EPA Preparedness Regulations



Colorado **Emergency Preparedness** Partnership

Preparedness through Partnership



Federal Regulations 101
October 2020





An hour with EPA!

- Emergency Planning and Community Right-to-Know Act (EPCRA)
- Risk Management Program (RMP)
- Oil Spills Prevention and Preparedness Regs
 - Spill Prevention, Control, and Countermeasure (SPCC)
 - Facility Response Plans
 - Gov't Initiated Unannounced Exercises



What is EPCRA about?

To help communities plan for emergencies involving accidental releases of hazardous substances.









Chemicals-

- What chemicals are in the community?
- What training and/or equipment does the community need for those chemicals?

Information-

- Industry provides chemical hazard information to SERC/LEPC/Fire Departments.
- LEPC can plan for chemical safety.

Local Communities-

 Everything is local. Response and planning to local hazards are all based on local partnerships





CERCLA 1980

"Superfund" Act

Superfund Amendment and Restoration Act 1986 "SARA"

SARA Title III EPCRA --Emergency Planning and Community Right to Know





Section 301

Section 302

Section 303

Section 304

Section 311

Section 312

Section 313

PUBLIC LAW 99-499-OCT. 17, 1986

100 STAT. 1613

Public Law 99-499 99th Congress

An Act

To extend and amend the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, and for other purposes.

Oct. 17, 1986 [H.R. 2005]

SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.

This Act may be cited as the "Superfund Amendments and Reauthorization Act of 1986".

Hazardous materials. Environmental protection. 42 USC 9601 note

Emergency Planning and Community Right-To-Know Act of 1986. 42 USC 11001

TITLE III—EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW

SEC. 300. SHORT TITLE: TABLE OF CONTENTS.

(a) SHORT TITLE.—This title may be cited as the "Emergency Planning and Community Right-To-Know Act of 1986" (b) TABLE OF CONTENTS.—The table of contents of this title is as

follows:

Sec. 300. Short title; table of contents.

Subtitle A-Emergency Planning and Notification

Sec. 301. Establishment of State commissions, planning districts, and local commit-

Sec. 302. Substances and facilities covered and notification.

Sec. 303. Comprehensive emergency response plans.

Sec. 304. Emergency notification.
Sec. 305. Emergency training and review of emergency systems.

Subtitle B-Reporting Requirements

Sec. 311. Material safety data sheets.



Section 301-Establishes SERC/TERC/LEPC

SERC main responsibilities:

- Appoint, supervise and coordinate LEPC activities (designate emergency planning districts).
- 2) Receive copies of Tier II reports and manage that information.
- 3) Review and approve emergency plans (developed by LEPCs).
- 4) Establish public info request procedures





Section 301-Establishes SERC/TERC/LEPC

LEPCs then established from SERC-designated emergency planning districts.

Membership should be a varied group and include:

- Elected state and local officials
- Police, fire, civil defense and public health professionals
- Reps from community groups and media
- Facility representatives
- Environmental, transportation and hospital officials





Section 301-Establishes SERC/TERC/LEPC

What is the role of the LEPC?

- Partnership formation with local governments and industries for hazmat planning.
- Analyze local hazards
- Develop and maintain Emergency Plan
- Assess response capabilities
- Conduct training and exercises.



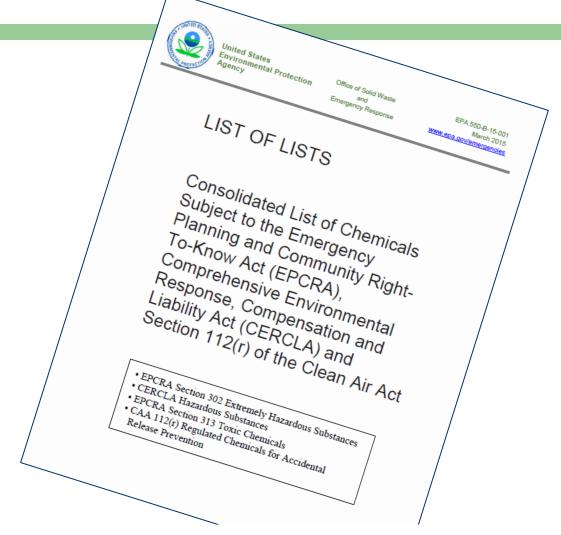
Section 302-Emergency Planning Notification

If a facility has an **EHS over the limit (TPQ)** in the List of Lists:

- facility must provide a written notification within 60 days to the SERC and LEPC.
- facility must then designate an emergency coordinator who can assist with development and implementation of a local emergency plan.







https://www.epa.gov/sites/production/files/2015-03/documents/list_of_lists.pdf

Section 302-Emergency Planning Notification

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 04 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Hexane	110-54-		I.Q	5,000	X		٠. ٧
n-Hexane	110-54-	8		5,000			
Hexazinone	51235-04-	2		,	313		
Hydramethylnon	67485-29-	ļ			313		
Hydrazine	302-01-	1,000	1	1	313	U133	15,000
Hydrazine, 1,2-diethyl-	1615-80-			10		U086	
Hydrazine, 1,1-dimethyl-	57-14-	1,000	10	10	X	U098	15,000
Hydrazine, 1,2-dimethyl-	540-73-	В		1		U099	
Hydrazine, 1,2-diphenyl-	122-66-	7		10	X	U109	
Hydrazine, methyl-	60-34-	500	10	10	X	P068	15,000
Hydrazine sulfate	10034-93-	2			313		
Hydrazobenzene	122-66-	7		10	X	U109	
Hydrochloric acid	7647-01-)		5,000			
Hydrochloric acid (conc 37% or greater)	7647-01-			5,000			15,000
Hydrochloric acid (aerosol forms only)	7647-01-			5,000	313		
Hydrocyanic acid	74-90-	100	10	10	X	P063	2,500
Hydrofluoric acid	7664-39-	100	100	100	X	U134	
Hydrofluoric acid (conc. 50% or greater)	7664-39-	100	100	100	Х	U134	1,000



Section 303- Emergency Planning

LEPCs need to:

- Develop an emergency response plan for the community.
- Develop procedures for public requests for info

→This section gives authority to LEPCs to request and obtain information from facilities relevant to emergency planning.



Section 303- Emergency Response Plan

- Identification of facilities and transportation routes of EHSs.
- Emergency response procedures, on and off site.
- Designation of a community coordinator and facility emergency coordinator(s) to implement the plan.
- Emergency notification procedures.





Section 303- Emergency response plan

- Description of how to determine the most likely affected area and population by releases.
- Describe local emergency equipment and facilities and the persons responsible for them.
- Outline an evacuation plan(s).
- Establish training programs for emergency responders (including schedules).





Section 304- Spill of an EHS

When release or spill occurs of an EHS over the Reportable Quantity (RQ) in the List of Lists, a facility must make immediate notifications.





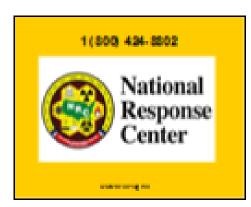
Section 304-EHS Spill Reporting

NAME	CAS/313	Section 302			Section		CAA
	Category Codes	(EHS) TPQ	304 EHS RQ	RQ	313	CODE	112(r) TQ
Hexane	110-54-3			5,000	X		
n-Hexane	110-54-3			5,000	313		
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	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	Х	U134	1,000



Section 304- SPILLS – Who to call

 National Response Center (800) 424-8802



LEPC and SERC immediately
 Also follow with written report (within 2 weeks)



Section 311/312 Chem Reporting and TIER II

If a facility stores an EHS at TPQ or 500 lbs (whichever is less)

-or-

A hazardous chemical (requiring an SDS) in an amount over 10,000 lbs.

- 311-1st time obtain chem in question submit SDSs w/in 90 days to SERC/LEPC/Local Fire Dept.
- 312-must submit Tier II report to the LEPC, SERC, and local fire dept annually.



Section 312- Tier II Reports

Do you need to submit a Tier II report?

Hazardous Chemical?

- Requires an SDS via OSHA?
- Over 10,000 pounds at any one time?

If Yes

Extremely Hazardous Substance?

- On the List of Lists?
- Over the TPQ or 500 pounds?
 ...whichever is less

If Yes

Tier II Report required

If Yes

Diesel or Gasoline?

- Retail?
- Underground storage tanks?
- Over 100,000 gallons of diesel?
- Over 75,000 gallons of gasoline?



Section 313-Toxics Release Inventory

TRI-is designed to give public access to information on presence, annual releases and waste management.

*A facility who manufactures, processes, uses or disposes for each qualifying chemical in the List of Lists to submit a 'Toxic Release Inventory' report (TRI).





What can be done on the local level?

PLAN AND PREPARE

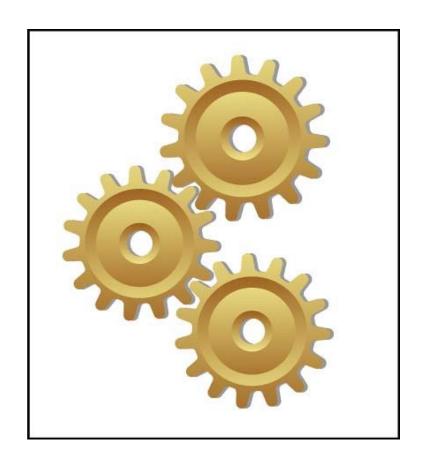
RESPOND EFFECTIVELY

PREVENT THE ACCIDENT





Risk Management Program (RMP)







Purpose of RMP:

- Prevent accidental releases of chemicals that can cause serious harm to the public or the environment from short-term exposures
- Mitigate the severity of releases that do occur
- Provide information on chemical risks to the public



Origins of RMP (CAA112r)

Congress passed Clean Air Act (CAA) Amendments of 1990→

- 1. Established General Duty Clause
- 2. Required EPA to regulate at least 100 substances known to cause death or serious adverse effects to human health or the environment
- 3. Required EPA to promulgate regulations & guidance to prevent, detect & respond to accidental releases of regulated substances
- 4. Regulations include submission of a risk management plan (RMP) to EPA



RMP- General Duty Clause

Owners and operators have a "general duty" to:

- Appropriately identify hazards with potential accidental release of extremely hazardous substance (EHS);
- Design and maintain a safe facility and attempt to prevent releases;
- Minimize consequence of accidental releases that do occur.

Not limited to specific list of chemicals or thresholds- any EHS/any amount



RMP- Risk Management Plans

- Covers facilities with one or more of the 140 regulated substances above threshold quantities
- Requires facilities to:
 - Implement an accident prevention program
 - Implement an emergency response program
 - Conduct a hazard assessment
 - Submit a summary report "RMP" to EPA
- RMPs available to government, limited public access



RMP- Substances Regulated

Final list:

- 77 toxics
- 63 flammables



Based on toxicity, ambient physical state,
 flammability, production volume and accident history

Threshold quantities established:

Toxics-various levels

Flammables- 10,000 lbs

Mixtures considered

Some substances with specified concentrations

EMERGENCY EN RESPONSE AND PROTECTION

RMP- Substances Regulated

Where can you find this? The List of Lists!

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	
Hexane	110-54-3			5,000	X		
n-Hexane	110-54-3			5,000	313		
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	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





- Owners and operators of a facility:
 - Must be a stationary source
 - With one or more regulated substances

Contained in a process

Above a threshold quantity





RMP definitions

- Stationary source: any structures/equipment located on one or more contiguous properties under the control of the same person(s) from which an accidental release may occur
- Process-any activity involving a regulated substance (use, storage, manufacturing, handling)
- Regulated substance: any substance listed in CAA 112(r)(3) in CFR 68.130
- Threshold quantity: quantity specified for a regulated substance present at a stationary source

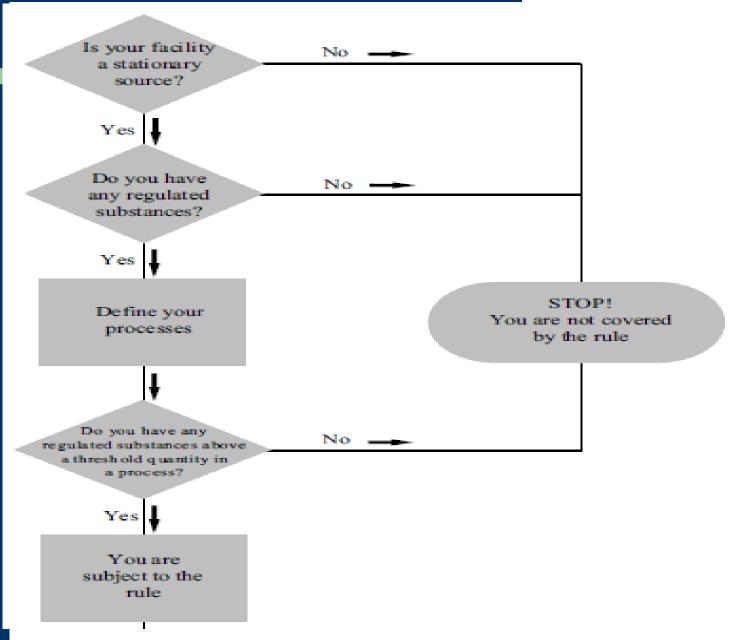


RMP Exemptions

- Transportation and storage incident to transportation
- Flammable substances used as fuel or held for retail sale
- Gas in distribution or storage as fuel
- Naturally occurring hydrocarbons prior to processing in refinery or plant
- Anhydrous ammonia held by farmers
- Activities in labs
- Outer continental shelf activities









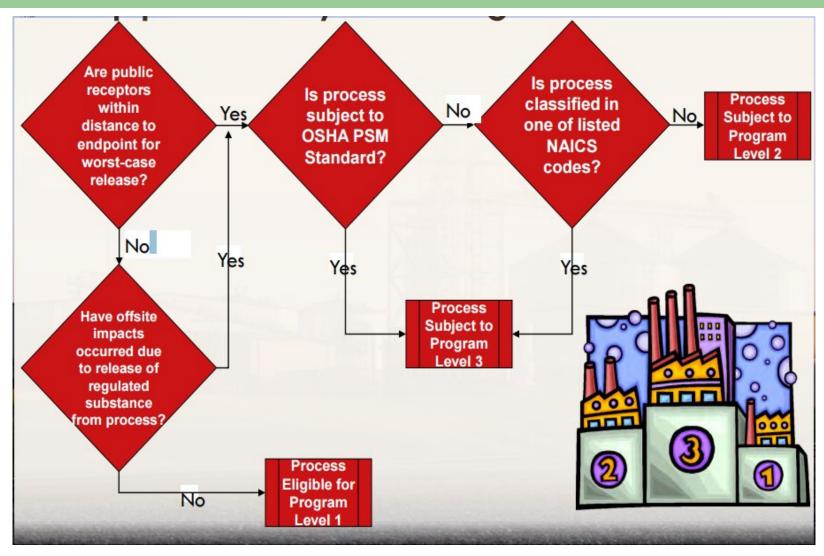
RMP Program Levels

Dependent on risk:

- Program 1
 - No public receptors in worst case scenario zone
 - No accidents w/offsite impacts in last 5 years
- Program 2
 - Facilities not in Program 1 or Program 3
- Program 3
 - Not eligible for Program 1
 - Already covered by OSHA PSM standard, or
 - Process in 1 of 10 specified NAICS codes

RMP Program Levels







RMP's- Owner/operator requirements

- 1. Conduct Hazard Assessment (P1, P2, P3)
- 2. Develop and Implement an Accident Prevention Program (P2, P3)
- 3. Implement Emergency Response Program (P2, P3)
- 4. Develop Management System (P2, P3)
- 5. Submit Risk Management Plan to EPA (P1, P2, P3)



1st Req- Hazard Assessment

- Five year accident history
 - Include all accidental releases of regulated substances from covered processes resulting in:
 - On site: deaths, injuries, or significant property damage
 - Off site: deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage
- Offsite consequence analysis
 - Identify worst-case release scenario
 - Alternative (more likely) release scenario (except Program 1)
 - Estimate offsite impacts

2nd Req- Prevention Program (Program 2)

- Safety Information
- Hazard Review
- Operating Procedures
- Training
- Maintenance
- Compliance Audits
- Incident Investigation



2nd Req- Prevention Program (Program 3)

- Process Safety Info
- Process Hazard Analysis
- Operating Procedures
- Training
- Mechanical Integrity
- Compliance Audits

- Incident Investigation
- Pre-Startup Review
- Management of Change
- Employee Participation
- Hot Work Permit
- Contractors

3rd Req- Emergency Response Program

- Non-responding facilities
 - Facility included in community emergency response plan
 - Emergency notification mechanisms in place
 - Annually coordinate response actions with local responders/LEPCs
 - Conduct annual notification drill (after 03/14/21)

*Program 1 should at least coordinate with local responders







3rd Req- Emergency Response Program

- Responding facilities
 - Implement emergency response program (response procedures, training, equipment, etc.)
 - ER plan coordinated with community ER plan
 - Annually coordinate response actions with local responders/LEPCs
 - Perform field & tabletop exercises and notification drills (after 03/14/21)







- Program 2 and Program 3 facilities
- Develop management system to implement RMP elements
- Designate qualified person or position with overall responsibility:
 - Development, Implementation, Integration
- Document names/positions and define lines of authority



5th Req- How do I submit my RMP?

- Submit electronically via RMP*eSubmit
 - Access through EPA's Central Data Exchange
 - For more information on registering, please see the RMP*eSubmit Users Manual:
 https://www.epa.gov/rmp/rmpesubmit-users-manual
 - CDX Help Desk 888-890-1995
 - Revised every 5 years or more frequently with changes

RMP Reporting Center is available-8:00 AM to 5:30 PM, Mon-Fri for questions on the RMP program.

703-227-7650 RMPRC@epacdx.net





Final December 2019

- Rescind accident prevention program provisions (third party audits, safer technology and alternatives analyses, incident investigation root cause analysis)
- Rescind most public information availability provisions to combat redundancy
- Modify emergency coordination and exercise provisions to address security concerns raised



EMERGENCY RESPONSE AND RESPONSE

RMP: More Information

- General information: http://www.epa.gov/rmp
- List of regulated substances: http://www.epa.gov/rmp/listregulated-substances-under-risk-management-plan-rmpprogram
- Guidance for facilities: http://www.epa.gov/rmp/guidancefacilities-risk-management-programs-rmp
- How to submit: http://www.epa.gov/rmp/how-submit-risk-management-plan-rmp-epa
- Training: http://www.epa.gov/rmp/risk-management-plan-rmp-webinars-and-training
- Hotline: 800-424-9346 (select option #6 from menu)





Oil Pollution Prevention Regulations



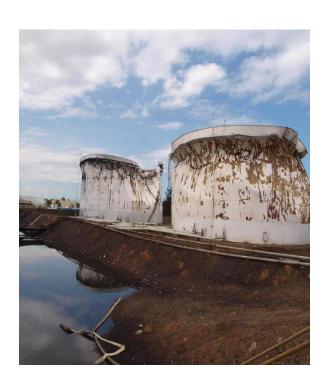


Oil Pollution Prevention Reg– 40 CFR 112

Spill Prevention Control and Countermeasure (SPCC) Rule:

Requirements to help prevent oil discharges from reaching navigable waters or adjoining shorelines.

- Authority from the Clean Water Act
- EPA implements Rule nationwide (under 40 CFR 112)
- Effective date January 1974





What is the SPCC Rule?

Requires certain facilities develop and implement a *site-specific SPCC Plan* to address:

- Containment and procedures to Prevent oil discharges;
- Proactive Control measures to keep an oil discharge from entering navigable waters of the U.S. or adjoining shorelines (containment); and
- Effective Countermeasures to contain, clean up, and mitigate any oil discharge that affects navigable waters of the U.S. or adjoining shorelines (spill response measures).





SPCC applies to non-transportation related facilities which:

- Stores, transfers, uses, or consumes oil or oil products (such as diesel fuel, gasoline, lube oil, hydraulic oil, adjuvant oil, crop oil, vegetable oil, or animal fat) and
- Stores more than <u>1,320</u> US gallons in aboveground containers; or store more than <u>42,000</u> US gallons in completely buried oil storage containers <u>and</u>
 - (Farms-Store more that <u>2,500</u> US gallons in aboveground containers)
- Could reasonably be expected to discharge oil to waters of the US or adjoining shorelines, such as interstate waters, intrastate lakes, rivers, and streams.







Expectation of Oil Discharge

What is a "Reasonable Expectation of an Oil Discharge"?

- Initial determination by the owner/operator based on geographical and location aspects of the production facility
- You may consider proximity to water, land contour, drainage
- Exclude manmade features, such as secondary containment dikes around tanks and impoundments, in determination

Keep in mind:

Oil floats
Adverse weather
Precipitation run off





Applicability

- Owner/operator makes the initial decision on applicability of SPCC regulations to the facility:
 - Does the facility meet the applicability criteria (volumes of oil, expectation to spill to waterway)?
- No requirement to submit SPCC Plan to EPA for approval.
- Plan is required upon inspection.
- Plans need to be updated every 5 years or sooner if changes are made to facility.



SPCC

Plan

SPCC Plan Requirements

SPCC regulations requires preparation and implementation of a written Plan to address:

- Operating procedures for routine handling of products to prevent a discharge of oil;
- Discharge or drainage control measures to prevent a discharge of oil;
- Countermeasures to contain, clean up, and mitigate an oil spill;
- Methods of disposal of recovered materials; and
- Contact list and phone numbers of company, contract response personnel, and National Response Center



SPCC Plan Help

SPCC Guidance for Regional Inspectors:

https://www.epa.gov/oil-spills-prevention-andpreparedness-regulations/spcc-guidance-regionalinspectors





Subpart D – Facility Response Plan

Facility Response Plan (FRP): Specifies requirements for preparedness and response to oil discharges (subset of SPCC).

FRP's are identified by either:

- Self-identification process
- Determination of the RA





FRP Requirements:

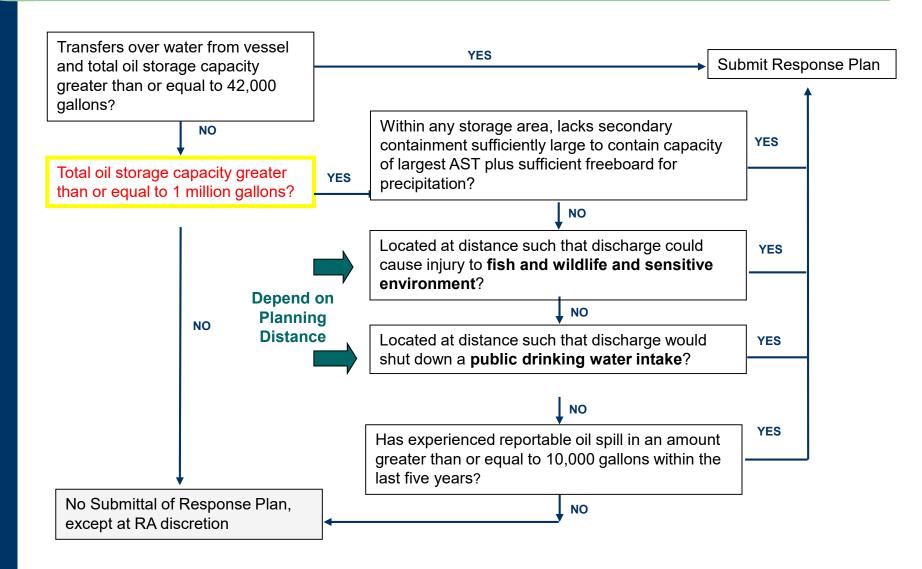
Owner/operator of a "substantial harm" facility must develop and implement an FRP:

What is substantial harm? A facility that could reasonably be expected to cause substantial harm to the environment by discharging oil into or in navigable waters.





Substantial Harm Criteria-FRP



FRP: Requirements



- 1. Emergency Response Action Plan (ERAP)
- 2. Facility information
- 3. Information about emergency response
- 4. Hazard evaluation
- 5. Response planning levels
- 6. Discharge detection systems
- 7. Plan implementation
- 8. Self-inspection, drills/exercises, & response training
- 9. Diagrams
- 10. Security systems
- 11. Response plan cover sheet





FRP Response Capability

- Demonstrate availability of response personnel and equipment necessary to respond within the specified times.
- Resources may be ensured by "contract or other approved means".
 - Written contractual agreement with OSRO
 - Written certification by the owner or operator that the necessary personnel and equipment are available to respond to a discharge within appropriate response times
 - Active membership in local or regional cooperative
 - Other arrangement approved by the RA upon request by the owner or operator



Vulnerability Analysis

- Addresses the potential effects of an oil spill (to human health, property, or the environment)
- Using <u>planning distance</u>, identify the following areas within the trajectory of a discharge and discuss the vulnerability of each:
 - Water intakes
 - School & medical facilities
 - Residential areas & businesses
 - Wetlands & other sensitive environments
 - Fish & wildlife areas
 - Lakes and streams

- Endangered flora & fauna
- Transportation routes
- Utilities
- Recreational parks (e.g. public parks)
- Other areas of economic importance



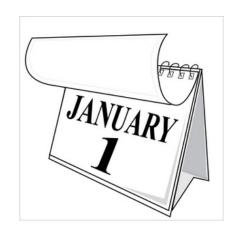




- Changes to the facility configuration that materially alters FPR info
- Change in the oil type at facility
- Changes to the OSRO
- Changes to discharge prevention, response equipment and/or response procedures.

→Within 60 days of change

Otherwise update every 5 years





Government-Initiated Unannounced Exercises

What to Expect during GIUE:

Discharge Scenario: 2,100 gallons in water





What to Expect during GIUE:

Containment boom (1000') and means to deploy it available at the facility within 1 hour of simulated drill.





GIUE performance evaluation criteria:

- Oil recovery devices/equipment and temporary storage available within 2 hours of discovery of the spill.
- Must have effective daily recovery capability equal to amount of oil released in a small discharge (i.e., 2,100 gallons).
- Deployed and ready to start oil recovery.
- Actual pumping of water is not required.
- Daily storage capacity equivalent to twice the effective daily recovery capacity (unless owner shows lower capacity is adequate. If unknown, then twice the volume of the spill or 4,200 gallons is required).





Satisfying the GIUE Requirements

- The Federal On-Scene Coordinator
 (OSC) will end the exercise when:
 - It has been determined that the simulated spill has been contained;
 - At the end of 4 hours; or
 - At anytime safety is an issue or the response appears to be ineffective.

A facility that satisfies the requirements of the exercise is not subject to another PREP GIUE for 36 months.





GIUEs under FRP Rule

Satisfying the Requirements:

A facility that does not satisfy the requirements of the exercise may be subject to another PREP GIUE at any time...



EPA may pursue an enforcement action for violations of the Oil Pollution Prevention regulations, including deficiencies observed during an exercise.

Penalties are assessed on a per day basis, it is in the facilities best interest to correct any observed noncompliance as quickly as possible!



GIUEs under FRP Rule

Objectives:

EPA and the Coast Guard view the GIUE program as a tool to help facilities determine response readiness and identify areas requiring improvement.

- Can facilities respond quickly and effectively to contain an oil spill?
- Conduct proper notification as detailed in the Facility Response Plan (FRP).
- Activate the facility's Spill Management Team and/or Oil Spill Removal Organization (OSRO).
- Mobilize adequate equipment to effectively respond to the incident.





Reporting of Oil Spills

Report all oil discharges to navigable waters of the U.S. or adjoining shorelines to NRC at 1-800-424-8802.

- NRC is the Federal government's centralized reporting center, which is staffed 24 hours a day by U.S. Coast Guard personnel.
- Any person in charge of a vessel or an onshore/offshore facility must notify NRC immediately after knowledge of the discharge.
- NRC relays information to EPA or U.S. Coast Guard depending on the location of the incident.

An On-Scene Coordinator evaluates the situation and decides if federal emergency response action is necessary.



SPCC & FRP: More Information

EPA's Oil Spill Regulations web page:

 https://www.epa.gov/oil-spills-prevention-and-preparednessregulations

EPA Emergency Management web pages

www.epa.gov/emergency-response

HOTLINE: Superfund, TRI, EPCRA, RMP, and Oil Information Center

- (800) 424-9346
- https://www.epa.gov/epcra/forms/contact-us-aboutemergency-planning-and-community-right-know-actepcra



SPCC & FRP Contacts:

Oil Program:

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Questions?

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