

RMP Safer Communities by Chemical Accident Prevention

A Summary of Rule Changes

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Agenda

- Background on RMP Rule
- Why was the RMP Rule Revised?
- What Revisions were made?
- What's Next?





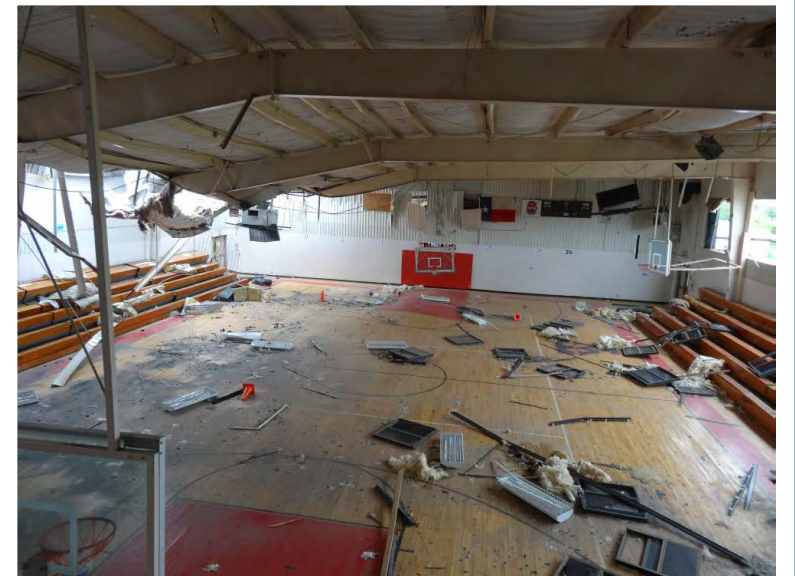
What is the RMP Rule?

- ❑ The Risk Management Program (RMP) Rule implements Section 112(r) of the 1990 Clean Air Act Amendments at 40 CFR Part 68.
- ❑ The rule was developed to prevent chemical accidents at facilities that use extremely hazardous substances.
- ❑ These facilities must develop a Risk Management Plan.
- ❑ The plan identifies potential effects of chemical accidents, steps to prevent an accident, emergency response procedures.
- ❑ Plan must be reviewed and resubmitted to EPA every 5 years.
- ❑ Facilities are in Program Level 1, 2, or 3 based on industry and risk.
- ❑ Program Level 3 has the most requirements.



How did we get Here?

- The original RMP rule was finalized in 1996 and required facilities holding more than a threshold quantity of a regulated substance to comply.
- The origins of the RMP rule were rooted in the 1984 Union Carbide incident in Bhopal India where a methyl isocyanate leak killed more than 3,800 and affected many more.
- In 2013 an explosion and fire at the West Fertilizer Company in West, TX killed 15 and injured more than 260 people



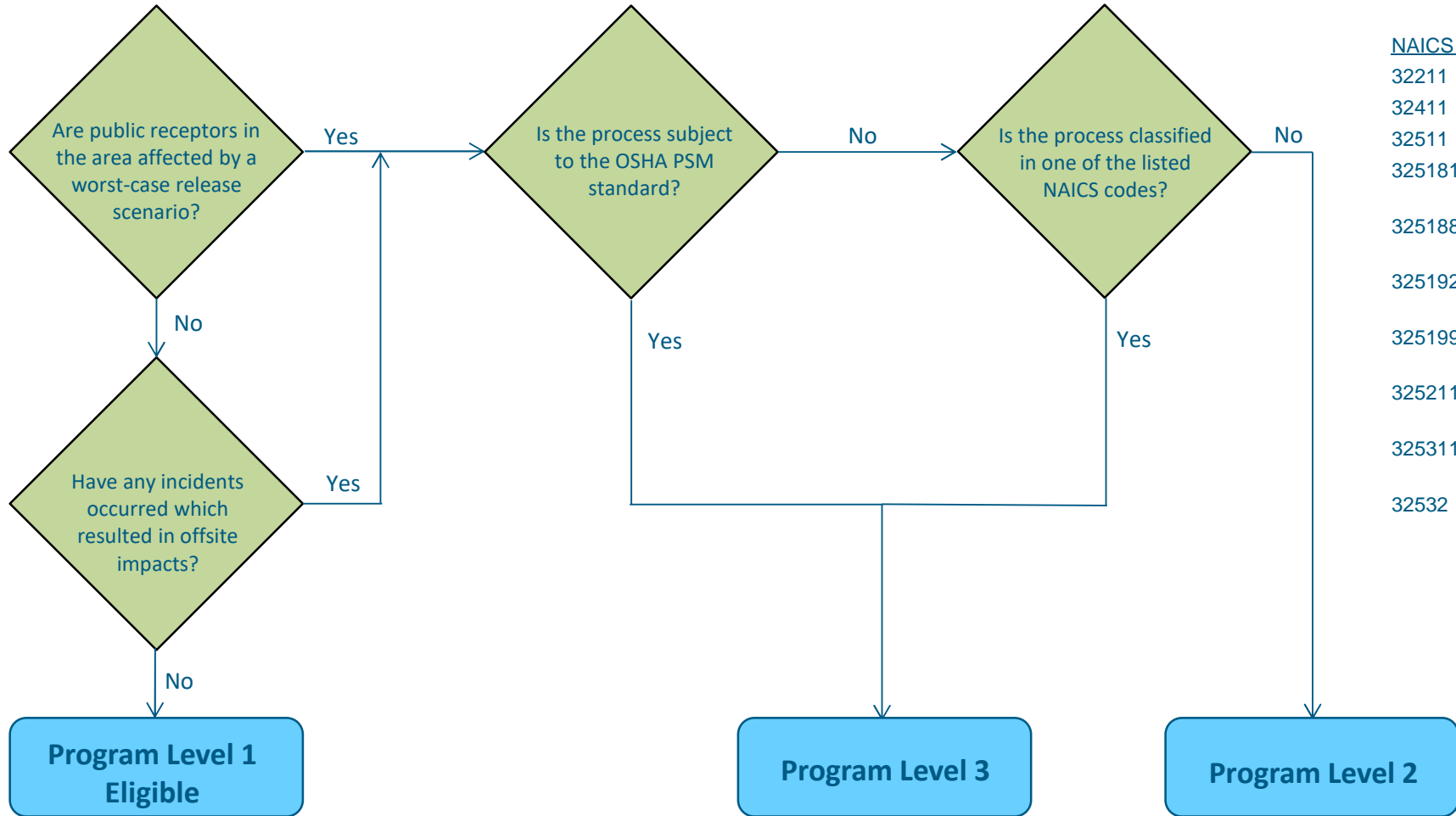


How did we get Here?

- ❑ Most of the substantial rule amendments originally occurred in 2017.
- ❑ EPA then rolled back many of those changes in 2019 under a subsequent administration.
- ❑ EPA proposed additional changes on August 18, 2022 to bring back many of the SCCAP provisions from 2017.
- ❑ Final revised rule was published in the Federal Register on March 11, 2024.
- ❑ The effective date of the final rule is May 10, 2024.



RMP Program Level Applicability



NAICS Code

- 32211
- 32411
- 32511
- 325181
- 325188
- 325192
- 325199
- 325211
- 325311
- 32532

Industry

- Pulp Mills
- Petroleum Refineries
- Petrochemical Manufacturing
- Alkalies and Chlorine Manufacturing
- All Other Basic Inorganic Chemical Manufacturing
- Cyclic Crude and Intermediate Manufacturing
- All Other Basic Organic Chemical Manufacturing
- Plastic Material and Resin Manufacturing
- Nitrogenous Fertilizer Manufacturing
- Pesticide and Other Agricultural Chemical Manufacturing





RMP Program Level - 1

- Facilities falling under Program Level 1 are those that pose the least risk to surrounding communities and the environment.
 - No RMP-reportable releases from process for the previous five-years.
 - No potential for off-site impacts from process due to accidental releases.
- These facilities typically handle a limited quantity of hazardous substances and have minimal potential for off-site impacts in the event of an accidental release.
- Requirements for Program Level 1 facilities are generally less stringent compared to higher program levels.
- Emergency response procedures coordinated with local emergency planning and response organizations.





RMP Program Level - 2

- ❑ Facilities categorized under Program Level 2 handle larger quantities of hazardous substances or substances with higher levels of risk.
- ❑ They may have a moderate potential for off-site impacts in the event of an accidental release.
- ❑ Program Level 2 facilities are subject to more comprehensive risk management requirements and are required to develop and implement risk management plans.
- ❑ Processes not subject to Program Level 3 and not eligible for Program Level 1.





RMP Program Level - 3

- ❑ Facilities classified under Program Level 3 handle the largest quantities of hazardous substances or substances with the highest levels of risk.
- ❑ They typically have a significant potential for off-site impacts in the event of an accidental release.
- ❑ Program Level 3 facilities are subject to the most stringent regulatory requirements and are required to develop and implement comprehensive risk management plans that include detailed Process Hazard Analyses (PHAs), emergency response plans, and other risk mitigation measures.
- ❑ Processes not meeting Program Level 1 and subject to Process Safety Management (PSM) requirements.





What was Revised?

- EPA has classified the changes into four categories:
 1. Prevention program updates
 2. Revisions to emergency response requirements
 3. Enhancing information availability
 4. Other areas of technical clarification





What was not Revised?

- ❑ EPA did not change the list of RMP regulated chemicals or the threshold quantities triggering RMP applicability in 40 CFR 68.130.
- ❑ EPA did not change the Hazard Assessment and Off-site Consequence Analysis requirements in 40 CFR 68.20 – 68.42:
 - Evaluation of worst-case and alternative release scenarios
 - Distances to toxic endpoints
 - Impacted population and sensitive off-site receptors
 - Five-year accident history



Important Terms/Definitions

- RMP reportable accidental releases from covered processes resulting in:

On site	Offsite
Deaths	Deaths
Injuries	Injuries
Significant property damage	Evacuations
	Sheltering in place
	Property damage
	Environmental damage





Prevention Program - Safer Technologies and Alternatives Analysis (STAA)

- The EPA is finalizing requirements for Program Level 3 regulated processes, focusing on petroleum and coal products manufacturing (NAICS 324) and chemical manufacturing (NAICS 325). These regulations mandate facilities to assess and document the feasibility of adopting safer technologies and alternatives as part of their Process Hazard Analysis (PHA).
- Specifically, facilities within NAICS 324 utilizing hydrofluoric acid (HF) in alkylation units are required to explore safer alternatives to HF alkylation.





Prevention Program - Safer Technologies and Alternatives Analysis (STAA)

- Additionally, facilities must prioritize inherently safer technology (IST) or inherently safer design (ISD), followed by passive, active, and procedural measures. A more comprehensive practicability assessment is mandated for:
 - Co-located facilities (within 1 mile) of another Program Level 3 NAICS 324 or 325 facility,
 - Those with refinery HF alkylation processes, or
 - Facilities with a RMP-reportable accident since the most recent PHA.

- These facilities must implement at least one practicable passive measure or a similarly viable active or procedural measure post-STAA evaluation.





Prevention Program – Hazard Evaluation

- The EPA included regulatory text to underscore the importance of addressing natural hazards and power loss within Program Level 2 hazard reviews and Program Level 3 Process Hazard Analyses (PHA). This emphasis ensures that these critical hazards are adequately considered in risk assessments.
- The finalized regulations highlight the significance of evaluating facility siting not only within PHAs but also in hazard reviews. This broader approach ensures that facility siting considerations are integrated into both evaluations, enhancing overall hazard identification and risk management practices.
- Risk Management Plan submittals must include justifications for any declined recommendations, selected from the following options:
 - The analysis upon which the recommendation is based contains material factual errors.
 - The recommendation is not necessary to protect the health and safety of the employer's own employees, or the employees of contractors.
 - An alternative measure would provide a sufficient level of protection.
 - The recommendation is infeasible.



Prevention Program – Natural Hazards

- Regulations now explicitly incorporate natural hazards, including those related to climate change, into the hazards evaluated during Program Level 2 hazard reviews and Program Level 3 Process Hazard Analyses (PHAs).
- The finalized definition of natural hazards encompasses naturally occurring events that have the potential for adverse impacts, encompassing meteorological hazards stemming from weather and climatic cycles, as well as geological hazards.
- Examples of such hazards include, but are not limited to the following:

Avalanche	Heat wave	Strong wind
Coastal flooding	Hurricane	Tornado
Cold wave	Ice storm	Tsunami
Drought	Landslide	Volcanic activity
Earthquake	Lightning	Wildfire
Hail	Riverine flooding	Winter weather






Prevention Program – Power Loss

- Regulations enhance the consideration of loss of power as a hazard in Program Level 2 hazard reviews and Program Level 3 Process Hazard Analyses (PHAs). This is accomplished by incorporating language emphasizing that hazard evaluations must address standby or emergency power systems, as outlined in 40 CFR 68.50(a)(3) and 68.67(c)(3).
- Additionally, the EPA is finalizing a requirement for monitoring equipment associated with the prevention and detection of accidental releases from RMP-regulated processes to have standby or backup power.
 - Facilities have 3 years to comply with the backup power requirements (May 10, 2027).





Prevention Program – Stationary Source Siting

- The new regulations to underscore the significance of conducting thorough siting evaluations that consider hazards associated with the location of processes, equipment, buildings, and nearby facilities, as well as their potential impacts on the surrounding community.
- This emphasis is achieved by amending the language for Program Level 2 hazard reviews and Program Level 3 Process Hazard Analyses (PHAs) to define stationary source siting evaluations as inclusive of the placement of processes, equipment, buildings, and hazards posed by proximate facilities. Additionally, the evaluation accounts for the consequences of accidental releases in proximity to the public and public receptors.





Prevention Program – Hazard Evaluation Recommendation Information Availability

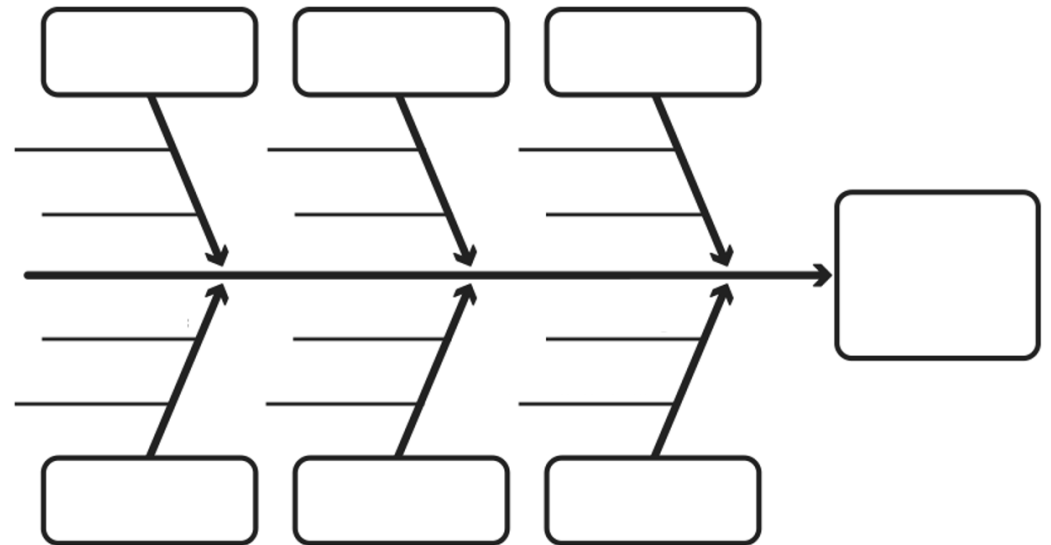
- U.S.EPA adopted the requirement for facilities to include in their risk management plans, recommendations resulting from hazard evaluations of natural hazards, loss of power, and facility siting, for each process.

- Facilities must also include justifications for any recommendations they choose to decline. These justifications must be selected from the following options:
 - The analysis upon which the recommendation is based contains material factual errors.
 - The recommendation is not necessary to protect the health and safety of the employer's own employees, or the employees of contractors.
 - An alternative measure would provide a sufficient level of protection.
 - The recommendation is infeasible.



Prevention Program – Root Cause Analysis

- ❑ Facilities with Program Levels 2 and 3 processes will be required to conduct a root cause analysis as part of an incident investigation for any RMP-reportable accident. This provision is estimated to apply to an average of 100 facilities per year.
- ❑ The root cause analysis must include specific elements and utilize a recognized investigation method. Investigations must be completed within 12 months.
- ❑ The EPA is modifying the definition of "root cause" to include a requirement that the identified root cause must pinpoint correctable failures in management systems, and if applicable, process design.



Prevention Program – Third Party Compliance Audits

- ❑ The EPA will require independent third-party compliance audits for Program Level 2 and Program Level 3 processes under more limited circumstances than the proposal.
- ❑ Specifically, the requirement applies following one RMP-reportable release in a 5-year period. The subsequent 3-year compliance audit following the release must be conducted by a third-party auditor.
- ❑ Third-party auditors must satisfy independence and competency requirements.
- ❑ Third-party audits may also be required by the RMP implementing agency under certain conditions.





Prevention Program – Third Party Compliance Audits

- ❑ Facilities are required to prepare and submit a third-party audit findings response report within 90 days of receiving the third-party audit report.
- ❑ Facilities are required to develop a schedule to address deficiencies identified in the audit findings response report and document the action taken to address each deficiency, along with the completion date.
- ❑ Upon completion of the audit findings response report and the schedule to address deficiencies, each must be immediately provided to the owners/operators Board of Directors audit committee.
- ❑ Facilities must list in their risk management plans any third-party audit findings they choose to decline.



Program Level 2 & 3 Prevention Program – Employee Participation

- Process Level 2 facilities must develop an employee participation plan, including annual notice of plan availability and training as needed.
- Existing Process Level 3 plans must now include consultation with employees knowledgeable in the process and their representatives on addressing, correcting, documenting, and implementing recommendations from PHAs, incident investigations, and compliance audits.
- Existing Process Level 3 plans must provide the following authorities to employees knowledgeable in the process and their representatives:
 - Recommend to the operator in charge of a unit a partial or complete shutdown of an operation/process based on the potential for catastrophic releases.
 - Allow a qualified operator in charge of a unit to partially or completely shutdown an operation/process based on the potential for catastrophic releases.

Program Level 2 & 3 Prevention Program – Employee Participation

- ❑ Catastrophic release means a major uncontrolled emission, fire, or explosion, involving one or more regulated substances that presents imminent and substantial endangerment to public health and the environment.
- ❑ Plans must include a process for employees and their representatives to report hazards that could lead to catastrophic releases, unreported RMP-reportable accidents, or other non-compliance issues to owners/operators and EPA either anonymously or with attribution.



Emergency Response – Release Detection/Notification

- EPA *did not* finalize the proposed community emergency response plan amplifications, which includes monitors and other methods used to detect releases.
- Facilities and local emergency response agencies should form partnerships to ensure a community notification system is in place to quickly warn the public in threatened areas during a release.
- Existing notification systems like FEMA’s Integrated Public Alert & Warning System (IPAWS) fulfills community notification system requirements.
- RMP facilities are required to provide initial RMP accidental release information to the public and appropriate emergency response agencies.
- Facilities must ensure prompt notification using methods outlined in their emergency response plans, coordinating with local responders and providing timely data and information about the release.



Emergency Response - Exercises



- The EPA *did not* finalize amplifications to community emergency response plans.
- Requirements for facilities with Program Level 2 and Program Level 3 processes:
 - Notification exercises are required annually (existing requirement).
 - The first notification exercise must be completed by December 19, 2024.
 - Tabletop exercises are required at least once every 3 years (existing requirement).
 - The first tabletop exercise must be completed by December 21, 2026.
 - Field exercises are required at least once every 10 years (modified requirement).
 - The first field exercise must be conducted 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.
 - Field exercise frequency can be adjusted if local responders deem it infeasible.
 - Field and tabletop exercise evaluation reports are required within 90 days of each exercise.



Emergency Response – Public Access to Information

- ❑ Members of the public are defined as those individuals living, working, or spending significant time within 6 miles of the facility's fenceline.
- ❑ Members of the public may request the notification procedures the facility will use to inform them of a release.
- ❑ Members of the public may request specific chemical hazard information from the facility.
- ❑ Requested information must be made available in English or in at least two other commonly spoken languages in the community.
- ❑ Requested information must be provided within 45 days.
- ❑ Company website or publicly accessible social media platforms must provide ongoing notification of information availability, including what information may be requested and instructions on how to request the information.





Other Areas

- Process Safety Information
 - EPA is finalizing the requirement to keep process safety information up to date
 - Explicitly applies to Program Level 3 processes.
- Hot Work Permits
 - Added a retention period for hot work permits of three years.
 - Applies to Program Level 3 RMP covered processes.
- Retail Facility Exemption
 - Clarified that records can be on a calendar or fiscal year

Other Areas

- Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)
 - Hazard review and PHA language harmonized to eliminate ambiguity and ensure uniform RAGAGEP requirements.
 - PHAs must incorporate an analysis of the latest RAGAGEP, ensuring identification of any gaps between facility practices and the most current RAGAGEP.
 - Owners/Operators must explain in their risk management plans why PHA recommendations related to adopting practices from the latest version of RAGAGEP have not been implemented.





Compliance Dates

- ❑ May 10, 2024:
 - Evaluate natural hazards, loss of power, facility siting, and RAGAGEP in Program Level 2 hazard reviews and Program Level 3 PHAs.
 - Retain hot work permits for 3 years (applies to Program Level 3 covered processes).
- ❑ December 19, 2024:
 - Complete first annual emergency response notification exercise.
- ❑ December 21, 2026:
 - Complete first triennial (every third year) emergency response tabletop exercise.
- ❑ March 15, 2027:
 - Complete first emergency response field exercise (or within 10 years of a field exercise conducted between 3/15/2017 and 8/31/2022).





Compliance Dates

- May 10, 2027:
 - Must have standby or backup power for monitoring or detection of accidental releases,
 - Third-party compliance audits,
 - Incident investigation root cause analysis,
 - Safer Technologies and Alternatives Analysis (STAA),
 - Employee participation,
 - Emergency response public notification, and
 - Information availability provisions.
- May 10, 2028:
 - Update and resubmit risk management plans to reflect new and revised data elements.
- July 30, 2024 – Federal appellate court granted a 120 day stay on lawsuits to allow EPA to reconsider it.



Questions or Comments?

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