

New Final RMP Rule Insights

Webinar · April 10, 2024

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Overview: RMP Elements that Changed

- Introduction
- Overview of the Final Rule Revision
- 6 Key Elements
 - PHAs
 - Incident Investigation
 - Compliance Audits
 - Employee Participation
 - Emergency Planning
 - Information Availability
- Timing
- Conclusions
- Q&A



PHA: Natural Hazards – Requirements

- Due to the EPA's concerns with climate change, they have required that PHAs must explicitly address external events such as natural hazards, including those caused by climate change or other triggering events that could lead to or exacerbate an accidental release.
- Not required to conduct research or interpret climate change research on their own.
- No specific any safeguards or physical changes are required if PHAs reveal that a facility is vulnerable to natural events.



PHA: Natural Hazards – Analysis/Insights

- Demands to document consideration of natural hazards in hazards analysis studies, possibility of needing improvements or modifications in operations to justify preparedness for such events.
- Did not specify which natural events are relevant for any facility, region, or the nation nor any criteria for selecting them - this is left to each facility to determine.
- Most likely approach - use of thorough checklists during PHAs, paying close attention to your emergency response plan.
- Note that EPA frames this as “amplification” of a requirement that the agency already believes is in the RMP rule.

GAO Analysis: RMP Sites & Natural Hazards



United States Government Accountability Office
Report to Congressional Requesters

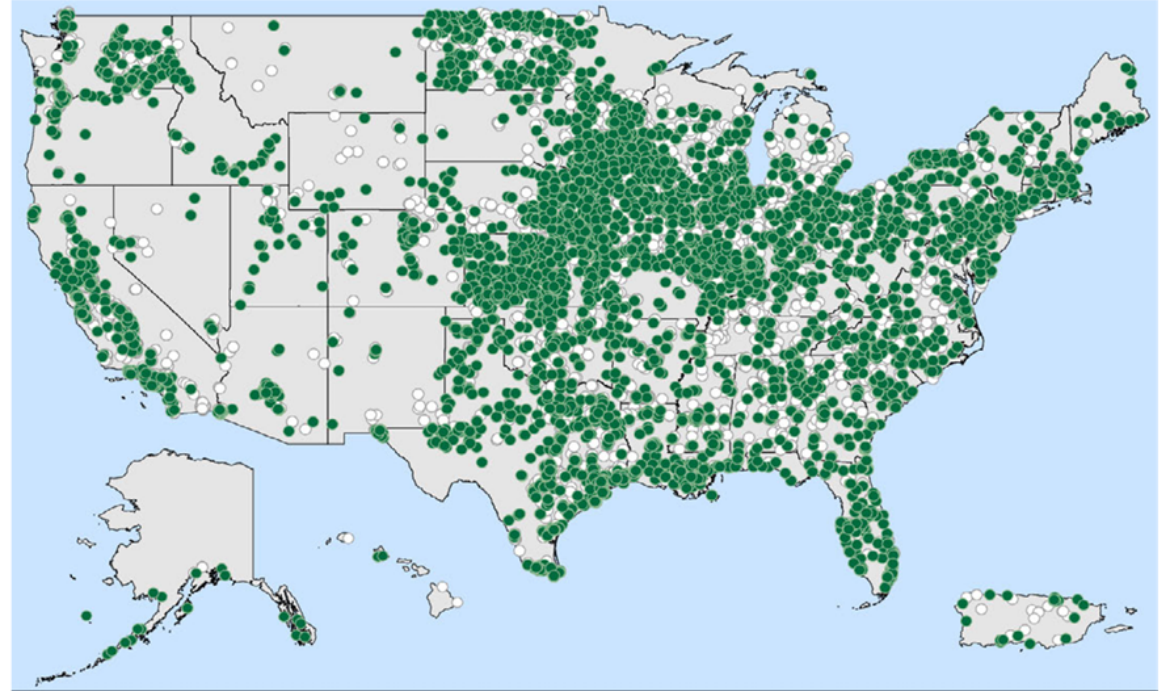
February 2022

CHEMICAL ACCIDENT PREVENTION

EPA Should Ensure
Regulated Facilities
Consider Risks from
Climate Change

GAO-22-104494

RMP Facilities Located in Areas That May Be Impacted by Flooding, Storm Surge, Wildfire, or Sea Level Rise



Risk Management Plan (RMP) facilities that GAO analyzed (10,420)

- Located in an area with one or more of these natural hazards (3,219)
- Located in an area without one or more of these natural hazards or where hazards are unknown (7,201)

Sources: GAO analysis of Environmental Protection Agency, Federal Emergency Management Agency, National Oceanic and Atmospheric Administration, and U.S. Forest Service data; U.S. Census Bureau (map). | GAO-22-104494

Notes: This map does not include one RMP facility in each of Guam and the U.S. Virgin Islands, Storm surge data are not available for the West Coast and Pacific islands other than Hawaii, and sea level rise data are not available for Alaska.

<https://www.gao.gov/assets/gao-22-104494.pdf>

PHA: Loss of Power – Requirements

- Analysis of loss of power must be explicitly included in PHAs.
- PHAs explicitly address standby or emergency power systems.
- Must evaluate whether power loss represents a process safety hazard to their processes and, if so, implement appropriate controls to prevent or reduce that hazard.
- Air pollution control or monitoring equipment associated with prevention and detection of accidental releases must have standby or backup power.

PHA: Loss of Power – Analysis/Insights

- **No explicit requirement to provide emergency power systems.**
- Most likely approach - use of checklists during PHAs.
- You should review the reliability of existing emergency power supplies.



PHA: STAA – Requirements

- STAA = Inherently Safer Technologies
- Criteria for performing a STAA:
 - **NAICS codes 324** (petroleum and coal products manufacturing), and **325** (chemical manufacturing) with Program 3 processes that are located **within 1 mile of another** RMP-regulated facility with these same processes (classified in NAICS 324 and 325).
 - Refineries (NAICS 324) with **hydrofluoric acid (HF) alkylation units** (currently approx 45 refineries) consider safer alternatives to liquid HF acid alkylation, regardless of proximity to another NAICS 324- or 325-regulated facility.
 - Facilities in NAICS codes 324 and 325 that have had **one accident that meets the RMP accident history reporting requirements** since the most recent PHA.

PHA: STAA – Requirements

- STAA analysis required as part of the PHA.
- Must document the feasibility of inherent safety measures based on more than cost alone.
- STAA team must include (with documentation) one member who works in the process and has expertise in the process being evaluated.
- STAA must include a more comprehensive practicability assessment, including documenting the practicability of publicly available safer alternatives.
- Define “practicability” as the capability of IST/ISD measures being successfully accomplished within a reasonable time, accounting for technological, environmental, legal, social, and economic factors, with cost being last.

PHA: STAA – Requirements

- The additional safety measures are to be implemented in the following hierarchical manner:
 - inherently safer technology or design, then
 - passive measures, then
 - active measures and procedural measures.

- Must implement at least one passive measure, or an IST/ISD measure, or a combination of active and procedural measures equivalent to or greater than the risk reduction of a passive measure.



PHA: STAA – Analysis/Insights

- The difficulty in documenting sufficient evidence to demonstrate that implementing the passive and active measures is not practicable and the reasons for not implementing.
- A claim of impracticability shall not be based solely on evidence of reduced profits or increased costs.
- Shall document any methods used to determine practicability.
- In addition, it is not clear whether additional passive, active, and procedural measures are required beyond what currently exists. Can existing measures be credited for this requirement?

PHA: STAA – Analysis/Insights

- Learning to conduct and justify decisions for Safer Technology Alternatives Analysis (STAA) if applicable.
- Will require training, development of a methodology, and efforts to review PHA studies for additional ISD/IST safeguards.
- Typical PHA teams do not have the expertise to evaluate technological, environmental, legal, social, and economic factors.

PHA: STAA – Analysis/Insights

- Environmental factors would include consideration of potential transferred risks for new risk reduction measures.
- EPA is not requiring owners or operators to implement identified IST/ISD measures, but this is the first time that any federal, state, or local process safety regulator has required any sort risk reduction measure be implemented as a result of a hazard evaluation (hierarchy of controls).
- Documentation is critical
 - If future incident occurs, anticipate close scrutiny of documentation (by agencies and plaintiffs' lawyers) regarding alternatives and feasibility.
 - What you say and how you say it has the potential for significant legal consequences.

PHA: Analysis of RAGAGEPs – Requirements

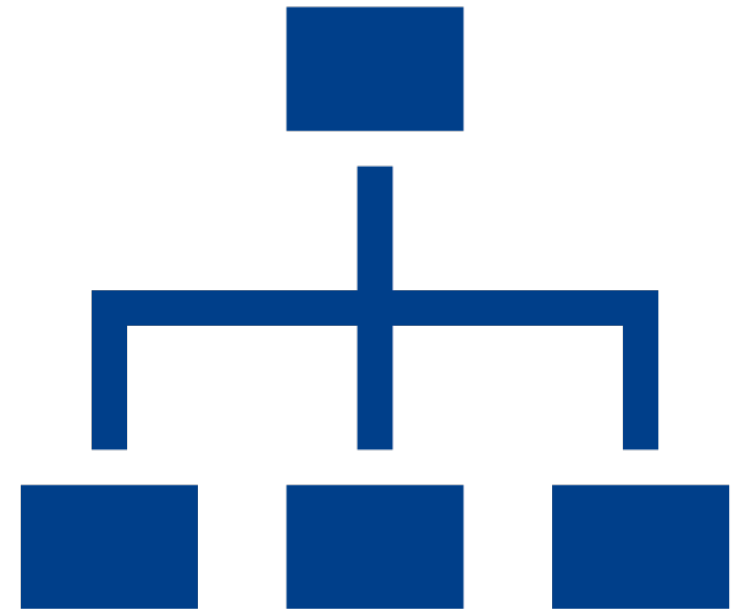
- Document the differences between the RAGAGEPs used to design and construct the equipment and the current editions of those RAGAGEPs.
- Make RAGAGEP gap analysis available to the public (part of Information Availability subpart of Rule).

PHA: Analysis of RAGAGEPs – Analysis/Insights

- This is part of the information availability provisions of the new RMP Rule.
- The PHA element itself does not specify any mandatory PHA analysis of the RAGAGEPs – but without such an analysis how can the RAGAGEP gaps be identified?
- Could be a separate analysis from PHA, or during compilation of PSI before PHA.
- Typical PHA teams do not have the detailed design expertise to evaluate application of RAGAGEPs.

Incident Investigation – Requirements

- Incident investigation reports must include a root cause analysis for RMP reportable incidents or near misses.
- The investigations must include the initiating event, direct and indirect contributing factors, and the root causes.
- The RCA must be conducted using a recognized investigation method.
- Requires that investigations be completed within 12 months, unless extended by the implementing agency in writing.



Incident Investigation – Analysis/Insights

- New RMP Rule does not specify RCA methods that are approved nor does it describe the characteristics of the method to be used—owner/operator decision.
- RCA is a common component of EHS related incident investigations.
- New RMP Rule distinguishes between root causes and contributing factors.
- EPA declined to provide a definition of “near miss” as part of the new RMP Rule.
- Note that definition of “root cause” now incorporates the concept of “correctable failure(s) in management systems, and if applicable, process design.”
 - Again, documentation and wording will be important. Agencies and plaintiff’s lawyers might try to use such language as legal admissions that identified deficiencies were capable of being fixed.

Compliance Audits – Requirements

- EPA adopted a requirement for third party RMP audits.
- In final RMP Rule third party audits required if:
 - Facility has experienced an event that qualifies for inclusion in RMP 5-year accident history since the last audit, or
 - The RMP implementing agency demands a third-party audit because of concerns about the competency or impartiality of a previous third-party audit.

Compliance Audits – Requirements

- Final RMP Rule requires third party auditors to satisfy two areas: *competency and impartiality*.
- Third party auditor competency:
 - Knowledgeable with the requirements of the audit element of the Final RMP Rule.
 - Experienced with the stationary source type and processes being audited.
 - Knowledgeable of applicable RAGAGEP practices.
 - **Trained AND/OR certified in proper auditing techniques.**

Compliance Audits – Requirements

- Third party auditor independence & impartiality:
 - No financial benefit from the outcome of the audit, apart from payment for the auditing services.
 - Retired employees OK if only continuing financial attachment to the owner/operator are employer-financed or managed retirement and/or health plans.
 - The audit team leader must be independent, but the remainder of the audit team can consist of either third party audit firm employees or personnel from the facility being audited.
 - All third-party audit personnel cannot accept future employment with owner/operator for a period of at least two years following submission of the final audit report.
 - Employment does not include performing or participating in third-party audits pursuant to the requirements of the Final RMP Rule.
 - All third-party personnel must sign and date a conflict-of-interest statement documenting that they meet the independence criteria.

Compliance Audits – Requirements

- Auditors shall have written policies and procedures to ensure that all personnel comply with the competency, independence, and impartiality requirements.



Compliance Audits – Requirements

- The responsibilities of third-party auditors include:
 - Manage the audit, i.e., initiation, design, implementation, and reporting.
 - Determine appropriate roles and responsibilities for the audit team members based on the qualifications of each team member.
 - Prepare the audit report.
 - **Where there is a team, *document the full audit team's views in the final audit report.***
 - Certify the final audit report and its contents as meeting the requirements of the Rule.
 - Provide a copy of the audit report to the owner or operator.

Compliance Audits – Requirements

- The owner/operator is required to:
 - Certify the report of their response to the audit findings (i.e., their corrective action plan, the audit report itself, the corrective actions, and schedule for the prompt correction).
 - **Immediately submit audit reports to the Board of Directors (or comparable body or individual within an owner/operator organization), whether or not they were conducted by third parties.**
 - Generate corrective action plans in response to RMP audits within 90 days of the finalization of the audit report.
 - Retain the past two RMP compliance audit reports (whether or not they were conducted by third parties) and records of audit follow-up and corrections.

Compliance Audits – Analysis/Insights

- Documentation of differing opinions among auditors, especially if previously done internally.
- No set criteria for third party auditor training and/or certification. CPSA and BEAC certifications are available and should be acceptable. Otherwise, a detailed resume that shows audit training and experience might suffice.
- No provisions in final RMP Rule that restrict prior consulting work from impartiality requirements (draft Rule had a 2-year prior window).
- Auditors now required to certify audit reports.

Employee Participation – Requirements

- Same consultation language as original RMP Rule (and the PSM Std).
- Added provisions:
 - Employees can offer suggestions and concerns about why a recommendation should be adopted or declined or whether other alternatives should be taken.
 - 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.
 - **Emergency shutdown authority for operators.**
 - **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.**

Employee Participation – Analysis/Insights

- Explicit general stop work authority not included – provision only applies to recommendations for process shutdown.
- Emergency shutdown authority for operators is now explicit – was only addressed as part of SOPs previously.
- No criteria for making suggestions about why a recommendation should be adopted or declined or whether other alternatives should be taken. Email suffice? Suggestion box?

Emergency Response – Requirements

- Must develop and implement procedures for informing the public and the appropriate federal, state, and local emergency response agencies about accidental releases of RMP-regulated substances.
- Must provide necessary offsite entities with release information in order to ensure that the public and the appropriate federal, state, and local emergency response agencies have information to help with their response.

Emergency Response – Requirements

- Drills & Exercises:
 - Conduct, at a minimum, field exercises by March 15, 2027, and at least once every 10 years, unless local responders indicate that frequency is infeasible.
- Evaluation reports from these exercises (i.e., the critiques) must be produced within 90 days along with the documentation of recommendations to improve the emergency response program at the facility and the schedule.



Emergency Response – Analysis/Insights

- Final RMP Rule does not alter choice to be a responding or non-responding facility.
- The emergency response requirements of RMP are separate from the RMP Prevention Program, unlike PSM. Therefore, several provisions from 2019 Reconsideration RMP Rule remain in place:
 - Annual coordination between RMP covered facilities and local responder - nature and method of not specified (i.e., e-mail correspondence might suffice).
 - Annual exercises of the emergency response notification system be conducted.
 - Table-top exercises required before 12/31/26 and every 3 years thereafter.
- 10-year interval between field exercises (i.e., roll-out drills) is lengthy.

Emergency Response – Analysis/Insights

- Important unaddressed questions/issues:
 - What happens if coordination with local responders is not productive?
 - If the coordination fails despite good faith efforts by the facility could there be an inference that the burden for providing the response lies with the owner/operator?

Information Availability – Requirements

- EPA is proposing to allow the public to request specific chemical hazard information if they reside, work, or spend significant time within 6 miles of a facility.
- List of information to be provided upon request includes:
 - Regulated substances in processes
 - SDSs
 - 5-Year accident history
 - Emergency response status
 - Facility and LEPC contact information
 - Information on notification system(s)
 - ER exercise information

Information Availability – Requirements

- Requires that declined recommendations and justifications from natural hazard, power loss, siting hazard evaluations, and RAGAGEP gap analysis, as well as inherently safer technology or design measures implemented since the last PHA, if any, and the technology category (substitution, minimization, simplification and/or moderation).

Information Availability – Requirements

- 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.
- Shall provide ongoing notification on a company website, social media platforms, or through other publicly accessible means that the chemical hazard information is available to the public within 6 miles .
- Facilities are required to provide the requested information within 45 days.

Information Availability – Analysis/Insights

- In Final RMP Rule EPA continues to include provisions for increased public access and more online access for RMP related information. Concerns about security of the RMP facilities?
- The increased access to information and demands to requirements to provide data on demand may be time consuming
- Need for vetting and justification of requests. How to confirm 6-mile zone?
- Potential for legal actions regarding declines/rejected recommendations and other issues.

Timing

- The effective date of the Final RMP Rule is May 11, 2024.
- Deadlines for certain activities and requirements contained in the Final RMP Rule are measure from that date as follows:
 - New STAA, incident investigation root cause analysis, third-party compliance audit, employee participation, emergency response public notification and exercise evaluation reports, and information availability provisions, unless otherwise stated, 3 years after the effective date of the final rule, i.e., **May 11, 2027**.
 - 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 May 11, 2024.
 - Allow regulated RMP facilities 1 additional year, i.e., **May 11, 2028**, to update and resubmit risk management plans to reflect new and revised data elements.

Final Conclusions

- For the first time that the RMP Rule – Prevention Program and the PSM Std will diverge.
- Final RMP Rule contains the first use of worst case/alternative release scenario (WCS/ARS) results other than simple collection and tabulation of the data - WCS results have been used to determine the 1-mile distance criteria for performing an STAA. Possible future uses of WCS and ARS results?
- Final RMP Rule, for the first time in any U.S. federal, state, or local process safety regulation, has included mandatory risk reduction measures as part of the STAA requirements (part of the PHA element). **This is a major departure from previous process safety rulemaking.**

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- Join us on:

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2:30 PM EDT



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