 made by CSAG. EPA used the midpoint of the commenter’s high and low labor hour estimates to represent the labor burden of small/medium complex facilities.

<sup>8</sup> For a detailed explanation of how the estimate was developed, see Appendix D in the amendments rule final RIA: US EPA. Regulatory Impact Analysis. Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7). Dec 16, 2016. (EPA-HQ-OEM-2015-0725-0734).

*Root Cause Analysis* - Facilities in Programs 2 and 3 that have had an RMP-reportable accident are required to determine the underlying causes as part of their incident investigation. A root cause analysis is a structured process led by a person trained in the methodology. The time required may vary considerably based on the complexity of the processes involved.

In the baseline, facilities are already required to conduct incident investigations. Management time is expected to be devoted primarily to decisions concerning resolution of corrective actions arising from the investigation. EPA assumes that these activities would require roughly the same amount of time whether corrective actions relate to root causes or other contributing causes. For simple facilities, EPA assumed that labor for root cause analyses requires management time and additional time evenly distributed between production staff and engineers. For complex facilities, in addition to facility management, EPA estimates that due to the facility's size and complexity, attorney hours would be required, along with the acknowledgment of corporate management, requiring 0.5 hours of corporate manager time. EPA also estimates that multiple hours of engineering and production staff will be required to conduct the analysis.

Complex facilities are estimated to require 132.5 total hours (68 hours of management, 0.5 hours of corporate management, 6 hours of attorneys, 30 hours of engineers, and 28 hours of production staff) for a root cause analysis and simple facilities are estimated to require 14 total hours (6 hours of management, 4 hours of engineering, and 4 hours of production). These hour estimates apply to root cause analyses of RMP-reportable accidents and reflect the additional time required for root cause analyses over and above incident investigation.

**Exhibit 7: Hour Burden for Root Cause Analysis**

<b>Facility Type</b>	<b>Hours Required Per Respondent</b>	<b>Number of Facilities</b>		<b>3-Year Average Annual Burden (hours)</b>	<b>3-Year Total Burden (hours)</b>
		<b>Year 1*</b>	<b>3-Year Total</b>		
<b>Total</b>		<b>94</b>	<b>283</b>	<b>6,228</b>	<b>18,683</b>
P2 Accidents - simple	14	13	38	179	538
P2 Accidents - complex	132.5	0	1	27	80
P3 Accidents - simple	14	40	121	563	1,688
P3 Accidents - complex	132.5	41	124	5,459	16,377

\* EPA assumed that the burden associated with this provision would be incurred by the same number of facilities in Years 1, 2, and 3.

*Third-party Audits* - The current rule requires Program 2 and Program 3 facilities to conduct a compliance audit at least once every three years. The final rule requires Program 2 and Program 3 facilities that have had two RMP-reportable accidents within the past five years, or facilities with a Program 3 process in NAICS codes 324 or 325 that have had one accident and are located within one mile of another facility with a process in NAICS codes 324 or 325, to contract with an independent third-party to conduct the next required audit.

**Exhibit 8: Hour Burden for Third Party Audits**

Facility Type	Hours Required Per Respondent	Number of Facilities		3-Year Average Annual Burden (hours)	3-Year Total Burden (hours)
		Year 1*	3-Year Total		
<b>Total</b>		<b>94</b>	<b>283</b>	<b>14,208</b>	<b>42,624</b>
Simple 0-19 FTEs	72	15	46	1,109	3,326
Simple 20-99 FTEs	132	8	24	1,056	3,168
Simple 100+ FTEs	180	26	78	4,680	14,040
Complex 0-19 FTEs	72	2	5	115	346
Complex 20-99 FTEs	132	8	23	1,003	3,010
Complex 100+ FTEs	180	32	97	5,796	17,388
Small government (0-99 FTE)	110	3	9	330	990
Large Government (100+ FTE)	198	1	2	119	356

\* EPA assumed that the burden associated with this provision would be incurred by the same number of facilities in Years 1, 2, and 3.

*Employee Participation Plan* - Facilities with Program 2 processes previously were not required to have an employee participation plan. Therefore, they will need to develop an employee participation plan. Training employees on the employee participation plan or the updated plan is assumed to be covered by ongoing training related to the prevention program. Therefore, EPA estimates the cost for Program 2 facilities to develop a new employee participation plan and Program 3 facilities to make minor adjustments to current employee participation plans.

EPA assumes that the development of an employee participation plan for a facility with Program 2 processes is a comparable burden to that for developing an employee participation plan for a facility with Program 3 processes. The 1996 RMP RIA did not include costs for employee participation plans for facilities with Program 3 processes, based on the assumption that those costs were already adequately accounted for under the OSHA PSM program. EPA therefore relied on the 1992 OSHA PSM RIA as the basis for the costs for employee participation plans for facilities with Program 2 processes. Facilities with Program 3 processes will need to update current employee participation plans. EPA assumes that this will be a minimal effort, and that regardless of facility complexity, 0.5 hours for an engineer and 0.5 hours for a production level staff will be required.

**Exhibit 9: Hour Burden for Employee Participation Plan Activities**

Respondent/ Facility Type	Hours Required Per Respondent	Number of Respondents		3-Year Average Annual Burden (hours)	3-Year Total Burden (hours)
		Year 1*	3-Year Total		
P2 requirement to develop new EPP					
Simple 0-19 FTEs	1.5	3,415	10,245	5,123	15,368
Simple 20+ FTEs	3.5	496	30,735	1,736	5,208
Complex 0-19 FTEs	1.5	29	87	44	131
Complex 20+ FTEs	3.5	35	105	123	368
P3 requirement to update existing EPP					
Simple	1	5,578	16,734	5,578	16,734
Complex	1	1,527	4,581	1,527	4,581
P2 requirement to train employees on EPP					
Trained Employees	0.5	12,159	36,476	6,079	18,238
Facility	1	795	2,385	795	2,385
P3 requirement to train employees on EPP					
Trained Employees	0.5	295,116	885,347	147,558	442,674
Facility	1	1,421	4,263	1,421	4,263

\* EPA assumed that the burden associated with this provision would be incurred by the same number of facilities in Years 1, 2, and 3.

*Emergency Backup Power for Perimeter Monitors, Hazard Evaluation Amplifications, and RAGAGEP Gap Analysis* - EPA is finalizing the requirement for perimeter monitoring equipment associated with prevention and detection of accidental releases from RMP-regulated processes to have standby or backup power to ensure compliance with the intent of the rule. Facilities with perimeter monitoring equipment that do not have backup power will need to acquire backup power. Many continuous emissions monitoring systems have low power requirements. The final rule requires Program 2 and 3 facilities to include in their RMP a justification for why the facility has not installed emergency backup power for each process without emergency backup power.

EPA is also finalizing the requirement for Program 2 and 3 facilities to address stationary source siting, natural hazards, power loss, and a RAGAGEP gap analysis in their PHAs or Hazard Reviews to ensure compliance with the intent of the rule. The stationary source siting and natural hazards provisions will require all Program 2 and 3 facilities to include a justification in the RMP for each stationary source siting or natural hazards recommendation the facility declined to implement. The RAGAGEP provision will also require all Program 3 facilities to include a justification for each PHA recommendation the facility declined to implement associated with adopting practices from the latest version of RAGAGEP. The RMP justifications will involve selecting from a dropdown menu of justification options. EPA assumes facilities already address these issues and that language is just amplifying these implicit requirements therefore EPA assumes that this will be a minimal effort regardless of facility complexity. EPA assumes facilities will take five minutes of manager time to identify which justification applies to a given declined recommendation or process without backup power.

**Exhibit 10: Hour Burden for RMP Justifications**

Facility Type	Hours Required Per Respondent	Number of Facilities		3-Year Average Annual Burden (hours)	3-Year Total Burden (hours)
		Year 1*	3-Year Total		
Emergency Backup Power for Perimeter Monitors - Justification for No Backup Power					
Complex	.08	176	527	15	44
Simple	.08	1,494	4,483	125	374
Facility Siting					
Complex	.08	636	1,909	53	159
Simple	.08	3,796	11,387	316	949
Natural Hazards					
Complex	.08	636	1,909	53	159
Simple	.08	3,796	11,387	316	949
RAGAGEP					
Complex	.08	611	1,832	51	153
Simple	.08	2,231	6,694	186	558

\* EPA assumed that the burden associated with this provision would be incurred by the same number of facilities in Years 1, 2, and 3.

*Community Notification System* – The final rule will require all facilities with Program 2 or 3 processes to provide accidental release notification and data to local responders and ensure that a community notification system is in place. The presence of State and/or local Integrated Public Alert and Warning System (IPAWS) alerting authorities covering all 50 States plus D.C., Puerto Rico, and the U.S. Virgin Islands implies that the infrastructure is in place nationwide for facilities to ensure community notification. Therefore, the direct cost associated with the provision will be coordination between the facilities and local responders.

EPA assumes all facilities with Program 2 or 3 processes will have to take some additional steps to coordinate with local responders to ensure a process is in place to transfer accidental release notification and data to local responders and ensure the successful ability to use a community notification system. EPA assumes simple facilities will require an additional 2 hours of facility management time and an additional 1 hour of local responder time for them to communicate with each other about a community notification system and for the facility to provide any additional information necessary for coordination and document this additional coordination. EPA assumes the additional coordination time for complex facilities will be approximately double that of simple facilities.

**Exhibit 11: Hour Burden for Community Notification System**

Facility Type	Hours Required Per Respondent	Number of Respondents		3-Year Average Annual Burden (hours)	3-Year Total Burden (hours)
		Year 1*	3-Year Total		
Facility Burden					
Complex	4	1,792	5,376	7,168	21,504
Simple	2	9,288	27,864	18,576	55,728
LEPC Burden					
Complex	2	1,792	5,376	3,584	10,752
Simple	1	9,288	27,864	9,288	27,864

\* EPA assumed that the burden associated with this provision would be incurred by the same number of facilities in Years 1, 2, and 3.

*Information Availability* – The final rule will require facilities to make certain information available upon request to community members living, working, or spending significant amounts of time within 6 miles of a facility either through file sharing, providing information at a public library or other public offices, or providing it via e-mail or on the facility's website. The provision will require facilities to inform the public about what information is available upon request and how to obtain the requested information. The information elements should be readily available to facility managers because most of the information is already compiled for compliance with various health and safety regulations. Especially for simple facilities, this information is unlikely to change much from year to year; the only cost associated with this element is the time required to collect and review the information for accuracy.

EPA assumes, on average, facilities will receive one information request in any given year. The analysis estimates that simple facilities will spend 2 hours reviewing the information to ensure that it is up-to-date. Complex facilities may have more information to review because they may manufacture, process, and use multiple regulated substances in multiple processes. The analysis estimates that small complex facilities will spend 4 hours collecting and reviewing the information. Large complex facilities were estimated to spend 54 hours because management and possibly counsel will need to ensure that the information was not subject to any restrictions related to security or CBI concerns.

**Exhibit 12: Hour Burden for Information Availability**

Facility Type	Hours Required Per Respondent	Number of Facilities		3-Year Average Annual Burden (hours)	3-Year Total Burden (hours)
		Year 1*	3-Year Total		
<b>Total</b>		<b>11,740</b>	<b>35,220</b>	<b>57,196</b>	<b>171,588</b>
Facility Burden to Collect, Summarize, Review and Disclose					
Small Complex	4	1,050	3,150	4,200	12,600
Large Complex	54	608	1,824	32,832	98,496
Simple	2	10,082	30,246	20,164	60,492

\* EPA assumed that the burden associated with this provision would be incurred by the same number of facilities in Years 1, 2, and 3.

### Cost for Respondent Burden by Rule Provision

Exhibits 13 through 20 present respondent labor costs based on the labor burden and labor rates presented previously.

*Familiarization with the Regulations* - EPA analyzed the cost of rule familiarization, which, while not a provision of the final rule, is an activity that occurs under every rulemaking.

**Exhibit 13: Estimated Labor Costs for Rule Familiarization (2022 dollars)**

Facility Type	Unit Cost	Facilities	Total Cost (incurred in Year 1)
Simple	\$553	10,082	\$5,580,285
Program 1 and Program 2 Complex	\$688	131	\$90,076
Program 3 Complex	\$28,744	1,527	\$43,892,735
LEPCs	\$553	2,473	\$1,368,781
Delegated Implementing Agencies	\$553	13	\$7,195
<b>Total</b>		<b>14,226</b>	<b>\$50,939,073</b>

*Safer Technology Alternatives Analysis (STAA)* – EPA believes States and Contra Costa County, California, which have existing requirements similar to the STAA requirement, are likely already conducting activities that will satisfy EPA’s new requirement. EPA also believes this cost will be reduced after the first five-year PHA cycle because after the initial PHA, EPA requires owners/operators to update and revalidate a PHA to ensure that the PHA is consistent with the current processes. Revalidation is a much less costly activity than conducting the initial PHA. EPA believes the cost of an initial STAA evaluation and practicability assessment will likewise be lower after the first submission; that is, in all subsequent 5-year submissions. However, EPA estimates this cost as identical in both the first and second five-year cycles in the period of analysis for affected facilities with accidents. For the remaining facilities, EPA assumes the cost in the second five-year cycle will average 18% of the cost in the first five-year cycle.

**Exhibit 14: Estimated Annualized Costs for STAA Provision (2022 dollars)**

Facility Type	Unit Cost	Units	Total Annualized Cost
<b>Initial Phase Analysis</b>			
Refineries	\$73,149	307	\$22,456,638
Chemical Manufacturers	\$13,216	560	\$7,436,475
<b>Total</b>		<b>867</b>	<b>\$29,893,113</b>
<b>Practicability Analysis</b>			
Refineries – HF	\$4,390,674	8	\$36,881,660
Refineries – Non-HF	\$306,326	9	\$2,879,465
Chemical Manufacturers	\$33,550	102	\$3,415,390
<b>Total</b>		<b>120</b>	<b>\$43,176,515</b>
<b>Grand Total</b>			<b>\$73,069,628</b>

\*Totals may not sum due to rounding.

*Root Cause Analysis* – Prior to the final rule, facilities were already required to conduct incident investigations; however, EPA expects additional time will be required for the more rigorous root cause analysis. Management time is expected to be devoted primarily to decisions concerning resolution of corrective actions arising from the investigation. For simple facilities, EPA assumed that labor for root cause analyses will require management time and additional time evenly distributed between production staff and engineers. For complex facilities, in addition to facility management, EPA estimated that due to the facility’s size and complexity, attorney hours will be required, along with an estimated 0.5 hours of corporate management time. EPA also estimated that multiple hours of engineering and production staff will be required to conduct the analysis.

Complex facilities are estimated to require 132.5 total hours (68 hours of management, 0.5 hours of corporate management, 6 hours of attorneys, 30 hours of engineers, and 28 hours of production staff) for a root cause analysis and simple facilities are estimated to require 14 total hours (6 hours of management, 4 hours of engineering, and 4 hours of production). These hour estimates apply to root cause analyses of RMP-reportable accidents and reflect the additional time required for root cause analyses over and above incident investigation. The estimated costs of this provision are provided in Exhibit 15.

**Exhibit 15: Estimated Annualized Labor Costs for Root Cause Incident Investigation  
(2022 dollars)**

Facility Type	Unit Cost	Avg. Annual Number of Accidents (2016-2020) per year	Total Annualized Cost
P2 Accident - Simple	\$1,134	12.8	\$14,519
P2 Accident - Complex	\$15,496	0.2	\$3,099
P3 Accident - Simple	\$1,134	40.2	\$45,600
P3 Accident - Complex	\$15,496	41.2	\$638,448
<b>Total</b>		<b>94.4</b>	<b>\$727,651</b>

*Third-party Audits* - The analysis projects that the annual number and distribution of accidents among types of facilities will remain the same and that in any one year, the number of facilities conducting a third-party audit will be equal to the number of active facilities with two or more accidents, or one accident at a facility with a NAICS 324 or 325 Program 3 process within 1 mile of another facility with a 324 or 325 process within a five-year period.<sup>9</sup> That is, although the approximately 94 third-party audits for the Program 2 and Program 3 facilities that had two or more reportable accidents (and facilities with a Program 3 NAICS 324 or 325 process that had one reportable accident) from 2016 to 2020 may occur up to three years after the five-year period of releases, depending on when the previous audit occurred, the analysis projects over time that 94 facilities would conduct such an audit each year.<sup>10</sup> The breakout for costs is shown in Exhibit 16.

**Exhibit 16: Estimated Annualized Labor Costs for Third-party Audits (2022 dollars)**

Facility Type	Unit Cost	Avg. Annual Number of Accidents (2016-2020) per year	Total Annualized Cost
Simple w/ 0-19 FTEs	\$8,291	15.4	\$127,681
Simple w/ 20-99 FTEs	\$13,624	8	\$108,988
Simple w/ 100+ FTEs	\$16,173	26	\$420,494
Complex w/ 0-19 FTEs	\$10,448	1.6	\$16,717
Complex w/ 20-99 FTEs	\$17,316.8	7.6	\$131,608
Complex w/ 100+ FTEs	\$20,999	32.2	\$676,172
Small Government	\$10,358	3	\$31,075
Large Government	\$24,234	0.6	\$14,540
<b>Total</b>		<b>94.4</b>	<b>\$1,527,275</b>

*Employee Participation Plan* - The RMP rule currently requires only facilities with Program 3 processes to develop an employee participation plan. The final rule would require all facilities with a Program 2 process to newly develop an employee participation plan, in addition to facilities with Program 3 processes. These newly developed employee participation plans, as well as all facilities with Program 3 processes which already have an employee participation plan, would need to include newly explicit language for reporting RMP-reportable accidents or other related RMP non-compliance issues. Exhibit 17 presents the costs for the provision.

<sup>9</sup> EPA recognizes that subsequent to the final rule being published, accident rates may change.

<sup>10</sup> The number of audits may be overstated because some facilities will have the same set of reportable accidents in multiple five-year periods.

**Exhibit 17: Estimated Annualized Labor Costs for Employee Participation Plan Provision  
(2022 dollars)**

Facility Type	Unit Cost	Facilities	Total Annualized Cost
<b>Program 2 requirement to develop new employee participation plan</b>			
Simple 0-19 FTEs	\$96	3,415	\$327,602
Simple 20+ FTEs	\$245	496	\$121,314
Complex 0-19 FTEs	\$132	29	\$3,842
Complex 20+ FTEs	\$331	35	\$11,575
<b>Total</b>		<b>3,975</b>	<b>\$464,333</b>
<b>Program 3 requirement to update current employee participation plan</b>			
Simple	\$59	5,578	\$327,801
Complex	\$83	1,527	\$126,612
<b>Total</b>		<b>7,105</b>	<b>\$454,413</b>
<b>Program 2 requirement to train employees on employee participation plan</b>			
Trained Employees	\$33	60,793	\$405,571
Facilities	\$138	3,975	\$109,329
<b>Total</b>		<b>3,975</b>	<b>\$514,900</b>
<b>Program 3 requirement to train employees on employee participation plan</b>			
Trained Employees	\$33	1,475,579	\$9,844,095
Facilities	\$138	7,105	\$195,417
<b>Total</b>		<b>7,105</b>	<b>\$10,039,512</b>
	<b>Grand Total</b>		<b>\$11,080</b>
			<b>\$11,473,158</b>

\*Totals may not sum due to rounding.

*Emergency Backup Power for Perimeter Monitors, Hazard Evaluation Amplifications, and RAGAGEP Gap Analysis* - The final rule will require Program 2 and 3 facilities to include in their RMP a justification for why the facility has not installed emergency backup power for each process without emergency backup power, and justifications for each declined natural hazards recommendation and stationary source siting recommendation. The final rule will also require Program 3 facilities to include in their RMP a justification for each declined PHA recommendation associated with the most recent version of RAGAGEP. EPA assumes the number of justifications for not implementing backup power will equal the number of Program 2 and 3 processes without backup power as of December 31, 2020. EPA assumes each Program 2 and Program 3 facility will, on average, provide two natural hazards justifications and two siting justifications, and each Program 3 facility will additionally average two RAGAGEP justifications. Exhibit 18 presents the costs for the provision.

**Exhibit 18: Estimated Annualized Labor Costs for RMP Justifications (2022 dollars)**

Facility Type	Unit Cost	Facilities	Total Annualized Cost
<b>Emergency Backup Power for Perimeter Monitors Justification for No Backup Power</b>			
Simple	\$9.22	1,494.20	\$13,784
Complex	\$11.46	175.80	\$2,015
<b>Total</b>		<b>1,670</b>	<b>\$15,798</b>
<b>Facility Siting</b>			
Simple	\$9.22	3,795.60	\$35,015
Complex	\$11.46	636.40	\$7,293
<b>Total</b>		<b>4,432</b>	<b>\$42,307</b>
<b>Natural Hazards</b>			
Simple	\$9.22	3,795.60	\$35,014
Complex	\$11.46	636.40	\$7,293

<b>Facility Type</b>	<b>Unit Cost</b>	<b>Facilities</b>	<b>Total Annualized Cost</b>
<b>Total</b>		<b>4,432</b>	<b>\$42,307</b>
<b>RAGAGEP</b>			
Simple	\$9.22	2231.2	\$20,582
Complex	\$11.46	610.8	\$7,000
<b>Total</b>		<b>2,842</b>	<b>\$27,582</b>
<b>Grand Total</b>		<b>13,376</b>	<b>\$127,995</b>

*Community Notification of RMP Accidents* - The RMP rule previously required only responding Program 2 and 3 facilities to have procedures in place for informing the public and the appropriate Federal, State, and local emergency response agencies about accidental releases. The final rule requires both responding and non-responding Program 2 and 3 facilities to ensure a community notification system is in place. This analysis assumes that facilities are coordinating annually with LEPCs to ensure a community notification system is used to communicate information about RMP-reportable accidents. Exhibit 19 presents the cost for this provision.

**Exhibit 19: Estimated Annualized Labor Costs for Coordinating Community Notification  
(2022 dollars)**

<b>Facility Type</b>	<b>Unit Cost</b>	<b>Facilities</b>	<b>Total Annualized Cost</b>
<b>Facility Burden</b>			
Simple P2/3	\$221	9,288	\$2,056,326
Complex P2/3	\$550	1,792	\$985,751
<b>Total</b>		<b>11,080</b>	<b>\$3,042,077</b>
<b>LEPC Burden</b>			
Simple P2/3	\$73	9,288	\$671,500
Complex P2/3	\$145	1,792	\$259,114
<b>Total</b>		<b>11,080</b>	<b>\$930,614</b>
<b>Facility + LEPC BURDEN</b>			
<b>Grand Total</b>			<b>\$3,972,691</b>

*Information Availability to the Public* - The RMP rule previously did not require facilities to conduct information availability activities. The final rule requires all facilities, including those with Program 1 processes, to make information related to RMP compliance available upon request in a manner that is easily accessible to community members living within 6 miles of the facility. The information must include the names and Safety Data Sheets of regulated substances used at the facility, the facility's accident history, emergency response program information, and LEPC contact information. The assumption is that each facility receives 1 request per year from a community member residing within 6 miles of the facility. The breakout of costs related to Information Availability is in Exhibit 20. EPA does not consider the costs to the public in requesting this information but expects these costs to be minimal.

**Exhibit 20: Estimated Annualized Labor Costs for Information Availability Provision (2022 dollars)**

<b>Facility Type</b>	<b>Unit Cost</b>	<b>Facilities</b>	<b>Total Annualized Cost</b>
Simple	\$185	10,082	\$1,865,424
Small Complex	\$473	1,050	\$496,941
Large Complex	\$6,727	608	\$4,089,892
<b>Total</b>		<b>11,740</b>	<b>\$6,452,257</b>