

Maneuvering the Technical Minefield of the Amplified RMP Rule

September 25, 2024

Scott Kindy



trinityconsultants.com

Meet the Expert – Scott Kindy



Scott serves as a Managing Consultant for Trinity Consultants, providing PSM & RMP applicability determination, compliance auditing, and program implementation and improvement support to our clients.

He has over 15 years of Risk Management Plan and Process Safety Management experience and has a B.S. in Biology from West Texas A&M University.

Trinity Consultants, a leading global environmental consulting firm, provides services and solutions in the natural environment, built environment, and life sciences.



- ▶ Founded in 1974, Trinity has a rich heritage of technical expertise, industry experience, and a breadth of capabilities to help clients achieve their business goals.

Service Areas

► Environmental Consulting



► Air Quality

- Air quality permitting and compliance support with federal and state/local regulatory requirements.



► Chemical Compliance

- Compliance support for chemical-related compliance and reporting requirements.



► Water Quality

- Water quality permitting, compliance, and sampling.



► Waste Management

- Provides regulatory waste management support for industrial facilities.



► EHS Management

- Trinity's EHS Performance & Risk Management team assists in addressing EHS challenges from various perspectives - strategic planning, program evaluation, and systems development.

Service Areas

► Environmental Consulting



► ESG and Sustainability

- Comprehensive ESG and sustainability program support for companies across many industries.



► Process Safety

- Help organizations effectively manage the risks associated with the handling and processing of highly hazardous chemicals - protecting their workforce, the surrounding community, and the environment.



► Health and Safety

- Support with OSHA, EPA, and local/state agencies regulations that protect the health and safety of workers and surrounding communities.



► Digital Solutions

- Leveraging expertise in regulations, information technology, and industry practices, we provide technology solutions that solve industry's challenging EHS data management needs.

Trinity Consultants

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RMP Safer Communities by Chemical Accident Prevention (SCCAP) Rule

Background

- ▶ 1994 List Rule
- ▶ 1996 RMP Rule
- ▶ 2017 Amendments Rule
 - Prompted by E.O. 13650, “Improving Chemical Facility Safety and Security”
 - Addressed prevention program elements
 - ◆ Safer technology and alternatives analysis (“STAA”);
 - ◆ Incident investigation root cause analysis; and
 - ◆ Third-party compliance audits
 - Emergency response coordination with local responders (including emergency response exercises), and
 - Availability of information to the public

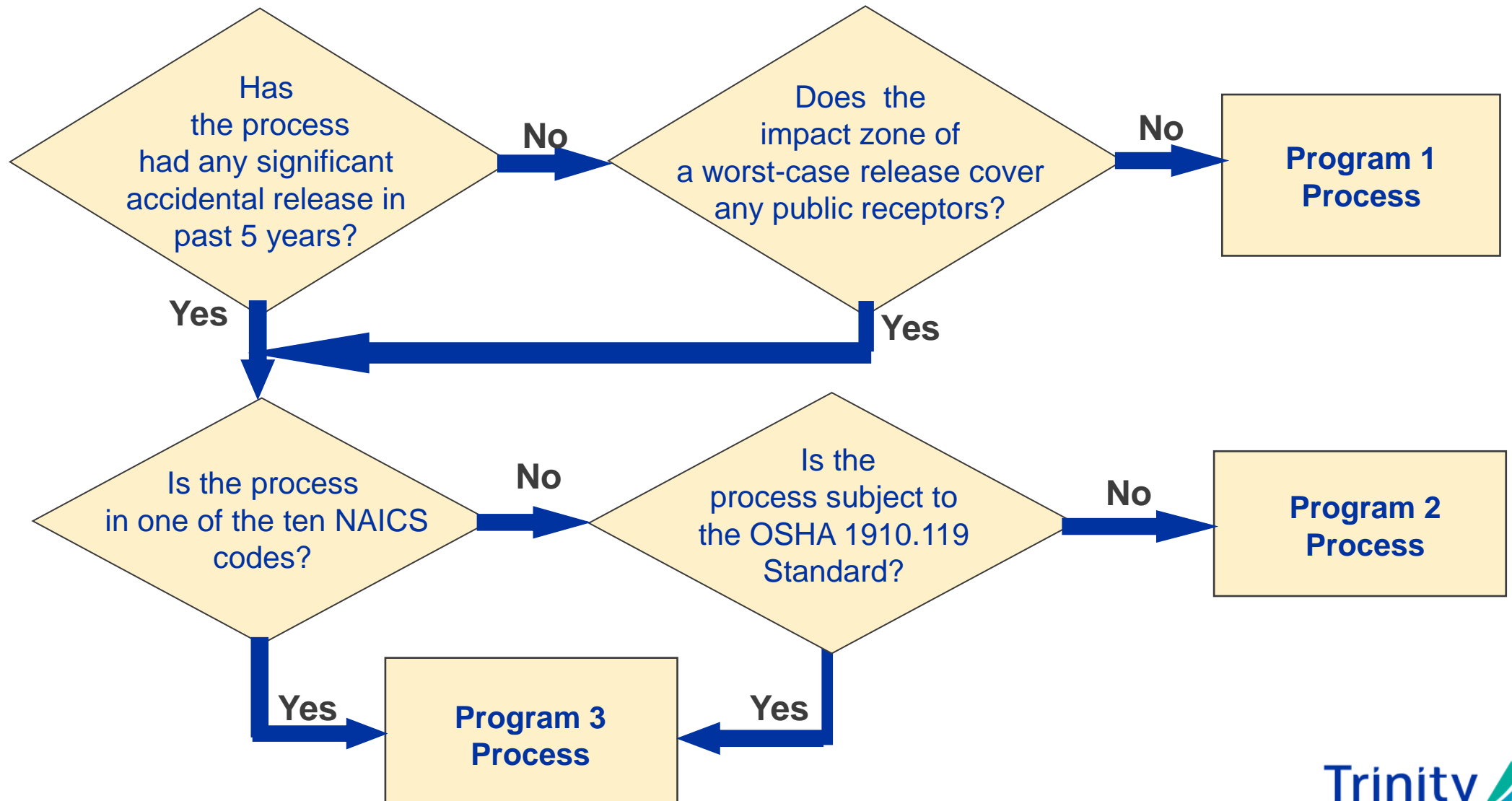
Background

- ▶ 2019 Reconsideration Rule
 - Rescinded or modified certain provisions of the 2017 rule
- ▶ January 20, 2021: E.O. 13990, “Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.”
 - Directed Federal agencies to review existing regulations and take action to prioritize:
 - ◆ Bolstering resilience to the impacts of climate change
 - ◆ Prioritizing environmental justice (EJ)
 - ◆ Limit exposure to dangerous chemicals and pesticides
- ▶ August 31, 2022: Proposed rule, known as “Safer Communities by Chemical Accident Prevention Rule (SCCAP)”
- ▶ March 11, 2024: Finalized SCCAP rule published with a May 10, 2024 effective date

2024 RMP SCCAP Rule

- ▶ Prevention Program (Subpart C and D)
 - Hazard Review (HR) and Process Hazard Analysis (PHA)
 - ◆ Natural Hazards, Power Loss, and Facility Siting
 - ◆ Compliance with RAGAGEP
 - ◆ Safer Technology and Alternatives Analysis
 - ◆ Inherently Safer Technology or Design Implementation
 - Compliance Audit
 - Employee Participation
 - Incident Investigation
- ▶ Emergency Response (Subpart E)
- ▶ Information Availability
- ▶ Other Areas of Technical Clarification
 - Process Safety Information (PSI)
 - Hot Work Permits
 - Operating Procedure Development
 - Retail Facility Exemption

Determining RMP Program Level



Summary of Impact to Program Compliance

| Program Level 1 | Program Level 2 | Program Level 3 |
|---|-------------------------------|---|
| Applicability / Offsite Consequence Analysis / Program Level Determination | | |
| | Safety Information | Process Safety Information |
| | Hazard Review | Process Hazard Analysis (PHA) |
| | Operating Procedures | Operating Procedures |
| | Compliance Audits | Compliance Audits |
| | Incident Investigation | Incident Investigation |
| | Employee Participation | Employee Participation |
| | Training/ Maintenance | Hot Work Permit |
| | | Training/ Mechanical Integrity/ MOC/ PSSR/ Contractors |
| Emergency Response | | |
| Information Availability | | |

Prevention Program (Subpart C and D)

Hazard Review (HR) and Process Hazard Analysis (PHA)

- ▶ Address external events such as **natural hazards** that could cause or exacerbate an accidental release. Natural hazards are defined as meteorological, climatological, environmental or geological phenomena that have the potential for negative impact, accounting for impacts due to climate change.
 - Ensure systems and safeguards are in place to prevent catastrophic releases during these events.
 - May already be included in current practice.
 - If not, should be factored these into all PHA reviews going forward.

- ▶ Risk Management Plan submittal must include justification for any declined recommendations from the natural hazard evaluations.

Hazard Review (HR) and Process Hazard Analysis (PHA)

- ▶ Include evaluation of standby or emergency power systems as safeguards
 - Recommend facilities cover this in the global node or utilities type node.
 - If a facility has done a larger study, the key information should be reviewed and revalidated as needed by the PHA team.

- ▶ Monitoring equipment associated with prevention and detection of accidental releases from RMP covered processes must have standby or backup power to provide continuous operation. This may include process monitoring and control instrumentation with alarms and detection hardware such as area detection monitors for the RMP covered chemicals.
 - Expect more guidance on duration of backup/standby power needed. Most likely for instruments that notify a facility of releases of covered hazardous materials such as LEL monitors, or toxic chemical monitors (H₂S, Ammonia, etc.)

- ▶ Risk Management Plan submittal must include justification for any declined recommendations from the natural hazard and power loss evaluations.

Hazard Review (HR) and Process Hazard Analysis (PHA)

- ▶ Clarify *facility siting* requirements
 - ◆ Placement of processes, equipment, buildings within the facility
 - ◆ Hazards posed by proximate facilities; and
 - ◆ Accidental release consequences posed by proximity to the public and public receptors
- *New requirement* for Program 2 Hazard Reviews
- Industry guidance can be utilized to help adequately address stationary source siting
 - ◆ Expected to be consistent across the entire facility utilizing knowledge of nearby facilities and safeguards of LEPC coordination and emergency response programs. This may be documented utilizing existing industry guidance for facility siting checklists with additional questions aimed at reviewing the clarified information.
 - ◆ If a facility has done a larger facility siting study, the key information should be reviewed and revalidated as needed by the PHA team.
 - ◆ The RMP Public Data Sharing tool can be used to confirm nearby regulated facilities.
- ▶ Risk Management Plan submittal must include justification for any declined recommendations from the facility siting evaluation.

Process Hazard Analysis (PHA)

- ▶ Compliance with RAGAGEP (Recognized and Generally Accepted Good Engineering Practices)
- ▶ PHAs must include **an analysis of the most recently promulgated RAGAGEP** to identify any gaps between codes, standards, and practices which the process was designed to compared to the most current versions.
- ▶ This may include RAGAGEP associated with the facility's design, maintenance, and/or operation
 - **Recommend identifying the most recently promulgated RAGAGEP for all aspects of the system along with any gaps between those and design codes and standards to ensure the system is being maintained and operated to the most recent versions.**
 - **Potentially a stand-alone evergreen study which is referenced with the PHA team during each PHA and gaps are being continually addressed when identified.**
- ▶ Risk Management Plan submittal must include justification for any declined recommendations from the RAGAGEP gap analysis.

Process Hazard Analysis (PHA)

- ▶ Add **Safer Technologies and Alternative Analysis (STAA)** for petroleum refining (NAICS 324) and chemical manufacturing (NAICS 325) processes
 - This analysis considers and documents:
 - ◆ Inherently Safer Technology or Design (IST/ISD)
 - ◆ Passive Measures
 - ◆ Active Measures
 - ◆ Procedural Measures
 - A combination of these measures can be used to achieve the target risk reduction

Process Hazard Analysis (PHA)

- ▶ **Inherently Safer Technology or Design (IST/ISD) Practicability** must be determined and documented for:
 - Petroleum refining and chemical manufacturing processes located within 1 mile of another facility with petroleum refining and chemical manufacturing RMP covered processes
 - All petroleum refining facilities *using hydrofluoric acid (HF) in an alkylation unit*
 - Any petroleum refining and chemical manufacturing with one RMP Reportable Accident since the last PHA.
- ▶ Methods used to determine practicability must be performed by members with expertise in the process and at least one member who works in the process.
- ▶ Risk Management Plan submittal must include a description of any IST/ISD implemented since the last PHA.

Process Hazard Analysis (PHA)

- ▶ These processes must also implement:
 - 1 passive measure OR
 - 1 IST/ISD OR
 - a combination of active and procedural measures with at least an equivalent risk reduction of a passive measure
- ▶ If no passive measures are identified or practicable, one active measure must be implemented
- ▶ If no active measures are identified or practicable, one procedural measure must be implemented
- ▶ Facilities must document evidence and justification for passive and active measures not implemented. The justification for these measures not being practicable **cannot be solely based on cost or reduced profits.**

Process Hazard Analysis (PHA)

- ▶ Expect EPA to provide additional guidance on this in the next year.
- ▶ New Jersey has historically required similar evaluations and provides guidance here: <https://dep.nj.gov/brp/tcpa/#tcpa-ist>
- ▶ Expect EPA to reference this book from CCPS to conduct these evaluations:
<https://www.aiche.org/ccps/resources/publications/books/guidelines-inherently-safer-chemical-processes-life-cycle-approach-3rd-edition>
 - Appendix A checklist: <https://www.aiche.org/sites/default/files/book-downloads/p277iscp3rded-appendixachecklist.pdf>

Compliance Audits

Compliance Audit – Third-Party Audit Requirements

- ▶ Require the next regularly scheduled audit to be a **third-party audit** for:
 - All facilities after one RMP-reportable accident since the most recent compliance audit
 - Any facility when an implementing agency requires a third-party audit due to conditions at the stationary source that could lead to an accidental release of a regulated substance
 - ◆ A process will be in place to appeal this determination from the agency.

- ▶ Third-Party Auditor Independence criteria requires auditors to:
 - Act impartially and receive no financial benefit other than payment for audit services
 - Ensure all third-party personnel involved in audit sign conflict of interest statement and do not accept employment within 2 years of final audit report

Compliance Audit – Third-Party Audit Requirements

- ▶ Audit Findings -
 - Within 90 days of receipt of the third-party audit report, the facility must develop a **Findings Response Report** which includes:
 - ◆ The final audit report
 - ◆ A response to each of the findings
 - ◆ A schedule to address deficiencies
 - ◆ A certification by a senior official
 - Documentation must also be developed regarding the **Schedule Implementation** which notes the actions taken to address the deficiencies and the date the action was completed.
- ▶ Copies of both documents must be provided to the Board of Directors immediately upon completion of the report.
- ▶ Recommend creating a new procedure or appendix within your compliance audit procedures to capture these new requirements.

Employee Participation

Employee Participation

- ▶ Level 2 processes must develop a written **Employee Participation Plan** including:
 - Access to hazard reviews and all other information developed as part of the Prevention Program
 - A process to allow employees to **report unaddressed hazards** to the employer and/or EPA anonymously or with attribution. Reports made to the employer must be retained for 3 years
- ▶ Employees and management must be trained on the details of the plan
 - **May be facilitated via a CBT (or other means) once the procedure has been updated with these new requirements**
- ▶ A notice must be distributed at least annually to employees and representatives indicating the plan is available and how to access the information.
 - **Recommend setting up an annual reminder (i.e. every January) to send a notification via email. Could be a recurring action item in your tracking system, or calendar reminder, etc. Can be a mass email with read/receipt documentation, etc.**

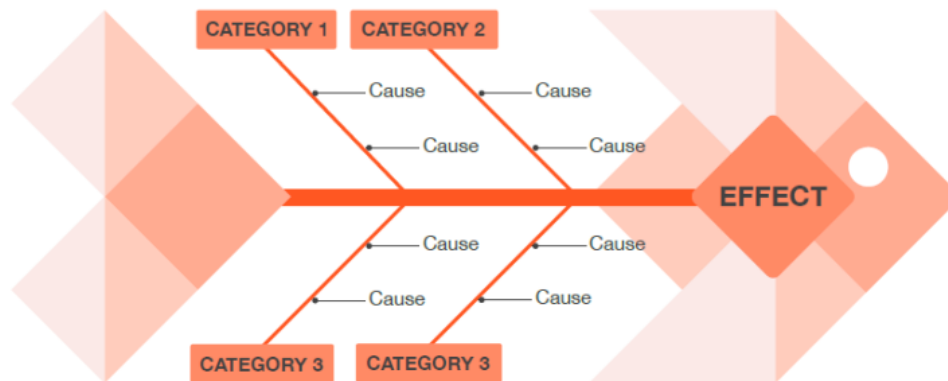
Employee Participation

- ▶ Level 3 processes Employee Participation programs now require:
 - Employers to consult with employees when making decisions on *resolving and implementing recommendations* from PHAs, compliance audits, and incident investigations
 - ◆ The key here is "consult". Will need to go above the current expectations to "inform" employees of the findings and requires a more open sharing of ideas. It does not require consideration of options chosen by employees. This could be a meeting with each shift to review the planned resolutions and listen to other options or a form that can be submitted but there should be some documentation that employees were consulted. Additional EPA guidance is expected here.
 - Stop Work Authority to knowledgeable employees under certain circumstances
 - ◆ Will be similar to existing Stop Work Authority programs but may need to expand that, if necessary, to include Process Safety Stop Work Authority. Most likely already implied but may not be written.
 - Access to process hazard analyses and all other information developed as part of the Prevention Program
 - A process to allow employees to report unaddressed hazards to the employer and/or EPA anonymously or with attribution. Reports made to the employer must be retained for 3 years
 - ◆ New section added to existing plans. We do expect EPA to provide some future guidance on this.

Incident Investigation

Incident Investigation

- ▶ Require a root cause analysis for any **RMP-reportable** accident
 - Use a recognized investigation method
 - Complete within 12 months of the incident
 - Time extension via a written approval may be granted by the implementing agency for complex incidents
 - ◆ Recommend adding a review to the incident review process to ensure that necessary incidents are investigated per these requirements.



Emergency Response (Subpart E)

Community Notification of RMP Accidents

► For **non-responding facilities**:

- Ensure that appropriate mechanisms are in place to **notify emergency responders** when there is need for a response including **timely data** detailing best estimates of the nature of the release

► For **responding facilities**:

- Ensure that the emergency response plan includes providing **timely data** detailing best estimates of the nature of the release

► For **responding & non-responding facilities**:

- Develop and implement procedures for **informing the public and the appropriate federal, state, and local emergency response agencies** about accidental releases
- Ensure that **a community notification system** is in place to warn the public within the area threatened by a release

Emergency Response Exercises



▶ For responding facilities:

- Conduct **field exercises** of a simulated accidental release of a regulated substance by *March 15, 2027* or *at least once every 10 years*, unless local responders indicate **in writing** that frequency is infeasible
- Evaluation reports must be completed within 90 days of each field or tabletop exercise including:
 - ◆ Scenario description
 - ◆ Participant names and organizations
 - ◆ Evaluation of the exercise results including lessons learned and recommendations
 - ◆ A schedule to address and implement recommendations

32 Recommend developing a form that contains this information which can be completed following the exercise and filed with the site. No submittal requirement.

Information Availability

Information Availability

- ▶ Allow the public to request specific information if they reside, work, or spend significant time **within six miles of a facility**
 - Chemical hazard information including names of regulated substances, SDSs, and accident history
 - Access to community emergency preparedness information including responding status, LEPC contact information, notification procedures, and scheduled exercises occurring within 1 year from the request.
 - Declined recommendations and justification from natural hazard, power loss, and siting hazard evaluations, Inherently safer technology or design evaluations, and RAGAGEP gap analysis between design and most recently promulgated RAGAGEP
- ▶ Information must be available in English and/or two commonly spoken language of the affected population
- ▶ The facility must provide ongoing notification that this information is available and instructions on methods to request (such as a company website or social media)
- ▶ Information requested must be provided within 45 days of the request.
- ▶ Facilities must maintain a record of members of the public requesting the information for 5³⁴ years.

Other Areas of Technical Clarification

Other Areas of Technical Clarification

Level 3

- ▶ Process Safety Information
 - Required to be **current**
- ▶ Hot Work Permits
 - Retention for **3 years**

Level 2 and Level 3

- ▶ Operating Procedures
 - Address documentation when monitoring equipment associated with prevention and detection of accidental releases from covered processes is removed due to safety concerns from imminent natural hazards.



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Other Areas of Technical Clarification

- ▶ Retail Facility Exemption
 - “Retail facility” is one in which more than one-half of the “annual” income “in the previous calendar or fiscal year” is obtained from direct sales to end users or at which more than one-half of the fuel sold over that period, by volume, is sold through a cylinder exchange program
- ▶ Storage Incident to Transportation
 - Although the proposed rule did include a clarification of this definition that was NOT adopted in the final rule

Next Steps

EPA Guidance and RMP Resubmittal Expectations

- ▶ EPA has indicated that they will be providing additional guidance for certain area approximately 1 year after the rule takes effect including:
 - Safer Technology and Alternatives Analysis (STAA)
 - Root Cause Analysis
 - Third-party Audits
 - Employee Participation
- ▶ Risk Management Plan Updates
 - Facilities will be required to update and resubmit Risk Management Plans by May 10, 2028 to include the following information:
 - ◆ **All facilities:** Information Availability requirements.
 - ◆ **Level 2 and Level 3 Facilities:** Declined recommendations and justification from natural hazard, power loss, and siting hazard evaluations; identify if the most recent audit was a third-party audit and if so, declined recommendations and justification from that audit.
 - ◆ **Level 3 Facilities:** Inherently safer technology or design implemented since the last PHA, if any; Declined recommendations and justification from inherently safer technology or design evaluations and RAGAGEP gap analysis

Timing for Proposed Rule Changes

| Requirement | Applicable Dates |
|---|------------------|
| Final Rule Promulgated | May 10, 2024 |
| Standby/Backup Power for Monitoring Equipment | May 10, 2027 |
| Safer Technologies and Alternatives Analysis (STAA) | May 10, 2027 |
| Root Cause Analysis Incident Investigation | May 10, 2027 |
| Third-Party Compliance Auditing | May 10, 2027 |
| Employee Participation | May 10, 2027 |
| Emergency Response Public Notification | May 10, 2027 |
| Information Availability | May 10, 2027 |
| Emergency Response Field Exercise Frequency | March 15, 2027* |
| RMP Resubmittal | May 10, 2028 |

*Or within 10 years of an emergency response field exercise completed between 3/15/2017 & 8/31/2022 in accord w/ 68.96(b)(1)(ii)

Additional Resources

- ▶ Trinity eNews Article

<https://www.trinityconsultants.com/news/epa-finalizes-rmp-safer-communities-by-chemical-accident-prevention-rule>

- ▶ Trinity EHS Quarterly

<https://media.trinityconsultants.com/view/958927042/>

- ▶ EPA RMP SCCAP Rule

<https://www.epa.gov/rmp/risk-management-program-safer-communities-chemical-accident-prevention-final-rule>

Questions?





Need Additional Training?

Go to Trinity's website:

<https://www.trinityconsultants.com/training/>

Contact Us

Scott Kindy

▶ 806-273-5100

▶ skindy@trinityconsultants.com