

# EPA Risk Management Plan

Rule Updates (as of July 2021)





# CLEAN AIR ACT

## RMP Regulation

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- Part of 1990 Clear Air Act Amendments (Section 112(r))
- Applies to facilities that use Extremely Hazardous Substances (EHS)
- Must develop and implement RMP Plan if exceed threshold quantity(TQ) of EHS (see Consolidated List of Lists)
- If have EHS and not over TQ, must follow General Duty Clause

# EPA Consolidated List of Lists (August 2020)

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
4-Aminobiphenyl	92-67-1			1	313		
1-Amino-2,4-dibromoanthraquinone	81-49-2				313		
1-Amino-2-methylantraquinone	82-28-0				313		
5-(Aminomethyl)-3-isoxazolol	2763-96-4	500/10,000	1,000	1,000		P007	
Aminopterin	54-62-6	500/10,000	500				
4-Aminopyridine	504-24-5	500/10,000	1,000	1,000		P008	
Amiton	78-53-5	500	500				
Amiton oxalate	3734-97-2	100/10,000	100				
Amitraz	33089-61-1				313		
Amitrole	61-82-5			10	313	U011	
Ammonia	7664-41-7	500	100	100			
Ammonia (anhydrous)	7664-41-7	500	100	100	X		10,000
Ammonia (conc 20% or greater)	7664-41-7			See ammonium hydroxide	X		20,000
Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing)	7664-41-7				313		
Ammonium acetate	631-61-8			5,000			
Ammonium benzoate	1863-63-4			5,000			
Ammonium bicarbonate	1066-33-7			5,000			
Ammonium bichromate	7789-09-5			10	313c		
Ammonium bifluoride	1341-49-7			100			
Ammonium bisulfite	10192-30-0			5,000			
Ammonium carbamate	1111-78-0			5,000			
Ammonium carbonate	506-87-6			5,000			
Ammonium chloride	12125-02-9			5,000			
Ammonium chromate	7788-98-9			10	313c		
Ammonium citrate, dibasic	3012-65-5			5,000			
Ammonium fluoborate	13826-83-0			5,000			
Ammonium fluoride	12125-01-8			100			
Ammonium hydroxide	1336-21-6			1,000	X		
Ammonium oxalate	5972-73-6			5,000			
Ammonium oxalate	6009-70-7			5,000			
Ammonium oxalate	14258-49-2			5,000			
Ammonium picrate	131-74-8			10		P009	
Ammonium silicofluoride	16919-19-0			1,000			
Ammonium sulfamate	7773-06-0			5,000			
Ammonium sulfide	12135-76-1			100			

Chlorinated Naphthalene	N.A.				&		
Chlorinated Phenols	N084				&	313	
Chlorine	7782-50-5	100	10	10	313		2,500
Chlorine dioxide	10049-04-4				313		1,000
Chlorine monoxide	7791-21-1						10,000
Chlorine oxide	7791-21-1						10,000
Chlorine oxide (ClO2)	10049-04-4				X		1,000
Chlormephos	24934-91-6	500	500				

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Fluorene	86-73-7			5,000			
Fluorine	7782-41-4	500	10	10	313	P056	1,000
Fluoroacetamide	640-19-7	100/10,000	100	100		P057	
Fluoroacetic acid	144-49-0	10/10,000	10				
Fluoroacetic acid, sodium salt	62-74-8	10/10,000	10	10	X	P058	
Fluoroacetyl chloride	359-06-8	10	10				
Fluorouracil	51-21-8	500/10,000	500		313		
5-Fluorouracil	51-21-8	500/10,000	500		X		
Fluvalinate	69409-94-5				313		
Folpet	133-07-3				313		
Fomesafen	72178-02-0				313		
Fonofos	944-22-9	500	500				
Formaldehyde	50-00-0	500	100	100	313	U122	15,000
Formaldehyde cyanohydrin	107-16-4	1,000	1,000				
Formaldehyde (solution)	50-00-0	500	100	100	X	U122	15,000
Formetanate hydrochloride	23422-53-9	500/10,000	100	100		P198	
Formic acid	64-18-6			5,000	313	U123	
Formic acid, methyl ester	107-31-3						10,000



# EPA Consolidated List of Lists (August 2020)

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Hexazinone	51235-04-2				313		
Hydramethylnon	67485-29-4				313		
Hydrazine	302-01-2	1,000	1	1	313	U133	15,000
Hydrazine, 1,2-diethyl-	1615-80-1			10		U086	
Hydrazine, 1,1-dimethyl-	57-14-7	1,000	10	10	X	U098	15,000
Hydrazine, 1,2-dimethyl-	540-73-8			1		U099	
Hydrazine, 1,2-diphenyl-	122-66-7			10	X	U109	
Hydrazine, methyl-	60-34-4	500	10	10	X	P068	15,000
Hydrazine sulfate (1:1)	10034-93-2				313		
Hydrazobenzene	122-66-7			10	X	U109	
Hydrochloric acid	7647-01-0			5,000			
Hydrochloric acid (conc 37% or greater)	7647-01-0			5,000			15,000
Hydrochloric acid (aerosol forms only)	7647-01-0			5,000	313		
Hydrocyanic acid	74-90-8	100	10	10	X	P063	2,500
Hydrofluoric acid	7664-39-3	100	100	100	X	U134	
Hydrofluoric acid (conc. 50% or greater)	7664-39-3	100	100	100	X	U134	1,000
Hydrogen	1333-74-0						10,000
Hydrogen chloride (anhydrous)	7647-01-0	500	5,000	5,000	X		5,000
Hydrogen chloride (gas only)	7647-01-0	500	5,000	5,000	X		5,000
Hydrogen cyanide	74-90-8	100	10	10	313	P063	2,500
Hydrogen fluoride	7664-39-3	100	100	100	313	U134	
Hydrogen fluoride (anhydrous)	7664-39-3	100	100	100	X	U134	1,000
Hydrogen peroxide (Conc. > 52%)	7722-84-1	1,000	1,000				
Hydrogen selenide	7783-07-5	10	10		313c		500
Hydrogen sulfide	7783-06-4	500	100	100	313	U135	10,000
Hydroperoxide, 1-methyl-1-phenylethyl-	80-15-9			10	X	U096	
Hydroquinone	123-31-9	500/10,000	100	100	313		
Imazalil	35554-44-0				313		
Indeno[1,2,3-cd]pyrene	193-39-5			100	313+	U137	
3-Iodo-2-propynyl butylcarbamate	55406-53-6				313		
Iron carbonyl (Fe(CO) <sub>5</sub> ), (TB-5-11)-	13463-40-6	100	100		X		2,500
Iron, pentacarbonyl-	13463-40-6	100	100		313		2,500
Isobenzan	297-78-9	100/10,000	100				
Isobutane	75-28-5						10,000



United States  
Environmental Protection  
Agency

Office of Land  
and  
Emergency Management

EPA 550-B-20-001  
August 2020  
[www.epa.gov/epcra](http://www.epa.gov/epcra)

## LIST OF LISTS

Consolidated List of Chemicals  
Subject to the Emergency  
Planning and Community Right-  
To-Know Act (EPCRA),  
Comprehensive Environmental  
Response, Compensation and  
Liability Act (CERCLA) and  
Section 112(r) of the Clean Air Act

- EPCRA Section 302 Extremely Hazardous Substances
- CERCLA Hazardous Substances
- EPCRA Section 313 Toxic Chemicals
- CAA 112(r) Regulated Chemicals for Accidental Release Prevention

# WHAT IS A RMP?

Tells a Story to public and emergency responders

1. Hazardous Chemicals at your site
2. Worst-case scenario
3. Alternative release scenario
4. Potential off-site impacts
5. 5-year accident history
6. Prevention Program
7. Emergency Response Program





Verses



## RMP

- Concerned about the public safety and environmental protection
- Requires submission of plan to EPA
- Updates/resubmissions every 5 years (or other conditions)
- Requires prevention program (PSM)
- Requires coordination with local responders
- Available for public review

Part of EPA Air Regulations – 40 CFR Part 68

## PSM

- Concerned about employee safety
- No submission required
- Is a prevention program for releases
- Requires emergency response plan
- Limited availability to public (only parts included in the RMP)

General Industry Standards – 29 CFR 1910.119

# Can I be subject to PSM and NOT RMP or vice versa?

## EPA Threshold

- Formaldehyde = 15,000 lbs
- Chlorine = 2,500 lbs
- Hydrochloric acid = not listed
- Ozone = not listed

## OSHA PSM

- Formaldehyde = 1,000 lbs
- Chlorine = 1,500 lbs
- Hydrochloric acid = 5,000 lbs
- Ozone = 100 lbs

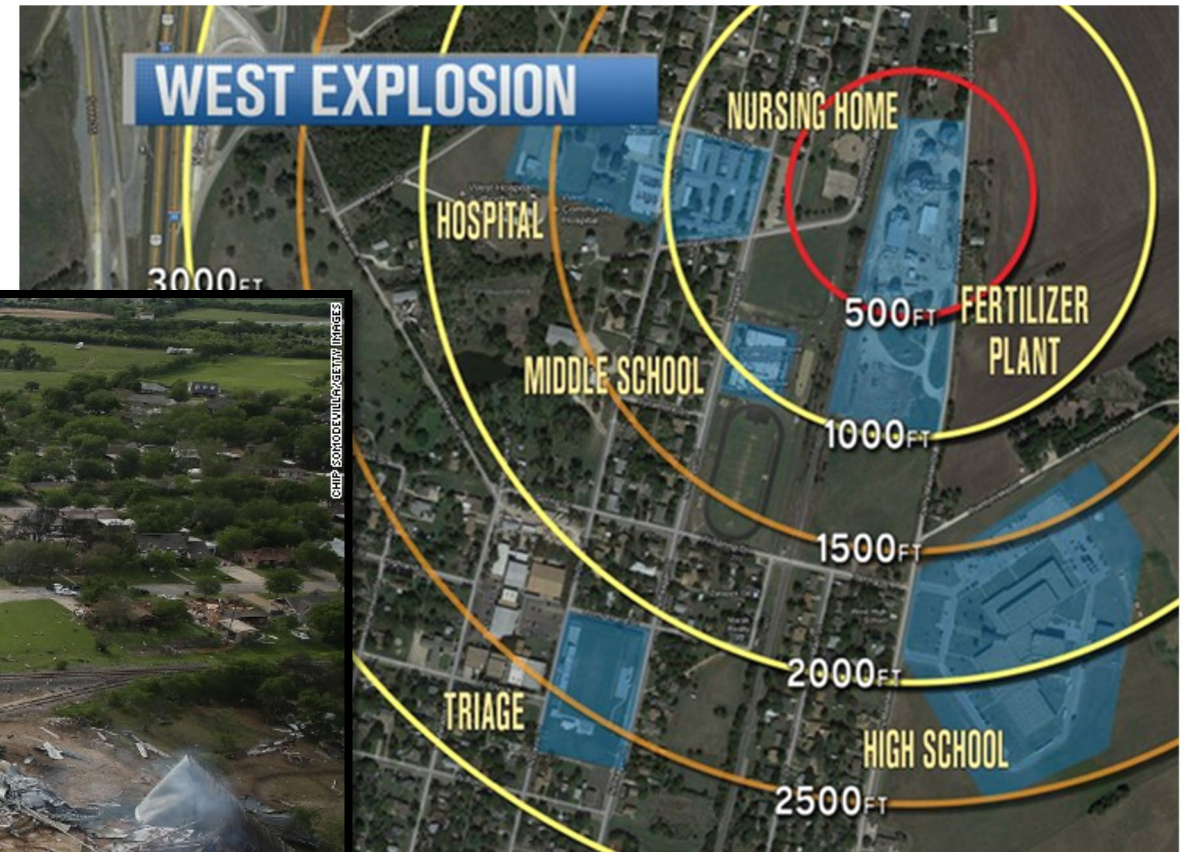




# West, Texas - 2013

Ammonium Nitrate Explosion

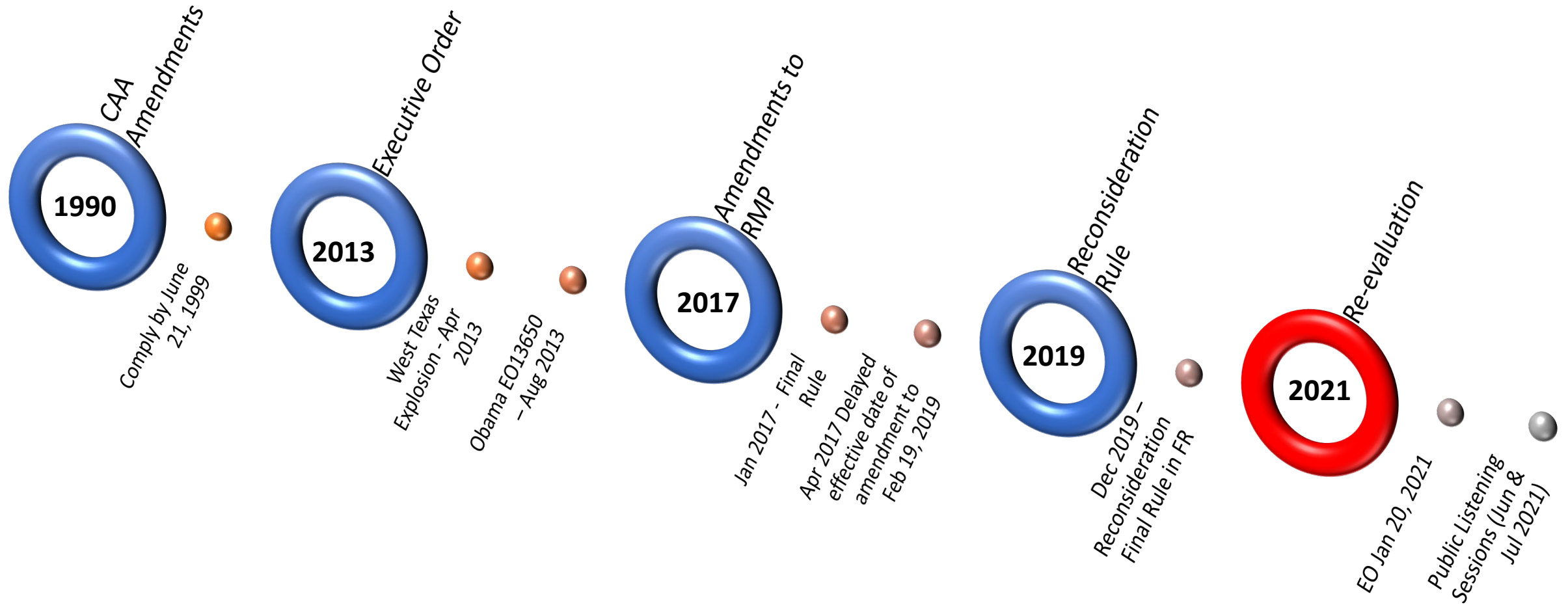
[West Texas Video](#)



Obama Executive Order 13650: Improving Chemical Facility Safety and Security



# RMP Timeline





# EPA RMP Amendments 2017

## **Amendments to Risk Management Plan Regulation affect:**

- Accident Prevention Program
- Emergency Response Enhancements
- Enhanced Availability of Information



# EPA RMP Amendments 2017

## Accident Prevention Program – 3 Changes

- Must conduct Root Cause Analysis as part of incident investigation.
- Must have Independent Third-Party Audit to perform a compliance audit AFTER the facility has an RMP reportable accident.
- PHAs – new requirement to conduct a safer technology and alternatives analysis (STAA) as part of PHA (**NOTE: Only NAICS codes 322 (Paper Manufacturing), 324 (Petroleum & Coal Products/Manufacturing) and 325 (Chemical Manufacturing)**)

### What is a REPORTABLE INCIDENT/ACCIDENT?

#### §68.42 Five-year accident history.

(a) The owner or operator shall include in the five-year accident history all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage.





# EPA RMP Amendments 2017

## Emergency Response Enhancements

- **Annual coordination** with the local emergency response agencies
- **Conduct Notification exercises Annually** to ensure that their emergency contact information is accurate and complete.
- For those sites that “Respond”
  - **Conduct Field Exercises** with LEPC/Fire Dept – minimum of once every 10 years
  - **Tabletop Exercises** with LEPC/Fire Dept – minimum of once every 3 years





# EPA RMP Amendments 2017

## Enhanced Availability of Information

- Facilities must provide certain basic information to the public, upon request within 45 days
- Must provide ongoing notification of availability of information elements on a company
- Must hold a public meeting for the local community within 90 days of a REPORTABLE ACCIDENT.

**TRANSPARENCY**

# Why did EPA “Reconsider” Amendments

Based on objections in three (3) petitions AND based on its own review

1. Potential security risks associated with new information disclosure requirements introduced in the final Amendments rule
2. The Bureau of Alcohol, Tobacco, Firearms and Explosive's (BATF) finding that a key incident affecting US chemical safety policy, a fire and explosion in West, Texas, was caused by a criminal act (arson) rather than being the result of an accident
3. Concerns with the costs of the Amendments rule
4. Concerns that EPA did not adequately coordinate its rulemaking with OSHA



# EPA made changes to Amendments to:

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1

Maintain consistency of RMP accident prevention requirements with the OSHA Process Safety Management (PSM) standard;

2

Address security concerns;


3

Reduce unnecessary regulations and regulatory costs;

4

Revise some compliance dates to provide necessary time for program changes.

# Major Provisions that were Rescinded

RESCINDED	RATIONALE
<b>Third-Party Audits</b>	
Requirement to hire a third-party (narrowly defined) to conduct the compliance audit after an RMP reportable accident (or after an implementing agency determines that conditions at the stationary source could lead to an accidental release of a regulated substance or identifies problems with the prior third-party audit)	<ul style="list-style-type: none"><li>• Rescinded.</li><li>• Not necessary. EPA retains the ability to require third party audits under appropriate circumstances.</li></ul> 

# Major Provisions that were Rescinded

## Safer Technologies and Alternatives Analysis (STAA)

Requirement to assess theoretically safer technology and alternative risk management measures applicable to eliminating or reducing risk from process hazards; to consider inherently safer technology methods, such as chemical substitution and process redesign, to reduce risk; and to evaluate the practicability of any inherently safer technologies and designs considered.



**Safer  
Technologies**

- Rescinded.
- Not practical to implement or necessary given that the evidence does not demonstrate reduction in accidents.
- The costliest provision of the RMP Amendments accounting for \$70 million of the roughly \$88 million in annual cost savings from this rule.
- Can be required in appropriate circumstances.
- The RMP Amendments rule did not require implementation of any technologies considered; therefore, this rescission results in no impact on safety.
- The RMP rule's existing Process Hazard Analysis provisions already encourage facilities to implement safer technologies by requiring periodic re-evaluation of process hazards and implementing appropriate hazard controls.



## Major Provisions that were Rescinded



Incident Investigation Root Cause Analysis	
Requirement to conduct and document a root cause analysis after an RMP reportable accident or a near miss	<ul style="list-style-type: none"><li>• Rescinded to maintain consistency with OSHA PSM standard. Many facilities may already use root cause analysis for incident investigations.</li></ul>



Facility Chemical Hazard Information	
Information very broadly defined must be made available by facility to public on request	<ul style="list-style-type: none"><li>• Rescinded. During interagency review of the RMP Amendments in 2016, one agency warned that requiring release of this information “could assist terrorists in selecting targets and/or increase the severity of an attack.”</li><li>• This rescission addresses those concerns by eliminating the significant risk of the compelled release of information that could pose a security/terrorism threat without a demonstrated need for the information.</li></ul>
Other ‘minor’ prevention program changes	<ul style="list-style-type: none"><li>• Mostly rescinded.</li></ul>

# Major Provisions that were Rescinded

RETAINED/MODIFIED	RATIONALE
Enhanced Local Emergency Coordination Requirements	
<b>Retained</b> the requirement that facilities must coordinate annually with local response organizations and document coordination activities	<ul style="list-style-type: none"><li>• Worked well.</li><li>• Good coordination between facilities and local responders is critical to reducing the impact(s) of incidents.</li><li>• Compliance date: March 14, 2018 (Court mandate made this effective as of September 21, 2018)</li></ul>
<b>Modified</b> provision to reduce potential security risks associated with avoiding the unnecessary and open-ended information disclosure provision.	<ul style="list-style-type: none"><li>• Modifications enable emergency response planners to obtain information “necessary for” planning and implementation of local emergency response plans.</li><li>• Compliance date specified above.</li></ul>



# Retained Requirements with Modifications



# Retained Requirements with Modifications

## Tabletop and Field Exercises



RETAINED/MODIFIED	RATIONALE
<b>Retained</b> requirement to perform field and tabletop exercises	<ul style="list-style-type: none"><li>EPA views these exercises as important components of an emergency response program because they provide essential training for facility personnel and local responders</li></ul> <p>Compliance date:</p> <ul style="list-style-type: none"><li>Old: Plan and schedule developed by March 15, 2021</li><li>New: By <b><u>four years</u></b> after date of FR publication, the owner or operator shall have developed plans for conducting emergency response exercises.</li></ul>

December  
2023

# Retained Requirements with Modifications



Emergency Exercise Provisions	
<u>Retained</u> annual notification drills	<ul style="list-style-type: none"><li>EPA views these drills as important to confirm that emergency contact information is accurate and up to date.</li></ul> <p>Compliance date:</p> <ul style="list-style-type: none"><li>Old: March 15, 2021</li><li>New: Perform first notification exercise by five years after date of FR publication.</li></ul>

December  
2024

# Retained Requirements with Modifications

## Tabletop Exercises

RETAINED/MODIFIED	RATIONALE
<p><b>Retained</b> frequency of tabletop exercises (<b>at least once every three years</b>); Tabletop exercises involve discussion of actions (often in a role-playing mode) a facility and local responders would take to respond to an accidental release and are frequently part of a successful training program for facility personnel and local responders.</p>	<ul style="list-style-type: none"><li>Allows participants to identify key areas of communication and coordination between a facility and local responders.</li><li>Retaining the 3-year tabletop exercise frequency will ensure that local responders (many of whom in rural areas are volunteers) and facilities conduct regular emergency training without excessive resource demands.</li></ul> <p>Compliance date:</p> <ul style="list-style-type: none"><li>Old: March 15, 2021</li><li>New: Perform first tabletop exercise by date seven (7) years after date of FR publication.</li></ul>



December  
2026

# Retained Requirements with Modifications

## Field Exercises

RETAINED/MODIFIED	RATIONALE
<p><b>Modified</b> frequency of <b>field exercises</b> by <b>removing</b> the minimum frequency requirement of at least every <b>ten years for field exercises</b>; Modified to require owner/operator to consult with local emergency response officials to <b>establish an appropriate frequency</b></p>	<ul style="list-style-type: none"><li>• Allows participants to identify key areas of communication and coordination between a facility and local responders.</li><li>• Retaining the 3-year tabletop exercise frequency will ensure that local responders (many of whom in rural areas are volunteers) and facilities conduct regular emergency training without excessive resource demands.</li></ul> <p>Compliance date:</p> <ul style="list-style-type: none"><li>• Old: March 15, 2021</li><li>• New: Perform first tabletop exercise by date seven (7) years after date of FR publication.</li></ul>



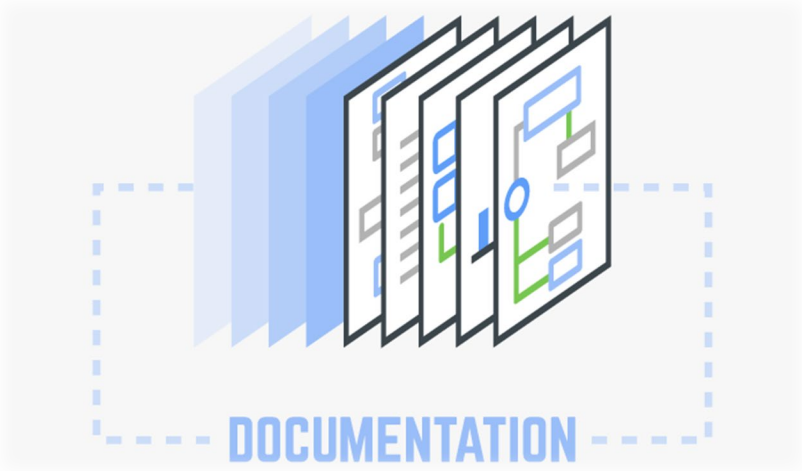
December  
2026



# Retained Requirements with Modifications

## Tabletop & Field Exercise Documentation

RETAINED/MODIFIED	RATIONALE
<p><b>Modified</b> scope and documentation provisions for <b>both field and tabletop exercises</b> by only recommending, and not requiring, items specified for inclusion in exercises and exercise evaluation reports, while still requiring documentation of both types of exercises.</p>	<ul style="list-style-type: none"><li>Modified to reduce burden on facilities and local emergency responders – many of whom in rural areas are volunteers.</li></ul> <p>Compliance date:</p> <ul style="list-style-type: none"><li>Old: March 15, 2021</li><li>New: Perform first tabletop exercise by date seven (7) years after date of FR publication.</li></ul> <div>December 2026</div>



# Retained Requirements with Modifications

## Public Meetings

RETAINED/MODIFIED	RATIONALE
<b>Retained with modifications</b> the requirement that a facility must hold a public meeting within 90 days of accident with an offsite impact (i.e. known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage)	<ul style="list-style-type: none"><li>Modified the requirement to hold a public meeting after an incident that has offsite impacts, which will be the events of greatest public interest, <b>as contrasted with releases with onsite impacts only.</b></li><li>In addition, public exchanges of information will improve the quality of incident investigation because the public may possess information the facility does not, such as information about public impacts.</li></ul> <p>Compliance date retained from RMP Amendments rule:</p> <ul style="list-style-type: none"><li>Comply following any RMP reportable accident with offsite impacts that occurs after March 15, 2021.</li></ul>



# What information is available to the public?

- Read-only access to the full version of facility RMPs at reading rooms by appearing in person at a Federal reading room;
- Read-only RMP access directly from the local emergency planning committee in the location where the person lives or works; or
- Submitting a FOIA request to EPA.

## Rescinded from Amendments

- Requirement for operator to provide within 45 days of receiving a request by any member of the public, specified chemical hazard information for all regulated process



# Summary

Rescinds all major accident prevention program provisions of the 2017 RMP Amendments (i.e., third party audits, safer technology and alternatives analyses, incident investigation root cause analysis, etc.), and most other minor changes to the prevention program;

Rescinds the public information availability provisions of the 2017 RMP Amendments;

Retains the requirement to hold a public meeting within 90 days after an accident, but only applies the requirement to accidents with offsite impacts;

Modifies the emergency coordination provisions to address security concerns with the 2017 RMP Amendments;

Modifies the exercise provisions to give more flexibility to regulated facilities and local emergency responders in complying with the rule; and

Modifies some compliance dates to provide necessary time for program changes (see next slides).

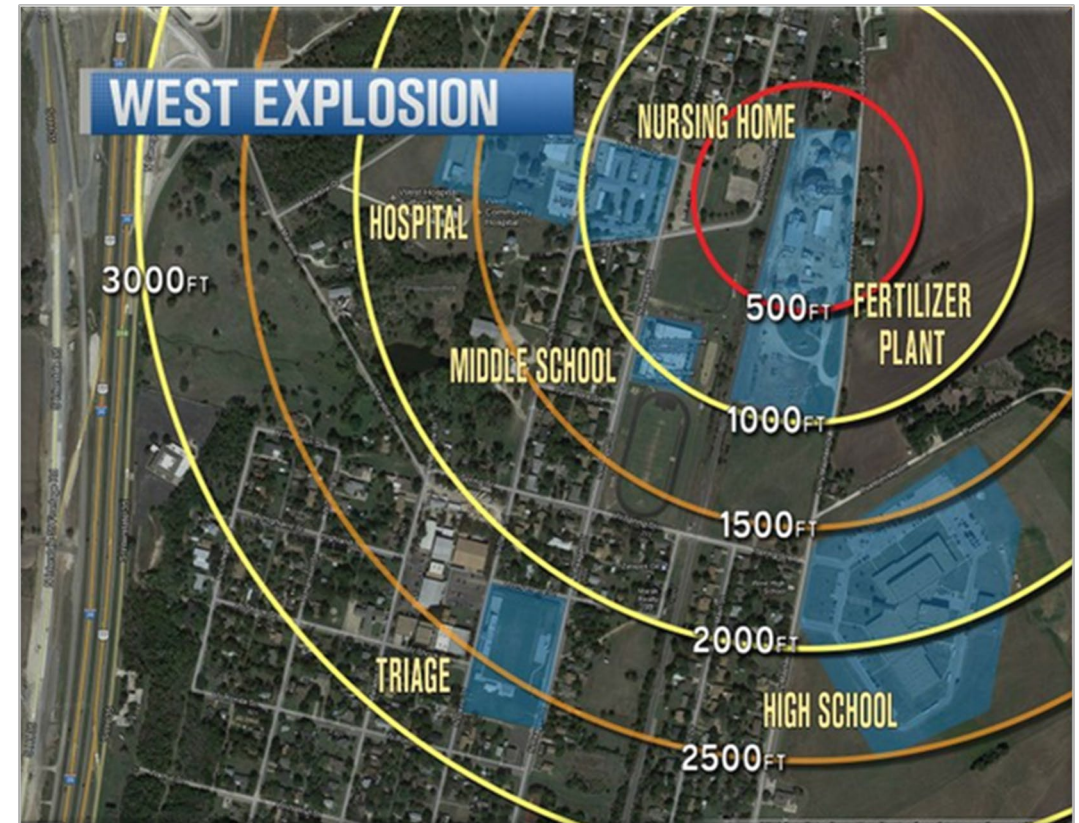
# Compliance Dates

What	Due Date
Public Meetings	Within 90 days of any qualifying accident that occurs after March 15, 2021
Develop Emergency Response Programs	Within three years of owner or operator determining that facility is subject to the provisions
Develop exercise plans and schedules	December 2023
Conduct first notification drill	December 2024
Conduct first tabletop exercise	December 2026
Conduct first field exercise	According to the exercise schedule established by the owner or operator in coordination with local response agencies
Submit RMP with new information elements	The owner or operator would provide new information elements with any initial RMP or RMP resubmission made after December 2024.
Comply with new emergency coordination requirements	Already in effect as of September 21, 2018
Comply with remaining minor accident prevention provisions	Already in effect as of September 21, 2018



# What EPA is doing to prevent future accidents like what occurred in West, Texas 2013

- The fire at the West Fertilizer facility was caused by arson and involved a chemical (ammonium nitrate) not covered by any version of the RMP rules. Therefore, none of the RMP requirements – whether promulgated by the previous administration or this administration – prevent criminal acts of arson or would have applied to the chemical involved in the fire and explosion at this facility.
- Accident prevention is a top priority at EPA. This final rule retains all of the prevention provisions that have resulted in the long-term trend of fewer significant chemical accidents, which have declined more than 50% since the original requirements were put in place in 1999. The data demonstrate that the original RMP rule, which we are enhancing today, is effective at detecting, preventing, and mitigating accidental releases.
- From 2007-2016, at least 90% of RMP facilities had no reported accidents and nearly half of accidents occurred at less than 2% of facilities reporting multiple releases. These data support EPA's risk-based approach that emphasizes compliance and focuses attention on the outliers through its current National Compliance Initiative for Reducing Risks of Accidental Releases at Industrial and Chemical Facilities. EPA is prioritizing inspections and enforcement on high risk facilities and recently entered into the largest-ever settlement in the history of enforcing the RMP rule, valued at approximately \$150 million, in 2018. (Chevron)





EPA data mining and  
inspection/request for  
additional information

EPA compares data bases. For example: Tier II has NH3 reported over 10,000 lbs... but no RMP filed.

# EPA Listening Sessions - 2021

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- Two listening sessions held on June 16 and July 8, 2021 were a first step in considering improvements to the RMP rule, so that EPA can better address the impacts of climate change on facility safety and protect communities from chemical accidents, especially vulnerable and overburdened communities living near RMP facilities.

Feedback from Jun 16 session which may foreshadow issues likely to be addressed in future EPA proposal to revise RMP regulations:

- **Environmental Justice** – Address cumulative risks to fence line communities posed by RMP facilities in close geographic proximity to each other. EPA stated this would be a “critical feature” of future review.
- **Inherent Safety** – Require STAA to be conducted on new and existing processes as part of the PHA
- **Planning for Climate-Related Impacts** – incorporate planning for climate related extreme weather, sea level rise, etc. and incorporate mandated mitigation measures (i.e. backup power supplies).
- **Prescriptive v. Performance-Based Regulations** – Asking EPA to refrain from pursuing a prescriptive approach, noting the insufficient regulation is not the cause of chemical accidents. EPA should focus on targeted enforcement and compliance assistance for the small percentage of RMP facilities responsible for the majority of significant incidents in recent years.