

Council of Industrial Boiler Owners

Technical Focus Group, Energy & Environmental Committee Meetings
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Arent Fox

EPA's Revisions to the RMP Rule

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Final Amendments to EPA's RMP Rule

➤ *Six major changes:*

- **Require Third-Party Compliance Audits**
- **Incident Investigations and Accidental Releases**
- **Safer Technology and Alternatives Analysis**
- **Coordination among Emergency Response Personnel, LEPCs and Local Responders**
- **Emergency Response Drills & Exercises**
- **Information Sharing**

Final Amendments to EPA's RMP Rule

➤ *Four other significant changes:*

- **Scope of compliance audits: “each covered process”**
- **Training for supervisors “with process operational responsibilities”**
- **Scope of PHAs (findings from incident reports and potential failure scenarios)**
- **Updating PSI**

Implementation Time Line for the Big Six

March 21, 2018

Emergency Response Coordination

Within 3 Years

Emergency Response Program

March 15, 2021

Third-party Audits

Incident Investigation and Root Cause

**Safer Technology and Alternatives
Analysis**

Emergency Response Exercises

Public Information

Implementation Time Line

The preamble states as follows: “EPA . . . is finalizing a four-year compliance date for third-party audits. This means that for any RMP reportable accident occurring later than four years after the effective date of the rule, the owner or operator of a source must conduct a third-party audit.” 82 Fed. Reg. at 4676.

Third-Party Compliance Audits for Next Required Compliance Audit

- **Two Triggers for Requiring a Third-Party Audit**
 - An accidental release meeting the requirements of 68.42(a).
 - The Agency requires it based on conditions at the stationary source “that could lead to an accidental release of a RS” or previous third-party audit failed the competence or independence criteria. A facility may appeal this within the Agency.

- **Accidental Release is a release of a regulated substance from a covered process that “results in deaths, injuries, significant property damage on site or known offsite deaths, injuries, evacuations, sheltering in place or property damage or environmental damage.”**

Third-Party Compliance Audits

- **The owner/operator shall either engage a third-party auditor meeting all of the competency and independence criteria (“I & C”)**

OR

assemble a team lead by an I & C auditor.

- **Scope of third-party audit – all covered units of that facility, not just the unit which had the accidental release.**

Third-Party Compliance Audits

- **Competent auditor**

- Knowledgeable in RMP
- Experience with process, facility and relevant RAGAGEP
- Trained in auditing

- **Independent auditor**

- Act impartially in performing all duties of an independent auditor
- Benefit limited to audit fee
- No prior work for audited company in last 2 years (except auditing)
- No subsequent work for or employment with audited company for 2 years after audit
- Consider work history of the individual auditor – not his employer.

Third-Party Audit Report

- **Summary of the audit team’s names and qualifications**
- **Describe or incorporate the auditor’s policies and procedures “to ensure all personnel comply with the competency and independence requirements. . . .”**
- **Documentation of audit findings and deficiencies**
- **Summary of any significant revisions or changes between draft and final versions of the audit report**
- **Certification by auditor:**
 - Adhered to RMP requirements
 - Information in report is “true, accurate and complete.”

Third-Party Audit Findings

- **Schedule for Completing the Third-Party Audit**
 - **The audit and the audit report must be completed within 12 months of an accidental release or**
 - **Within 12 months of a final determination by EPA that an audit is warranted.**

Third-Party Audit Findings

➤ Findings Response Report

- Within 90 days of receiving the final report, the owner/operator shall determine an appropriate response to each finding and develop a schedule for addressing each deficiency.
- Document the actions taken to address each deficiency with a completion date.
- The third-party audit report and response report must be provided to the owner/operator's audit committee for the Board of Directors or comparable committee.

Incident Investigation and Root Cause

➤ § 68.81 Incident Investigation

- (a) The owner or operator shall investigate each incident that:
 - (1) Resulted in a catastrophic release (including when the affected process is decommissioned or destroyed following, or as the result of, an incident); or
 - (2) Could reasonably have resulted in a catastrophic release (i.e., was a near miss).

Incident Investigation and Root Cause

- **Written incident report shall be prepared within 12 months of incident**
 - Time, date and location of incident
 - Date incident investigation began
 - Description of incident, in chronological order, providing all relevant facts
 - Name and amount of RS released, duration of event
 - Consequences of incident injuries, facilities, evacuees, sheltering in place, environment impact

Incident Investigation and Root Cause

- Emergency response actions
- Contributing factors, initiating event, direct, indirect factors, and root causes
 - Root cause determination must be based on a “recognized method”
- Recommendations and a schedule for addressing them

❖ **Root cause means a fundamental, underlying system-related reason why an incident occurred.**

RMP Revisions: PHA and Findings, Failure Scenarios and IST

➤ **The PHA shall also address:**

**(2) Findings from all incidents required by 68.81 and
“any other potential failure scenarios.”**

**(8) For NAICS 322, 324, and 325, safer technology and
alternative risk management measures to eliminate or
reduce risk from process hazards.**

**The owner/operator shall consider, in the following order
of performance, IST or design, passive measures, active
measures and procedural measures.**

**Owner/operator shall determine the practicability of IST
and designs.**

RMP Revisions: PHA and Findings, Failure Scenarios and IST

Potential Failure Scenarios (Preamble)

“In response, as stated in the preamble to the proposed rulemaking, other potential failure scenarios can include incidents that occurred at other similar facilities and or processes, failure mechanisms discovered in literature, or from other sources of information. EPA believes that it is appropriate to research information about other potential scenarios and consider these scenarios when conducting a (PHA).” 82 Fed. Reg. at 4635.

Safer Technology and Alternatives Analysis

- **Inherently safer technology or design means risk management measures that minimize the use of regulated substances, substitute less hazardous substances, moderate the use of regulated substances, or simplify covered processes in order to make accidental releases less likely, or the impacts of such releases less severe.**
 - Minimization
 - Substitution
 - Moderation
 - Simplification

Safer Technology and Alternatives Analysis

- **Passive measures** means risk management measures that use design features that reduce the hazard or consequences without human, mechanical, or other energy input.
- **Examples of passive measures include:**
 - pressure vessel designs
 - dikes
 - berms
 - blast walls.

Safer Technology and Alternatives Analysis

- **Active measures** means risk management measures or engineering controls that rely on mechanical, or other energy input to detect and respond to process deviations.
- **Examples of active measures include:**
 - alarms
 - safety instrumented systems
 - detection hardware (such as hydrocarbon sensors).

Safer Technology and Alternatives Analysis

- **Procedural measures means risk management measures such as:**
 - policies
 - operating procedures
 - training
 - administrative controls
 - emergency response actions to prevent or minimize incidents.

Safer Technology and Alternatives Analysis

- The owner/operator shall determine the practicability of the inherently safer technologies and designs considered.
- “Practicability” is defined as “capability of being successfully accomplished within a reasonable time, accounting for economic, environmental, legal, social, and technological factors. Environmental factors would include consideration of potential transferred risks for new risk reduction measures.”
- Practicability defined
 - Reasonable time
 - Economic
 - Environmental
 - Social
 - Technological

Emergency Response Revisions to RMP Rule

- **Non-responding stationary source – its employees do not respond to accidental releases.**
 - Notification mechanism
 - Annual coordination activities
 - Annual notification exercise
 - Documentation of coordination and notification exercises

Emergency Response Revisions to RMP Rule

➤ Non-responding stationary source

- For stationary source with toxics, stationary source is included in community emergency response plan.
- For stationary source with only flammables, owner/operator must coordinate response actions with local fire department.
- Appropriate mechanism to notify emergency responders of need to respond.
- Owner/operator must perform annual emergency response coordination activities.
- Owner/operator must perform an annual notification exercise.
- Owner/operator must document coordination and notification.

Emergency Response Revisions to RMP Rule

- **Responding stationary source**
 - Emergency response coordination
 - Emergency response program
 - Emergency response exercise program
 - Documentation of coordination and exercises

Emergency Response Revisions to RMP Rule

- **Owner/operator will coordinate emergency response needs with LEPC to determine how stationary source is addressed in community emergency response plan.**
- **Owner/operator will ensure that local response organizations are aware of:**
 - Regulated substances
 - Quantities of RS's
 - Risks of processes
 - Resources and capacities of stationary source to respond to accidental release

Emergency Response Revisions to RMP Rule

➤ Annual Coordination with LEPC

- More if necessary by changes

➤ Coordination includes providing:

- Emergency response plan
- Contact information
- LEPC with requested information relevant to emergency response planning
- Scheduling plans for field and table top exercises
- Request meeting with LEPC and/or fire department as appropriate to discuss emergency response

➤ Documentation

- Owner/operator must document coordination with local authorities

Emergency Response Program

- **Procedure to notify public/government about accidental release**
- **Review and update plan per changes and new information**
 - Notify employees of changes
- **Upon request, owner/operator must promptly provide local response officials “information necessary to implementing community emergency response plan”**

Emergency Response Exercise Program

- **Owner/operator will develop and implement an emergency response exercise program**
- **Exercises shall include:**
 - Response personnel
 - Contractors as appropriate
 - Coordinate with local responders and invite them to exercises
- **Owner/operator must conduct an annual notification exercise which may be included in a table top and/or field exercise.**

Emergency Response Exercise Program

- **Field Exercise – Simulated Release of RS**
 - Consult with local emergency response official
 - Establish an appropriate frequency which “at a minimum” is once every ten years
 - Scope of field exercise
 - Test notification procedure
 - Test emergency response
 - Evacuation
 - Communication system
 - Medical treatment
 - Mobilization of response personnel
 - Equipment deployment
 - Coordination

Table Top Exercises – Simulated Release of RS

- **Consult with local emergency response official to develop appropriate frequency which “at a minimum, must be once every three years.”**

- **Scope of table top exercise**
 - Discussion of procedure to notification
 - Emergency response procedure
 - Communication system
 - Medical treatment
 - Mobilization and response personnel
 - Equipment deployment
 - Coordination with local responders

Summary of Emergency Response Exercises

Exercise	Frequency	Documentation
Notification	Annual	Yes
Table Top	Every 3 Years at least	Yes
Field	Every 10 Years at least	Yes
Alternative Means		Yes

Information Sharing with the Public – Hazard Chemical Information

➤ **Owner/operator must provide upon request by any member of public chemical hazard information:**

- Regulated substances (“RS”)
- SDS for RSs
- 5-year accident history
- Summary of emergency response program
- List of scheduled emergency response exercises
- LEPC contact information

➤ **Within 45 days of request**

Information Sharing with the Public

- **Owner/operator must provide notification on website, social media platforms, or other “publicly accessible means”**
 - Chemical hazard information
 - Instruction on how to request that information
 - Means to access information on community preparedness including shelter in place and evacuation

Information Sharing with the Public

➤ Public meetings

- Owner/operator shall hold a public meeting to provide information for an accidental release per 68.42(a) within 90 days of the incident
- The required information to be shared at the public meeting:
 - hazard chemical information
 - date, time and duration of release
 - chemical released
 - estimate of quantity of release
 - weather conditions
 - on and off-site impacts
 - initiating event and contributing factors
 - resulting changes
- CBI and classified information may be withheld