CalARP 101

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Session Code M-A1

Monday, March 24th

27th California Unified Program Annual Training Conference

March 24-27, 2025

Agenda

1. Introduction & Objectives
2. Process Safety History
3. Applicability
4. Risk Management Plan
5. Prevention Program Requirements
6. RAGAGEP
7. Emergency Response Program
8. Exemptions
9. Resources & Further Reading

27th California Unified Program Annual Training Conference

Below is an outline of training opportunities for the Unified Program Annual Training Conference ranked by level of expertise. This outline is being provided as a courtesy and CalEPA does not endorse any trainings provided by other entities or agencies.

BEGINNER

Monday, March 24, 2025

- 8:00am to 9:45am - CalARP 101
  Introduction to the California Accidental Release Prevention (CalARP) program.

- 3:00pm to 4:45pm - Safer Communities by Chemical Accident Prevention RMP Rule Update
  This course will discuss the new requirements in the Risk Management Program Safer Communities by Chemical Accident Prevention Final Rule. Topics will include details on new requirements for PHAs and Hazard Reviews, incident investigations, compliance audits, employee participation, emergency response program and the compliance dates of the updated elements for the RMP Rule.

Thursday, March 27, 2025

- 8:00am to 9:45am - CalARP Offsite Consequence Analysis
  Participants will gain an understanding of offsite consequence analysis requirements, common modeling tools and underlying methodology.

California Accidental Release Prevention (CalARP) Program

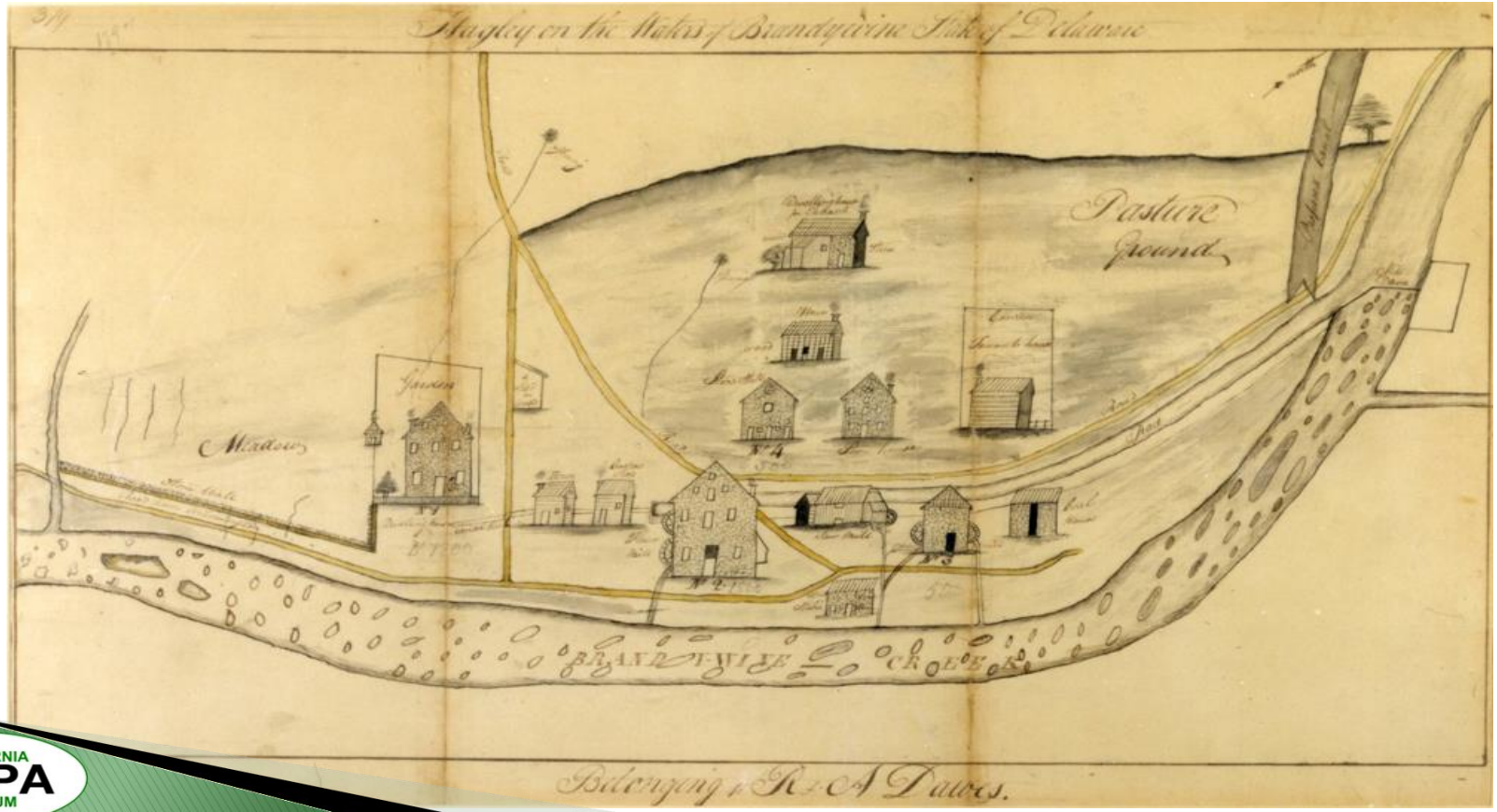
California State Law: California Health and Safety Code (HSC), Division 20, Chapter 6.95, Article 2

California State Regulations: California Code of Regulations Title 19 (19 CCR), Division 2, Chapter 4.5

Process Safety Beginnings

CALIFORNIA CUPA FORUM

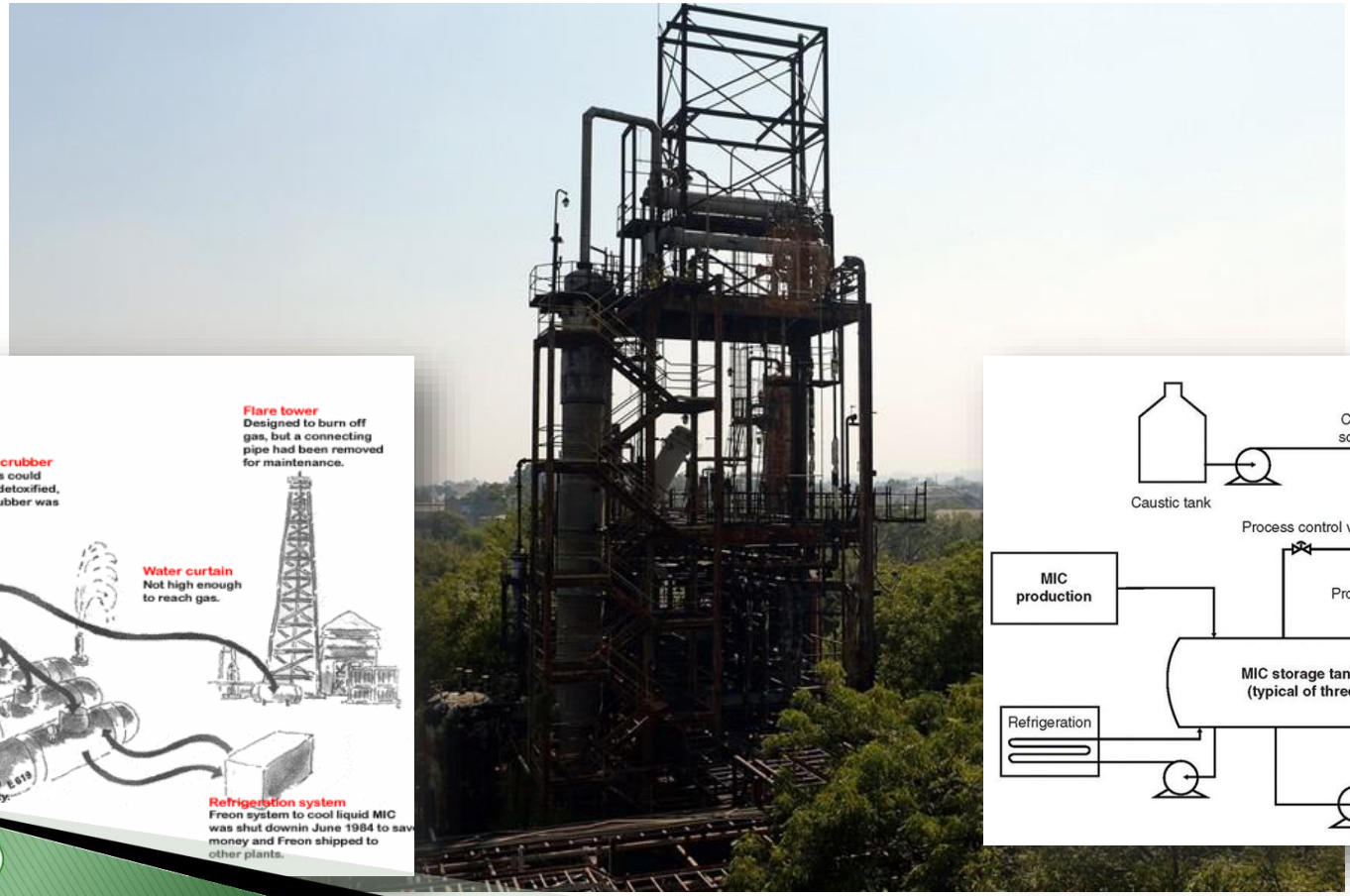
Process Safety Beginnings



Landmark Industrial Accidents

- Bhopal (1984)
- Chernobyl (1986)
- Piper Alpha (1988)
- Phillips 66 (1989)
- Exxon Valdez (1989)

Landmark Industrial Accidents – Bhopal (1984)



Landmark Industrial Accidents

Process Safety Regulation Rule Making

- 1992 OSHA PSM: OSHA Process Safety Management of highly hazardous chemicals (29 CFR 1910.119)
- 1996 EPA RMP: Federal Risk Management Program (Clean Air Act Section 112(r)/40 CFR Part 68)
- 1997 CalARP: California Accidental Release Prevention Program (Title 19, Division 5, Chapter 2)

CalARP, RMP, and PSM Regulations

	CalARP - CalEPA	RMP - USEPA	PSM - OSHA	PSM – Cal/OSHA
Goal	Protect the **public and environment** from the accidental release of hazardous substances.	Protect the **public and environment** from the accidental release of hazardous substances.	Protect **employees** from the accidental release of hazardous substances.	Protect **employees** from the accidental release of hazardous substances.
Regulation	California Code of Regulations Title 19 (19 CCR), Division 5, Chapter 2	Code of Federal Regulations Title 40 (40 CFR) Part 68	Code of Federal Regulations Title 29 (29 CFR) Section 1910.119	California Code of Regulations Title 8 (8 CCR) Section 5189 and 5189.1
Applies to	The owner or operator of a stationary source.	The owner or operator of a stationary source.	Employers	Employers

Common Regulated Industries

Industry Type	Examples of Potential Regulated Substances
Cold Storage Facilities	Ammonia
Water and Sewage Treatment Plants	Chlorine, Sulfur Dioxide, Methane
Power Plants	Ammonia
Plating Shops	Cyanides
Chemical Warehousing	Various
Chemical Manufacturing	Various

CALIFORNIA CUPA FORUM

Tues 10:00-11:45	Tu-A2 SYSTEM BASED CALARP INSPECTION (Alvin Lal, Stanislaus County CUPA)

Applicability

CalARP requirements apply to the ***owner or operator*** of a ***stationary source*** with more than a ***threshold quantity*** of a ***regulated substance*** in a ***process***.

Reference: 19 CCR Section 5050.4

Applicability-Definitions

- "**Stationary source**" is defined in 19 CCR Section 5050.3(rrr)
- "**Process**" is defined in 19 CCR Section 5050.3(xx)
- "**Owner or operator**" is defined in 19 CCR Section 5050.3(tt) as any person who owns, leases, operates, controls, or supervises a stationary source.
- "**Regulated substance**" (RS) is defined in 19 CCR Section 5050.3(kkk) and means any substance, unless otherwise indicated, listed in 19 CCR Section 5130.6.
- "**Threshold quantity"** (TQ) is defined in 19 CCR Section 5050.3(ttt) and means the quantity specified for a regulated substance pursuant to Section 5130.6 and determined to be present at a stationary source as specified in Section 5130.2.

Applicability-Definitions

(xx) "**Process**" means **any activity involving a regulated substance** including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities.
For the purposes of this definition, **any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process**. This definition shall not apply to Article 7.

(p) "**Covered process**" means a process that has a regulated substance present in more than a threshold quantity as determined under Section 5130.2 of this chapter.

Applicability

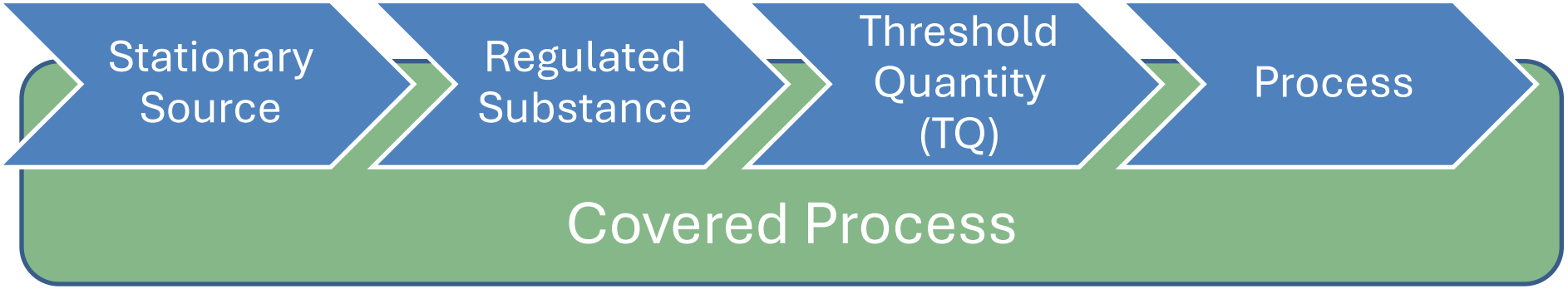
"**Regulated substance**" means any substance, unless otherwise indicated, listed in 19 CCR Chapter 4.5, Article 9, Section 5130.6.

Chemical Name	CAS Number	Table 1 TQ (lbs)	Table 2 TQ (lbs)	Table 3 TQ (lbs)
Ammonia (anhydrous)	7664-41-7	**10,000**		**500**
Ammonia (conc 1% or greater)	7664-41-7			**500**
Ammonia (conc 20% or greater)	7664-41-7	**20,000**		**500**
Chlorine	7782-50-5	**2,500**		**100**
Isopentane [Butane, 2-methyl-]	78-78-4		**10,000**	
Nitric acid (conc 80% or greater)	7697-37-2	**15,000**		
Nitric acid (conc 1% or greater)	7697-37-2			**1,000**
Nitrogen dioxide	10102-44-0			**100**

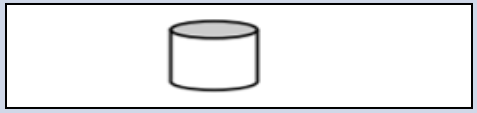
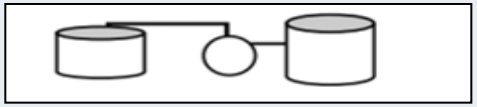
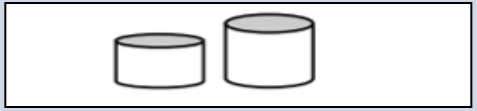
Applicability

TABLE 1 & 2	TABLE 3
• Federal Regulated Substance Lists	• State Regulated Substance List (276)
• Table 1: Toxics (77)	• Lower Threshold Quantities
• Table 2: Flammables (63)	• Adds more Regulated Substances to the list
• Higher Threshold Quantities	

Applicability



Applicability – Number of Processes

Schematic Representation	Description	Interpretation – # of processes?
	1 vessel. 1 RS above TQ.	1 Process
	2 or more connected vessels. Different RS, each above TQ.	1 Process
	2 or more co-located vessels. Same substance. Total above TQ.	1 Process
	2 vessels located so they won't be involved in a single release. Same or difference substances, each above TQ.	2 Processes

Applicability – Threshold Determination

- A threshold quantity of a regulated substance is present at a stationary source if the total quantity of a regulated substance contained in a process exceeds the threshold listed in 19 CCR Section 5130.6.

- When determining whether more than a threshold quantity of a regulated substance is present, the conditions in 19 CCR Section 5130.2 apply.

Reference: 19 CCR Section 5130.2

Threshold Determination - Toxics

- Count regulated toxic substances in a mixture when:
  - Greater than 1% RS in mixture by weight.
    - Only count the weight of the regulated substance in the mixture, not the entire weight of the mixture.

Reference: 19 CCR Section 5130.2(b)(1)

Threshold Determination – Toxics (Continued)

- Do not count toxic substances in a mixture when:
  - Less than 1% RS in mixture by weight; or,
    - If under the handling or storage conditions the regulated substance in the mixture (solution) can be demonstrated to have a partial pressure less than 10 millimeters of mercury (mm Hg).
    - 10 mm Hg ~ 1.33 kPa

Reference: 19 CCR Section 5130.2(b)(1)

Threshold Determination - Toxics

Example (1):

A system contains refrigeration grade (>99.95% pure) ammonia and has a maximum intended inventory equivalent to 75% of the 700-gal high-pressure receiver.

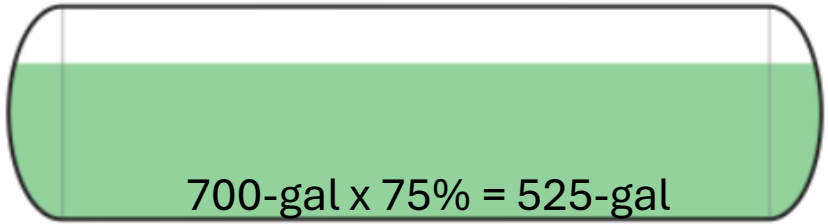
What is the threshold quantity in lbs?

[volume] x [density] x [concentration] = total lbs

525-gal x 5.15-lbs/gal x 100% = 2,704-lbs

Does the CalARP Program apply?

500-lbsTQ exceeded → Yes



Filled Volume (Max. Inventory)	**525-gal**
Total Volume (Capacity)	**700-gal**

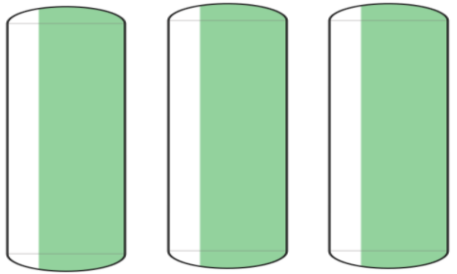
Chemical Name	CAS Number	Density (lbs/gal)	Table 3 TQ (lbs)
Ammonia	7664-41-7	5.15	500

Threshold Determination - Toxics

Example (2):

A process of three co-located 3,000-gal tanks of 53% nitric acid and water solution.

Individual Volume	**3,000-gal**
Total Volume	**9,000-gal**



What is the threshold quantity in lbs?

[volume] x [density] x [concentration] = total lbs

9,000-gal x 12-lbs/gal x 53% = 57,240-lbs

Does the CalARP Program apply?

1,000-lbs TQ exceeded → No, because the partial pressure is below 10-mmHg

SDS	Chemical Name	CAS #	Density (lbs/gal)	Vapor pressure at 20 °C (mmHg)	Table 3 TQ (lbs)
	Nitric Acid (53%)	7697-37-2	12	6.7-7.99	1,000

Threshold Determination - Flammables

- Count regulated flammable substances in a mixture when:
  - Greater than 1% RS in mixture by weight;
  - Count entire weight of a mixture as NFPA flammability of 4.

- Do not count regulated flammable substances in a mixture when:
  - Less than 1% RS in mixture by weight;
  - As gasoline in distribution or related storage for use as fuel for internal combustion engines; or,
  - In naturally occurring hydrocarbon mixtures prior to entry into a natural gas processing plant or a petroleum refining process unit.

Reference: 19 CCR Section 5130.2(b)(2)

Program Level Overview

- The CalARP program has distinct program levels that relate to the accident potential at a facility.

- There are four program levels with increasing requirements depending upon the complexity, accident history, and potential offsite impact of a release.

Reference: 19 CCR Section 5050.4

Program Level 1

A process is eligible for Program Level 1 if ***all*** of the following apply:

- There have been no accidental releases for the past 5-years
- Public receptors are not affected by the worst-case release scenario
- Emergency response procedures have been coordinated between the stationary source and local emergency planning and response organizations.

Program 1	Program 2	Program 3	Program 4
Executive Summary	Executive Summary	Executive Summary	Executive Summary
Worst-Case Release Scenario	Worst-Case Release Scenario	Worst-Case Release Scenario	Worst-Case Release Scenario
5 year accident history	5 year accident history	5 year accident history	5 year accident history
Coordination with local emergency services (fire dept)	Develop a Program and Coordination with local emergency services (fire dept)	Develop a Program and Coordination with local emergency services (fire dept)	Develop a Program and Coordination with local emergency services (fire dept)
	Safety Information	**Process Safety Information**	Process Safety Information
	Operating Procedures	**Operating Procedures**	Operating Procedures
	Training	**Training**	Training
	Maintenance	**Mechanical Integrity**	Mechanical Integrity
	Incident Investigation	**Incident Investigation**	Incident Investigation
	Hazard Review	**Process Hazard Analysis**	Process Hazard Analysis
	Compliance Audits	**Compliance Audits**	Compliance Audits
		Employee Participation	Employee Participation
		Contractors	Contractors
		Hot Work Permit	Hot Work Permit
		Management of Change	Management of Change
		Pre-Startup Safety Review	Pre-Startup Safety Review
			Safeguard Protection Analysis
			Process Safety Culture Assessment
			Hierarchy of Hazard Control Analysis
			Human Factors Program
			Accidental Release Prevention Program Management System
			Access to documents and Information

Program Level 3

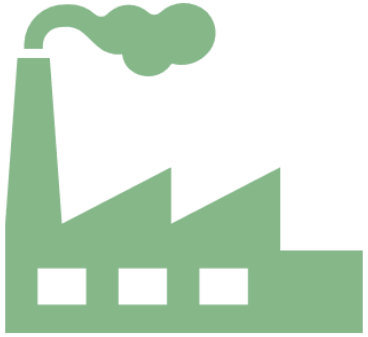
A process is subject to Program 3 if it does not meet the Program 1 eligibility requirements and if ***any*** of the following conditions apply:

- The process is in any of the NAICS codes listed in 19 CCR Section 5050.4(e)(1)
- The process is subject to the Cal OSHA process safety management standards of Section 5189 of Title 8 of CCR
- The UPA determines the accident risk posed requires the additional safety measures afforded by Program 3 requirements.

Program Level 2

A covered process is subject to Program 2 requirements if it does not meet the eligibility requirements for Program 1, 3, or 4.

Program Level 4

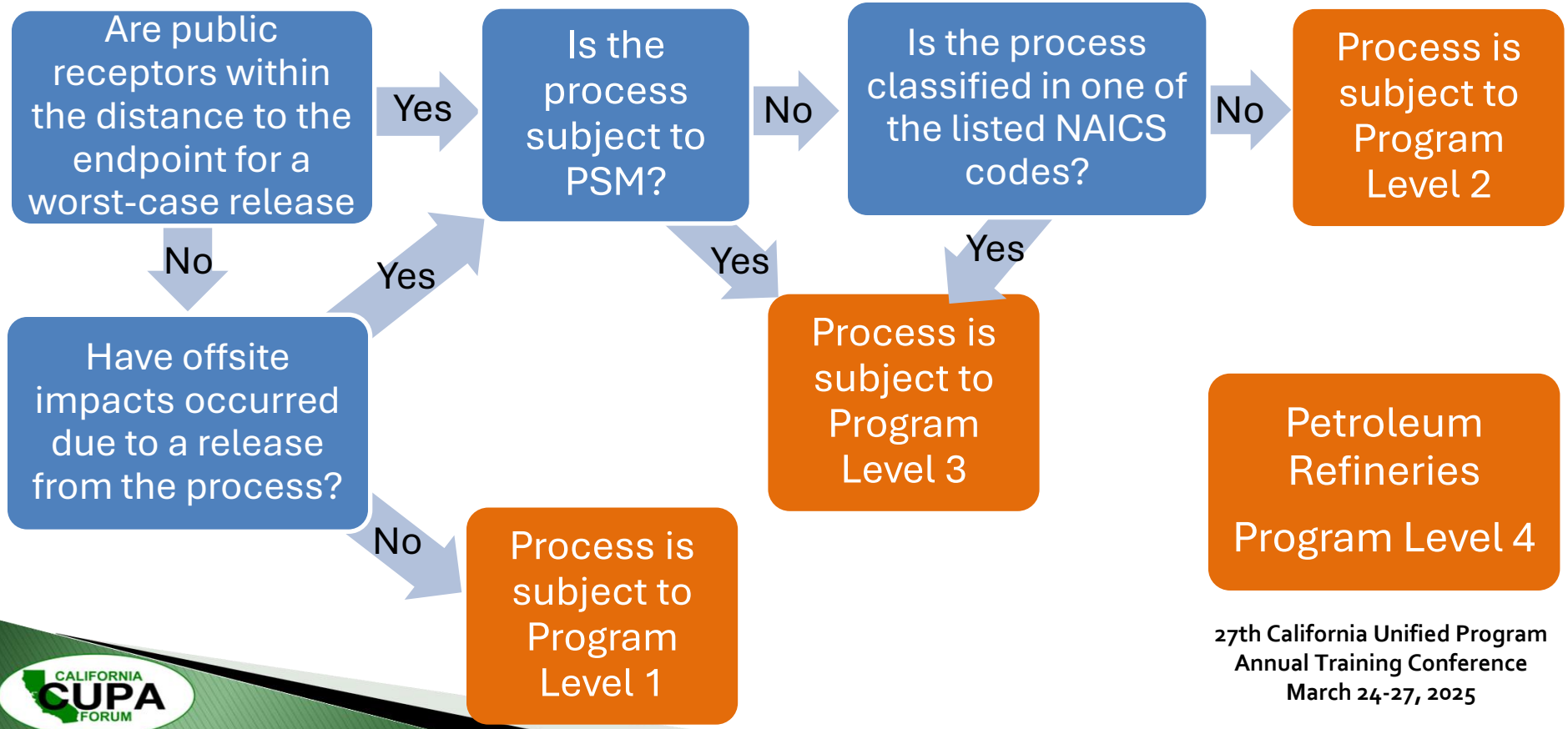


- Program 4 applies specifically to petroleum refineries (NAICS code 324110).

- Program 4 covers all processes within the refinery.
  - The definition of “process” for purposes of program 4 is more expansive than the definition that applies to Programs 1 through 3.

19 CCR Section 5050.3(yy)

Program Level Flow Chart




Pause

Risk Management Plan (RMP) Submittal

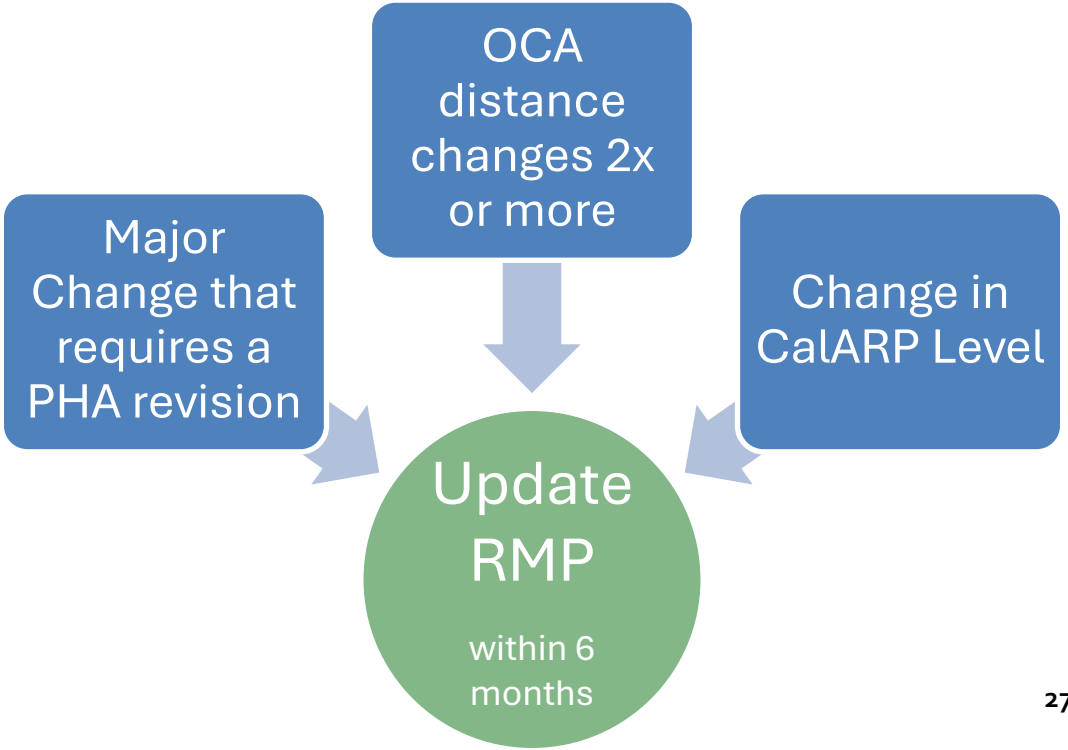
All CalARP Program Levels must submit a RMP

- Registration
- Executive Summary
- Offsite Consequence Analysis
- 5 Year Accident History
- Emergency Response Program
- Certification
- Hazard Assessment
- CalARP Level Specific Data (except Level 1)

RMP Submission

- At least every 5 years
- Before the addition of a new process
- Before the date a substance is in a process

RMP Update


OCA distance changes 2x or more
Major Change that requires a PHA revision
Change in CalARP Level
Update RMP
within 6 months


Hazard Assessment
• 5-year Accident History
• Worst-case Release Scenario
• Alternative Release Scenario
• Offsite Consequence Analysis

Hazard Assessment Definitions

- "**Worst-case release**" means the release of the **largest quantity of a regulated substance from a vessel or process** line failure that results in the greatest distance to an endpoint defined in Section 5080.2(a) of this chapter.

- "**Offsite**" means areas **beyond the property boundary** of the stationary source, and areas within the property boundary to which the **public has routine and unrestricted access** during or outside business hours

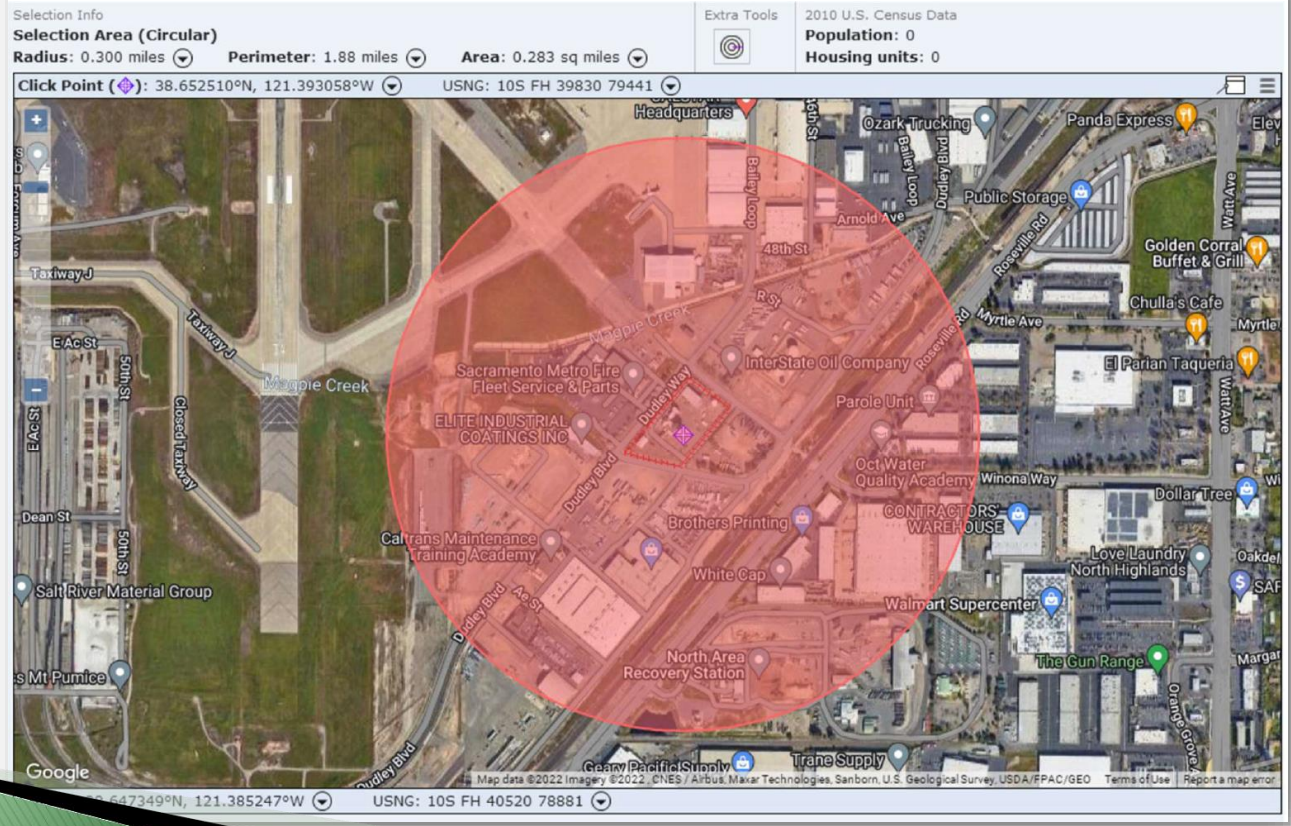
Hazard Assessment – Toxic Endpoints

Toxic endpoints listed in Appendix A

CAS Number	Chemical Name	Endpoint (mg/l)
7664-41-7	Ammonia	0.14
7782-50-5	Chlorine	0.0087
79-21-0	Peracetic Acid	0.0045
7446-09-5	Sulfur Dioxide	0.0078

Hazard Assessment – Model

Figure 1. MARPLOT – Worst-case Ammonia Release Scenario



Hazard Assessment – Alternative Release Scenario

Except CalARP Level 1, one alternative release is required for each regulated substance in a process.

- Alternative release should be:
- More likely to occur than worst-case; and,
- Reach an offsite endpoint and public receptor, unless no scenario exists.
- Select a scenario that was in five-year accident history, industry accidents/incidents or scenarios covered in a hazard review or PHA.

Reference: 19 CCR Section 5080.4

Hazard Assessment – Offsite Impacts

Public Receptors

- Offsite residences
- Schools
- Hospitals
- Parks and recreation areas
- Industrial, commercial, office and industrial buildings

Environmental Receptors

- National or state parks, forests, or monuments;
- Officially designated wildlife sanctuaries, preserves or refuges; and,
- Federal wilderness areas.

USGS maps can be used to identify environmental receptors.

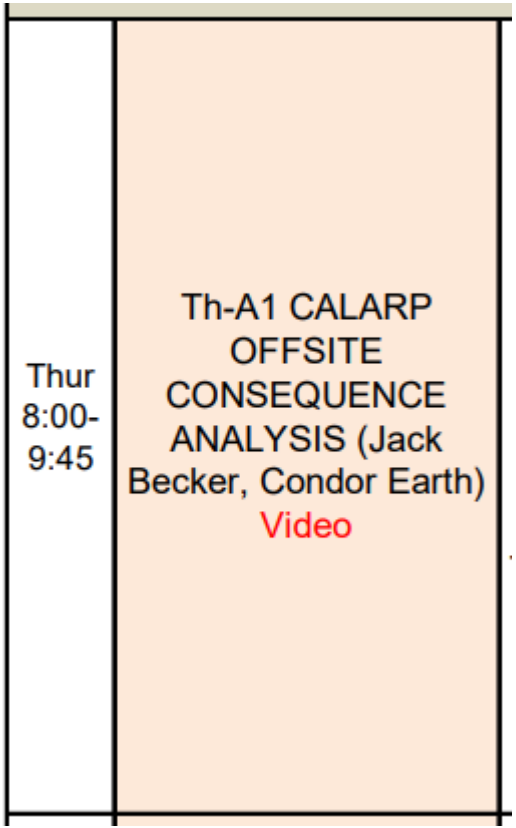
References: 19 CCR Section 5050.3(u) & 19 CCR Section 5050.3(fff)

Hazard Assessment – Five-Year Accident History

- Release resulted in deaths, injuries, or significant property damage on site, or
- Known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage
- Releases from a process that qualify for 5-year accident history disqualify a process from CalARP Level 1 designation.

Reference: 19 CCR Section 5080.9

Hazard Assessment



RMP Review Process

- RMP Completeness Review by UPA
  - If deficiencies are noted, facility has 60 days to correct and resubmit the RMP
- RMP posted for public review
  - RMP made available for 45-day comment period
- RMP Evaluation Review (i.e. Technical Review)
  - Up to 36 months to review the RMP for technical deficiencies

Prevention Program

CalARP Program Level 2 vs Level 3

Program Level 2 Requirements
Safety Information – Section 5090.1
Hazard Review – Section 5090.2
Operating Procedures – Section 5090.3
Training – Section 5090.4
Maintenance – Section 5090.5
Compliance Audits – Section 5090.6
Incident Investigation – Section 5090.7

Program Level 3 Requirements
Process Safety Information – Section 5100.1
Process Hazard Analysis (PHA) – Section 5100.2
Operating Procedures – Section 5100.3
Training – Section 5100.4
Mechanical Integrity – Section 5100.5
Compliance Audits – Section 5100.8
Incident Investigation – Section 5100.9
Management of Change (MOC) – Section 5100.6
Pre-Startup Safety Review (PSSR) – Section 5100.7
Employee Participation – Section 5100.10
Hot Work Permit – Section 5100.11
Contractors – Section 5100.12

Safety Information (P2)/ Process Safety Information (P3)

- Safety information related to the regulated substances, processes, and equipment must be compiled and maintained.

- The process must be designed in compliance with recognized and generally accepted good engineering practices (RAGAGEP).

Reference: 19 CCR Section 5090.1 and 19 CCR Section 5100.1

Hazard Review (P2) / Process Hazard Analysis (P3)

- Identify, evaluate, and control the hazards involved in the process using a methodology agreed upon with the UPA as best suited for the process.
- Includes consideration of applicable external events (earthquakes, floods, fires, etc)
- Must be updated and revalidated at least once every 5-years

Reference: 19 CCR Section 5090.2 and 19 CCR Section 5100.2

Hazard Review (P2) / Process Hazard Analysis (P3)

Wed 3:00-4:45	W-A4 3:00pm - 3:50pm LIFE CYCLE OF A RECOMMENDATION (Ryan Bray, Risk Management Profressionals; Manon Maschue, San Diego County CUPA)

Operating Procedures (P2/P3)

- Written operating procedures that provide clear instructions for safely conducting activities consistent with the process safety information.

- Operating procedures must include steps for each operating phase:
  - Initial startup
  - Normal operations
  - Temporary operations
  - Emergency shutdown and operations
  - Normal shutdown
  - Startup following a turnaround or emergency shutdown
  - Consequences of deviation
  - Equipment inspections

Reference: 19 CCR Section 5090.3 and 19 CCR Section 5100.3

Training (P2/P3)

- Employees who operate a process must be trained.
  - Initial training:
  - Overview of the process;
  - Operating procedures;
  - Emphasize hazards, emergency operations, and safe work practices applicable to employee's job task

- Refresher training (every 3 years or when necessary):
  - Assure understanding and adhere to operating procedures.
  - Consult with employees on refresher training frequency

Reference: 19 CCR Section 5090.4 and 19 CCR Section 5100.4

Training (P2/P3) Continued

- Training documentation must include the:
  - Identity of the employee
  - Date of training

- Means used to verify that the employee understood the training (P3 requirement)

Reference: 19 CCR Section 5090.4 and 19 CCR Section 5100.4

Maintenance (P2)

Written procedures to maintain the ongoing mechanical integrity of process equipment

- Inspection and testing must follow RAGAGEP
- Frequency of inspections and tests of process equipment must follow manufacturers recommendations, industry standards or codes

Reference: 19 CCR Section 5090.5

Mechanical Integrity (P3)

- Equipment deficiencies (outside process safety information limits)
  - Must be addressed before further use or taken out of service when safe to do so
  - Document actions taken to correct deficiencies before further use of equipment

- Quality assurance of equipment process application:
  - Assure new equipment is suitable for process application
  - Perform checks and inspections to assure equipment is installed properly and consistent with manufacturer's instructions
  - Assure spare parts and equipment are suitable for process application

Reference: 19 CCR Section 5090.5

Mechanical Integrity (P3)

Documentation on inspections and test must include:

- Date
- Name of person
- Equipment ID
- Description of inspection or test
- Results of the inspection or test

Reference: 19 CCR Section 5090.5

Maintenance (P2) / Mechanical Integrity (P3)

Mon 1:00-2:45	M-A2 1:00pm - 2:30pm IIAR STANDARDS AND GUIDELINES FOR AMMONIA AND CO2 REFRIGERATION (Eric Smith, IIAR) Video

Compliance Audits (P2/P3)

- Owner/operators are required to evaluate compliance at least every 3 years to verify procedures and practices are adequate and followed.
- Must be conducted by at least one person knowledgeable in the process and develop a report of the scope, methods, results and findings of the audit.
- Recommendations are required to be completed within 1.5 years
- Document response to compliance audit recommendations:
  - Actions taken to address recommendations
  - Actual completion dates
- Retain the two most recent audits

Reference: 19 CCR Section 5090.6 and 19 CCR Section 5100.8

Incident Investigation (P2/P3)

- An incident investigation must be **initiated within 48 hours** of a release or potential catastrophic release. Requires a team knowledgeable in the process and with experience to analyze the incident.

- Investigation report must include:
  - The date the investigation began
  - Description of the incident including five-year accident including data from 5080.9(b)
  - List of recommendations or findings

Reference: 19 CCR Section 5090.7 and 19 CCR Section 5100.9

Incident Investigation (P2/P3) Continued

- Owner/operators shall enter into agreement with the UPA on a timetable for resolutions or recommendations must be completed within 1.5 years of the investigation report or 2 years from date of incident, whichever is the earlier date.
  - Document the actual completion dates of recommendations.
  - Retain incident investigation reports for five years.

Reference: 19 CCR Section 5090.7 and 19 CCR Section 5100.9

Management of Change (MOC) (P3)

Written procedures to manage changes other than “replacements in kind” that affect the process. MOCs must address the following prior to any change:

- –Impact on health and safety
- –Technical basis
- –Modifications to and/or development of new operating and maintenance procedures
- –Necessary time period for change
- –Authorization requirements for the proposed change
- – Employees and contractors whose job tasks will be affected must be informed of changes and trained prior to start up
- –Process Safety Information may need to be updated accordingly

Reference: 19 CCR Section 5100.6

Pre-Startup Safety Review (PSSR) (P3)

PSSR is required for new stationary sources and when modification requires a change process safety information changes. Prior to introduction of substance or startup of process verify:

- Construction and equipment is in accordance to design specifications
- Safety, operating, maintenance, emergency procedures are in place and adequate
- Training for each employee operating the process has been completed
- New stationary sources must perform a PHA with all recommendations resolved

Reference: 19 CCR Section 5100.7

PSSR

Wed 1:00-2:45	W-A3 THE PRE-STARTUP SAFETY REVIEW (PSSR) - WHAT YOU NEED TO KNOW (Jeffrey Geiger, Contra Costa County CUPA) Video

Employee Participation (P3)

Developed a written plan of action regarding the implementation of employee participation of CalARP elements. The written plan should include:

- Employee input
- Dissemination of information back to employees
- Consult with employees on the conduct and development of PHA and other CalARP elements
- Provide employees access to PHAs and other information required to be developed under CalARP

Reference: 19 CCR Section 5100.10

Hot Work (P3)/Contractors (P3)

Hot Work

- Hot work permit procedure to prevent injury or loss to property while ensuring safe work conditions during welding, cutting, brazing, and grinding operations.

Contractors

- Facility employer and Contract Employer must cooperate to ensure all employees and contractors have the necessary information and training to perform work safely.
- Applies to work conducted by contractors on or adjacent to a covered process.

Reference: 19 CCR Section 5100.11 and 19 CCR Section 5100.12

Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)

ICC INTERNATIONAL CODE COUNCIL

NFPA®

CGA Compressed Gas Association
The Standard For Safety Since 1913

ANSI

iar International Institute of Ammonia Refrigeration

THE CHLORINE INSTITUTE

API American Petroleum Institute

ASME American Society of Mechanical Engineers

Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)

- Standardized best practices and minimum criteria for:
  - Design
  - Installation
  - Startup
  - Inspection, Testing, and Maintenance (ITM)

- Four types of RAGAGEP:
  - Widely adopted codes – e.g. NFPA
  - Consensus Documents – e.g. ASME, IIAR
  - Non-consensus Documents – e.g. Chlorine Institute
  - Internal Standards

Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)

Tues 1:00-2:45	Tu-A3 IIAR PUBLICATIONS AS RAGAGEP FOR AMMONIA REFRIGERATION SYSTEMS (Thomas Rios, Resource Compliance; Alvin Lal, Stanislaus County CUPA)

Emergency Response Program

- All Program Levels - include in the RMP the ER information specified in 19 CCR Section 5070.9.

- Program Levels 2 and 3 - comply with the ER requirements in 19 CCR Section 5120.2, unless all of the following conditions are met:
  - Employees will not respond to accidental releases of regulated substances;
  - The owner or operator has documented that response actions have been coordinated with the local fire department and hazardous materials response agencies; and
  - Appropriate mechanisms and written procedures are in place to notify emergency responders when there is a need for a response.

- Program Level 4- comply with the ER requirements in 19 CCR Section 5120.2

Emergency Response Program

The emergency response program must include the following:

- An emergency response plan, maintained at the stationary source, containing at minimum the following:
  - Procedures for informing and interfacing with the public and local emergency response agencies about accidental releases, emergency planning, and emergency response;
  - Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures; and,
  - Procedures and measures for emergency response after an accidental release of a regulated substance;
- Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance;
- Training for all employees in relevant procedures and relevant aspects of the Incident Command System; and,
- Procedures to review and update, as appropriate, the emergency response plan to reflect changes at the stationary source and ensure that employees are informed of changes.

Reference: 19 CCR Section 5120.2

Release Reporting

Spill Release Reporting
HAZMAT SPILL NOTIFICATIONS CALL THE STATE WARNING CENTER 1-800-852-7550

In California, any significant release or threatened release of a hazardous material requires immediate reporting by the responsible person to the Cal OES State Warning Center (800) 852-7550, and either the Unified Program Agency (UPA) or 911. The UPA may designate a call to 911 as meeting the requirement to call them.

Release Reporting

RELEASE REPORTING REQUIREMENTS MATRIX

AIR INCIDENTS

TYPES OF RELEASES	AMOUNT	WHO REPORTS?	TO WHOM	WHEN	LEGAL AUTHORITY
Stationary Sources	Any release that poses a significant hazard. Exceeds emission standards	Operator of the source	Cal OES Air Pollution Control District's (APCD) or Air Quality Management District's (AQMD)	Immediately upon knowledge of a release. Within 96 hours	HSC 25510 HSC 42706
	A threat of an air contaminant within 1000 feet of a school.	Air Pollution Control Officer	CUPA, Local Fire Dept	Within 24 hours	HSC 42301.7

Reference: [CalOES Release Reporting Matrix]

Exemptions/Exclusions/5130.4/5130.5

- Agricultural nutrients – Ammonia, when used as an agricultural nutrient
- Flammable Substances (Table 2) – when used as a fuel or held for sale as fuel at a retail facility

CalARP 101 Review

- Purpose and Scope
- Definitions
- Applicability and Exemptions
- General Requirements
- Registration and Submission
- Hazard Assessment
- Prevention Program Requirements
- Emergency Response Program

CalARP 201

Tues 8:00-9:45	Tu-A1 CALARP 201 (Uriah Donaldson, Resource Compliance; Chad San Juan, Kern County CUPA)

Resources & Further Reading

- EPA RMP eSubmit: https://www.epa.gov/rmp/rmpesubmit
- EPA RMP Guidance: https://www.epa.gov/rmp/risk-management-program-guidance-and-fact-sheets
- Seismic Assessment Guidance: https://hazmat.sccgov.org/sites/g/files/exjcpb471/files/report/SGD%20LEPC%20I%20Approved%2008%2007%202019.pdf
- Contra Costa Health Guidance Docs: https://www.cchealth.org/health-and-safety-information/hazmat-programs/california-accidental-release-prevention-calarp-program/calarp-program-guidance-document
- San Diego Threshold Determination Guidance: https://www.sandiegocounty.gov/content/dam/sdc/deh/hmd/pdf/hm-9181%20(02-11).pdf
- IIAR Government Portal: https://www.iiar.org/IIAR/IIAR/Government_Agency/Government_Portal.aspx
- Resource Compliance Blog & Youtube: https://www.youtube.com/@resourcecompliance7275
- Chemical Safety Board (CSB) Youtube: https://www.youtube.com/@USCSB
- AIChE books: https://www.aiche.org/publications/books
- CalARP Technical Advisory Group: Reach out to Daniel Abellon to join
- RAGAGEP
  - OSHA Interpretation (2016): https://www.osha.gov/laws-regs/standardinterpretations/2016-05-11-0
  - Historical Variants and Importance of IIAR Standards presented by Resource Compliance: https://calcupa.org/CMS15/upload-manager/presentations/CUPA-2023/4221-20616-2023-cupa-conference---ragagep-historical-varients.pdf
  - RAGAGEP Challenges: https://www.resourcecompliance.com/wp-content/uploads/2017/07/20170710-RAGAGEP-Codes-Standards-and-Good-Engineering-Practices.pdf
- USEPA List of Lists (Federal release reporting thresholds): https://www.epa.gov/epcra/consolidated-list-lists

Questions?

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