

# **APPENDIX A-1**

## **CALIFORNIA ACCIDENTAL RELEASE PROGRAM (CalARP) REGULATION**

**(CCR Title 19, Division 2, Chapter 4.5)**

Insert final CalARP Regulation here.

# **APPENDIX G**

## **GLOSSARY OF ABBREVIATIONS**

## **GLOSSARY OF ABBREVIATIONS**

AA	Administering Agency
CalARP	California Accidental Release Prevention
CCR	California Code of Regulations
CEPPO	Chemical Emergency Preparedness and Prevention Office
CFR	Code of Federal Regulations
CUPA	Certified Unified Program Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
OCA	Offsite Consequence Analysis
OES	Governor's Office of Emergency Services (California)
PHA	Process Hazard Analysis
POTW	Publicly Owned Treatment Works (waste water treatment)
RMP	Risk Management Plan/Risk Management Program
RS	Regulated Substance
TQ	Threshold Quantity
USEPA	United States Environmental Protection Agency

# **APPENDIX H**

**CalARP**

**SCREENING QUESTIONNAIRE**

(Region 1)

## **INSTRUCTIONS FOR COMPLETION OF THE CalARP PROGRAM SCREENING QUESTIONNAIRE AND SCREENING MATRIX**

Please refer to the General Guidance for Risk Management Programs for an understanding of the CalARP Program requirements, including Program 1, Program 2, and Program 3 criteria. The requirements specific to California's Region I LEPC are included in the addendum to the Guidance document: "Region I LEPC CalARP Program Implementation Guidance Document".

### **1.0 Introduction**

- 1.1 The CalARP Program (the California program which includes federal Accidental Release Prevention Program) replaces the Risk Management and Prevention Program (RMPP), which was in place in California prior to the promulgation of Chemical Accident Prevention Provisions by the federal EPA. The list of Regulated Substances and their threshold quantities for CalARP Program and the list of Acutely Hazardous Materials for RMPP are not the same. To compound the problem, the CalARP/federal regulations exist in parallel with OSHA Process Safety Management regulations, which also address accidental release prevention, but which apply to highly hazardous chemicals (again different list and thresholds).
- 1.2 Because of the multiple hazardous materials regulations, a facility may find itself in any one of the following situations:
  - 1.2.1 The facility falls under OSHA PSM and has previously prepared an RMPP for all Regulated Substances (RSs).
  - 1.2.2 The facility has a PSM program for all RSs, but has not been requested to prepare an RMPP.
  - 1.2.3 The facility has a PSM program and prepared an RMPP, but has other processes or substances to be included in an RMP.
  - 1.2.4 The facility has a PSM program, has not been requested to prepare an RMPP, but will now need to prepare an RMP for substances not already covered by a PSM program.
  - 1.2.5 The facility does not fall under a PSM, but prepared an RMPP for the same substances for which an RMP is required.
  - 1.2.6 The facility does not fall under a PSM and has not been requested to prepare an RMPP.

- 1.3 As a result of this program overlap, it is not easy for either a facility or an agency to determine the extent to which the CalARP Program requirements have been satisfied by work already performed in preparing an RMPP and/or developing a PSM Program.
- 1.4 The CalARP Program Screening Questionnaire and Screening Matrix are intended to help evaluating what work has already been done under the RMPP and PSM regulations, and what needs to be completed. This information will assist a facility in scoping and planning the work which needs to be performed by the RMP submittal date. It will also assist an AA in gauging the needed resources for RMP coordination, technical assistance, and review process.

## **2.0 Screening Questionnaire**

- 2.1 It is suggested that the Screening Matrix is completed before the Screening Questionnaire.
- 2.2 Lengthy answers are not required; even complex facilities should be able to fit an answer in the space provided.
- 2.3 Answers to questions 4, 5, and 6 should expand an information provided in the Screening Matrix. You may choose to include all or part of your answer in the Remarks column of the matrix.
- 2.4 If you do not know at this time how or by whom specific RMP tasks will be performed, indicate when this information is likely to be available.

## **3.0 Screening Matrix**

- 3.1 Sample completed matrices for simple and complex facilities are attached. You may choose to provide the Remarks column's information as footnotes on the matrix, or in the questionnaire.
- 3.2 Regulated substances should be listed on a process-by-process basis. For each process list each RS present in the process. For flammable mixture, it is not necessary to list all the components here. Make sure that information on the Matrix is consistent with your completed CalARP Program Registration Form.

- 3.3 In the column headed “RMPP?” mark an X for each process/RS combination for which an RMPP was prepared. In the column headed “PSM?” mark an X for each process/RS combination which falls under the scope of the PSM regulations. Otherwise leave the column blank.
- 3.4 In the “Year of Latest PHA” column indicate, for each applicable process/RS combination, the year in which an RMPP Hazard Evaluation or Process Hazard Analysis (PHA) for PSM was performed or last revalidated/updated.
- 3.5 In the “Year of Latest Seismic Study” column indicate, for each applicable process/RS combination, the year in which a Seismic Study was performed or last revalidated/updated.
- 3.6 In the “Year of Latest OCA” column indicate, for each applicable process/RS combination, the year in which an Offsite Consequence Analysis was last performed or updated.
- 3.7 Use the Remarks column to provide clarification of Matrix entries or information requested in the Screening Questionnaire.

# CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM

## SCREENING QUESTIONNAIRE

Please refer to the instructions before completing this questionnaire and the Screening Matrix.

Facility Name/Site Address:

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1. Who will be a qualified person(s) assigned overall responsibility for the development, implementation, and integration of the Risk Management Plan elements?

2. Have you determined the CalARP Program level(s) for all covered processes?

(On the enclosed CalARP Program Screening Matrix we have included the following information from your completed CalARP Program Registration Form: covered process number and a list of regulated substances above a threshold quantity, **for your verification**).

YES - the highest Program Level is \_\_\_\_\_

NO - it will be determined by \_\_\_\_\_ (date)

3. If your highest program level is Program 1, explain how and by whom this was determined for all covered processes.

**IF THE HIGHEST PROGRAM LEVEL IS PROGRAM 1, DO NOT COMPLETE THE REST OF THIS QUESTIONNAIRE.**

4. If any entry has been made in the “Year of the Last PHA” column of the Screening Matrix, indicate who performed it (internal group name or consulting company name), what method(s) were used, and what agency (if any) reviewed the report(s). Indicate which external events were considered.
  
5. If any entry has been made in the “Year of the Last Seismic Study” column of the Matrix, indicate who performed it, and what agency (if any) reviewed the report(s).
  
6. If any entry has been made in the “Year of the Last OCA” column, indicate who performed it, and what agency (if any) reviewed the report(s).

**FOR THE FOLLOWING QUESTIONS SPECIFY THE PERSON(S) AND/OR DEPARTMENT/CONSULTING FIRM; IDENTIFY QUALIFICATIONS/EXPERIENCE RELEVANT TO THE WORK TO BE PERFORMED.**

7. Who will prepare the Risk Management Plan?
  
8. Who will conduct the Hazard Review for Program 2 processes or PHA for Program 3 processes; what methodology will be used? How will external events, other than seismic, be addressed?
  
9. How and by whom will Seismic Events Analysis be performed?

10. Who will perform the Hazard Assessment (Worst-Case and Alternative Release Scenario Analysis, and Offsite Consequence Analysis); what methodology will be used?

11. Provide a schedule for your RMP development and submission. As a minimum identify the following milestones:

Hazard Review or Process Hazard Analysis  
Seismic Study  
Hazard Assessment  
Prevention Program Development  
Risk Management Plan Preparation

**Please notify LAFD of the date(s) and location of the PHA/Hazard Review meetings.**

12. Describe your facility's status regarding emergency response to accidental releases of regulated substances: responding or non-responding facility. Refer to OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 CFR 1910.120) for a definition of "response".

13. What is your organization's policy on communication with the public on your RMP? This is not a regulatory requirement.

*Example A*

CalARP PROGRAM SCREENING MATRIX

Process No.	Process Name	Regulated Substance	RMPP?	PSM?	Year of Latest PHA	Year of Latest Seismic Study	Year of Latest OCA	Remarks
1.	Water Treatment	Chlorine	X	X	1997	1992	1992	
2.	Water Treatment	28% Aqua Ammonia						

*Example B*

RMP SCREENING QUESTIONNAIRE MATRIX FORM

1.	Crude Unit No.1	Flammables		X	1994			
2.	HDS Unit No.1	Flammables		X	1992			
		Hydrogen Sulfide	X		1992	1992	1992	
3.	Amine Unit	Flammables		X	1992			
		Hydrogen Sulfide	X		1992	1992	1992	
	Etc.							

# **APPENDIX K**

**CalARP**

**REGISTRATION FORM**

(Region 1)

**RISK MANAGEMENT PLAN REGISTRATION**

REGISTRATION TYPE <input type="checkbox"/> New <input type="checkbox"/> Update		UPDATE TYPE <input type="checkbox"/> Add <input type="checkbox"/> Delete <input type="checkbox"/> Revise	
EPA ID NUMBER: _____ 2	FACILITY I.D. NUMBER _____ 1	NUMBER OF FULL-TIME EMPLOYEES: _____	
DBA/BUSINESS NAME: _____ 3			
BUSINESS LOCATION: STREET _____			
CITY _____		COUNTY _____ CA -	
LATITUDE _____	LONGITUDE _____	DUNS _____	
PARENT COMPANY NAME: _____		PARENT COMPANY DUNS _____	
OWNER/OPERATOR: NAME _____		PHONE _____	
MAILING ADDRESS: STREET _____			
CITY _____		CA -	
RMP CONTACT NAME _____		TITLE _____	
EMERGENCY CONTACT NAME _____		TITLE _____	
24-HOUR PHONE _____		PHONE _____	
LAST SAFETY INSPECTION: DATE _____		AGENCY _____	
SOURCE SUBJECT TO CCR Title 8, Sec. 5189 <input type="checkbox"/> YES <input type="checkbox"/> NO	SOURCE SUBJECT TO 40 CFR 355?: <input type="checkbox"/> YES <input type="checkbox"/> NO	CAA TITLE V OPERATING PERMIT?: <input type="checkbox"/> YES <input type="checkbox"/> NO	

COVERED PROCESS NO. ONE: \_\_\_\_\_ 303

NAICS CODE: \_\_\_\_\_ 27

PROGRAM LEVEL:  1  2  3

	Regulated Substance Chemical Name 304	CAS Number 311	Concentration (wt %) 309	Maximum Qty. (lbs) 305
1.				
2.				
3.				

COVERED PROCESS NO. TWO: \_\_\_\_\_

NAICS CODE: \_\_\_\_\_ 27

PROGRAM LEVEL:  1  2  3

	Regulated Substance Chemical Name	CAS Number 64	Concentration (wt %) 81	Maximum Qty. (lbs) 72
1.				
2.				
3.				

COVERED PROCESS NO. THREE: \_\_\_\_\_

NAICS CODE: \_\_\_\_\_ 27

PROGRAM LEVEL:  1  2  3

	Regulated Substance Chemical Name	CAS Number 64	Concentration (wt %) 81	Maximum Qty. (lbs) 72
1.				
2.				
3.				

FOR OFFICE USE ONLY: RECEIVED BY (Initials): \_\_\_\_\_ DATE: \_\_\_\_\_ DATA ENTRY (Initials): \_\_\_\_\_ DATE: \_\_\_\_\_

# **APPENDIX J**

## **EMERGENCY RESPONSE PROGRAM**

### **- BACKGROUND INFORMATION**

## EMERGENCY RESPONSE PROGRAM - BACKGROUND

The following shows analogous California regulations, which would apply, in the same context (to California facilities) as the federal emergency response/emergency planning regulations listed in the USEPA RMP General Guidance, Exhibit 8-2. The information in the following table is provided in the same order as Exhibit 8-2.

<b>Correlation of Federal Emergency Planning Regulations to Analogous California Requirements</b>	
<b>FEDERAL</b>	<b>STATE</b>
EPA's Oil Pollution Prevention Regulation (SPCC, 40 CFR Part 112.7(d)) and Facility Response Plan Requirements, 40 CFR Part 112.20-.21)	In addition, for land-based facilities that could impact tidally-influenced waterways - CCR Title 14, Division 1, Subdivision 4, Chapter 3, Subchapter 3, "Oil Spill Contingency Plans," Section 815.01-820.01.
MMS's Facility Response Plan Regulation - 30 CFR Part 254	See above.
RSPA's Pipeline Response Plan Regulation - 49 CFR Part 194	Some pipeline emergency response requirements are delineated by CCR Title 14, Division 2, Chapter 2, Sections 1760-1774, Pipeline Management Plan.
USCG's Facility Response Plan Regulation - 33 CFR Part 154, Subpart F	No Analogous California Requirement
EPA's Risk Management Program Regulation - 40 CFR Part 68	California Code of Regulations, Title 19 - Public Safety, Division 2 - Office of Emergency Services, Chapter 4.5 - "California Accidental Release Prevention (CalARP) Program", Sections 2735.1-2785.1
OSHA's Emergency Action Plan Regulation - 29 CFR 1910.38(a)	California Code of Regulations, Title 8, Section 3220 - "Emergency Action Plan"
OSHA's Process Safety Management Standard - 29 CFR 1910.119	California Code of Regulations, Title 8, Section 5189 - "Process Safety Management of Acutely Hazardous Materials"
OSHA's HAZWOPER Regulation - 29 CFR 1910.120	California Code of Regulations, Title 8, Section 5192 - "Hazardous Waste Operations and Emergency Response"
OSHA's Fire Brigade Regulation - 29 CFR 1910.156	California Code of Regulations, Title 8, Section 3411 - "Private Fire Brigades"

<b>Correlation of Federal Emergency Planning Regulations to Analogous California Requirements (continued)</b>	
<b>FEDERAL</b>	<b>STATE</b>
EPA's Resource Conservation and Recovery Act Contingency Planning Requirements - 40 CFR Part 264, Subpart D, 40 CFR Part 265, Subpart D, and 40 CFR 279.52	California Code of Regulations, CCR 66261, "California Hazardous Waste Control Law"
EPA's Emergency Planning and Community Right-to-Know Act Requirements - 40 CFR Part 355.	No Analogous California Requirement
EPA's Storm Water Regulations - 40 CFR 122.26	No separate requirements. Federal requirements are typically regulated by the applicable regional water quality control board (as delegated to them by the state water resources control board). It should be noted that other regulations may be incorporated as part of the permit, depending on the conditions specific to the activity or site.
No analogous regulation	Business Plan CCR, Title 19, Sec. 2729-2732

It should be noted that the above table is provided as an addendum to the list of Federal Emergency Planning Regulations (Exhibit 8-2) in Chapter 8 of the USEPA RMP General Guidance, and is not intended to be a comprehensive list of all emergency response/emergency planning regulations, state or federal, which may apply to a facility.

# **APPENDIX L**

## **RISK MANAGEMENT PLAN**

### **TABLE OF CONTENTS**

(Recommended)

# **RISK MANAGEMENT PLAN**

## **TABLE OF CONTENTS**

1. EXECUTIVE SUMMARY
  - 1.1. Accidental release prevention and emergency response policies.
  - 1.2. General description of the stationary source and regulated substances.
  - 1.3. Offsite consequence analysis results.
  - 1.4. Summary of the general accidental release prevention program and chemical-specific prevention steps.
  - 1.5. Summary of the five-year accident history.
  - 1.6. Summary of the emergency response program.
  - 1.7. Planned changes to improve safety.
2. OFFSITE CONSEQUENCE ANALYSIS
  - 2.1. Worst-case release scenario(s) for toxics.
    - 2.1.1. Release scenario description and release parameters.
    - 2.1.2. Description of OCA methodology, including description of air dispersion model, if applicable.
    - 2.1.3. Meteorological data.
    - 2.1.4. Presentation of the OCA results including residential population data, and public/environmental receptors checklist.  
(may also include map of vulnerability zone [optional])

2.2. Worst-case release scenario(s) for flammables.

2.2.1. Release scenario description and release parameters.

2.2.2. Description of OCA methodology, including description of model, if applicable.

2.2.3. Presentation of the OCA results including residential population data and public/environmental receptors checklist.  
(may also include map of vulnerability zone [optional])

2.3. Alternative release scenario(s) for toxics.

2.3.1. Release scenario description and release parameters.

2.3.2. Description of OCA methodology, including description of air dispersion model, if applicable.

2.3.3. Meteorological data.

2.3.4. Presentation of the OCA results including map, residential population data, and sensitive receptors list.

2.4. Alternative release scenario(s) for flammables.

2.4.1. Release scenario description and release parameters.

2.4.2. Description of OCA methodology, including description of model, if applicable.

2.4.3. Presentation of the OCA results including map, residential population data, and sensitive receptors list.

3. FIVE-YEAR ACCIDENT HISTORY

4. PROGRAM 2 PREVENTION PROGRAM FOR : (covered process name)
  - 4.1. NAICS Code
  - 4.2. Chemical name(s)
  - 4.3. Safety Information
  - 4.4. Hazard review
  - 4.5. Date of the most recent review/revision of operating procedures
  - 4.6. Training
  - 4.7. Maintenance
  - 4.8. Compliance audits
  - 4.9. Incident investigation
  - 4.10. Date of the most recent change that triggered review/revision of safety information, hazard review, operating or maintenance procedures or training
  - 4.11. External events analysis information.
  
5. PROGRAM 3 PREVENTION PROGRAM FOR: (covered process name)
  - 5.1. NAICS Code
  - 5.2. Chemical name(s)
  - 5.3. Date on which safety information was last reviewed/revision
  - 5.4. Process Hazard Analysis
  - 5.5. Date of the most recent review of operating procedures
  - 5.6. Training
  - 5.7. Maintenance
  - 5.8. Management of change
  - 5.9. Date of the most recent pre-startup safety review
  - 5.10. Compliance audits
  - 5.11. Incident investigation
  - 5.12. Date of the most recent review/revision of employee participation plans
  - 5.13. Date of the most recent review/revision of hot work permit procedures
  - 5.14. Date of the most recent review/revision of contractor safety procedures
  - 5.15. Date of the most recent evaluation of contractor safety performance
  - 5.16. External events analysis information.
  
6. EMERGENCY RESPONSE PROGRAM
  - 6.1. Emergency response (ER) plan
  
  - 6.2. Does facility ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?

- 6.3. Does facility ER plan include procedures for informing public and local agencies responding to accidental release?
- 6.4. Does facility ER plan include information on emergency health care?
- 6.5. Date of the most recent review/update of facility ER plan?
- 6.6. Date of the most recent emergency response training for employees.
- 6.7. Primary local emergency response agency with which the ER plan is coordinated.
- 6.8. Subject to (select all that apply)
  - 6.8.1. CalOSHA, CCR Title 8, Section 3220
  - 6.8.2. CalOSHA, CCR Title 8, Section 5192
  - 6.8.3. CCR Title 14, Section 815.01-820.01
  - 6.8.4. RCRA (40 CFR 264, 265, 279.52)
  - 6.8.5. OPA -90 (40 CFR 113, 33 CFR 154, 49 CFR 194, 30 CFR 254)
  - 6.8.6. OES, CCR Title 19, Section 2729-2732
  - 6.8.7. Other (specify)
7. CERTIFICATION (select appropriate statement for each program level)
8. REGISTRATION (attached form: optional)

# **APPENDIX I**

## **GUIDANCE FOR CalARP SEISMIC ASSESSMENTS**

(Region 1)

Insert Seismic Guidance here.

# **APPENDIX M**

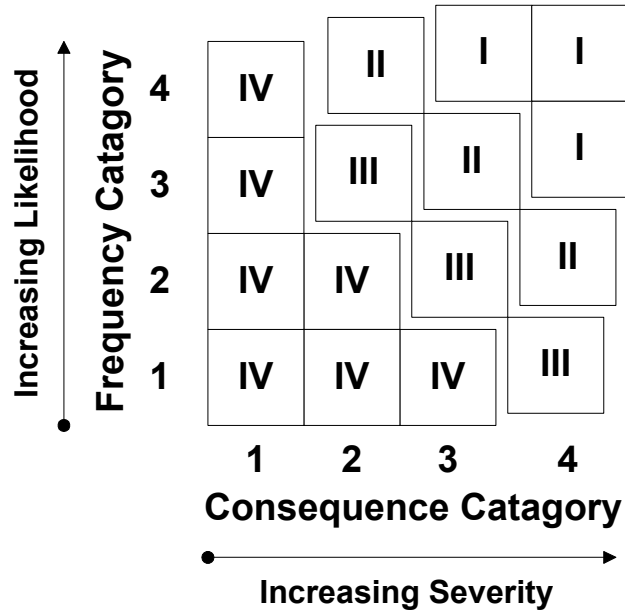
## **RMP RISK COMMUNICATION**

### **- SAMPLE RISK MATRIX**

(from Center for Chemical Process Safety, "Guidelines for Hazard Evaluation Procedures" (1992))

## Example of Risk Matrix

- from Center for Chemical Process Safety (CCPS), "Guidelines for Hazard Evaluation Procedures" (1992)



Stone and Webster Engineering Corporation, Houston, TX - in CCPS (1992)

## Example of Risk Ranking Matrix Categories

<u>Number</u>	<u>Category</u>	<u>Description</u>
<b>I</b>	Unacceptable	Should be addressed immediately and mitigated to a risk ranking of III (or less) within 6 months or less
<b>II</b>	Undesirable	Should be addressed as soon as possible and mitigated to a risk ranking of III (or less) within 12 months or less
<b>III</b>	Acceptable (with controls)	Should be addressed in a timely manner and verified that procedures and/or controls are in place
<b>IV</b>	Acceptable (as is)	Does not need to be addressed, no mitigation required

Stone and Webster Engineering Corporation, Houston, TX - in CCPS (1992)

### Example of Likelihood Category Scales

<u>Category</u>	<u>Description</u>
1	Not expected to occur during facility/process lifetime
2	Expected to occur no more than once during facility/process lifetime
3	Expected to occur several times during facility/process lifetime
4	Expected to occur more than once a year

JBF Associates, Inc., Knoxville, TN - in CCPS (1992)

### Example of Severity Category Scales

<u>Category</u>	<u>Description</u>
1	No injury or health effects
2	Minor injury or minor health effects
3	Injury or moderate health effects
4	Death, severe injury or severe health effects

JBF Associates, Inc., Knoxville, TN - in CCPS (1992)