

INTRODUCTION

If you handle, manufacture, use, or store any of the toxic and flammable substances listed in Tables 1, 2, or 3 of Section 2770.5 of the California Accidental Release Prevention Program (CalARP) regulation above the specified threshold quantity in a process, you are required to develop and implement an accidental release prevention program to comply with the CalARP regulation. This regulation, Code of California Regulations, Title 19, Division 2, Chapter 4.5, applies to a wide variety of facilities that manufacture, store, or use toxic substances including chlorine and ammonia and highly flammable substances such as propane.

PURPOSE OF THIS GUIDANCE DOCUMENT

The purpose of this document is to provide specific guidance on how to determine if you are subject to the CalARP regulation, how to implement programs that comply with the CalARP regulations, and what to include in the written Risk Management Plan (RMP) to meet the expectations of CCCHSD. Program guidance is given in Chapters 1 through 8. Guidance for preparing an RMP document is given in Chapter 9, and examples of RMP documentation that would meet CCCHSD expectations are included in Appendix A. Specific guidance is not given for preparing the federal EPA RMP but the major differences between the federal RMP and CCCHSD are cited below in California Vs Federal Regulations and Guidance. Specific guidance for preparing the federal EPA RMP is contained in the EPA guidance document “General Guidance on Risk Management Programs.”

YOUR GENERAL DUTY FOR ACCIDENTAL RELEASE PREVENTION

Even if you are not required to comply with the CalARP regulation, you have a general duty under Section 112(r)(1) of the federal Clean Air Act Amendments to prevent and mitigate the consequences of releases of extremely hazardous substances. The federal EPA has not delegated enforcement of the general duty clause to the states.

GENERAL DUTY

Section 112(r)(1) of the CAA, the “general duty clause”, requires owners and operators of stationary sources producing, processing, handling or storing extremely hazardous substances to do the following:

- Identify hazards which may result from releases using appropriate hazard assessment techniques;
- Design and maintain a safe facility taking such steps as are necessary to prevent releases; and,
- Minimize the consequences of accidental releases that do occur.

EXTREMELY HAZARDOUS SUBSTANCE

In the general duty context, extremely hazardous substance means any substance, handled in any quantity, listed or unlisted, that a short-term exposure to could result in death, injury, or property damage.

PROGRAM GOAL

The goal of the California Accidental Release Prevention (CalARP) program is to prevent accidental releases of substances that can cause serious harm to the public and the environment from short-term exposures and to mitigate the severity of releases that do occur. The 1990 Amendments to the Clean Air Act (CAA) outline the actions to be taken by facilities (referred to in the law as stationary sources) to prevent accidental releases of such hazardous chemicals into the atmosphere and reduce their potential impact on the public and the environment. The federal EPA approved regulations (40CFR Part 68) implementing the accidental release provisions of the CAA. The CalARP Regulation incorporates all of Part 68 plus some amendments specific to California that make the CAA required actions more specific for California stationary sources. Therefore, if you comply with the CalARP regulations, you will be in compliance with federal EPA regulations.

In general, the CalARP regulations require that:

- Certain stationary sources must develop and implement an accidental release prevention program and maintain documentation of the program at the site. The accidental release prevention program will include an analysis of the potential offsite consequences of an accidental release, a five-year accident history, a release prevention program, and an emergency response program.
- These stationary sources must develop and submit a risk management plans (RMP), which includes registration, either to both EPA and CCCHSD, or only to CCCHSD (See Chapters 1 and 9). The RMP provides a summary of the accidental release prevention program. The RMP will be available to government agencies and the public.
- These stationary sources also must continue to implement the accidental release prevention program and update the RMP periodically or when processes change, as required by the CalARP regulation.

The phrase “risk management program” refers to all of the requirements of the CalARP regulation that must be implemented on an on-going basis. The phrase “risk management plan (RMP)” refers to the document that you must submit summarizing the stationary source’s accidental release prevention program.

PREDICTIVE FILING

The CalARP regulations require that a new or revised RMP be submitted no later than the date a new regulated substance is present above a threshold quantity in a process. There are stationary sources that this can occur frequently including warehouses, toll processors, and chemical distribution facilities. USEPA is making arrangements for predictive filing that CCCHSD will adopt. Predictive filing means that any stationary sources that anticipate that at any time within the next five years they will have regulated substances above a threshold quantity on site for any period of time, can, in their original RMP filing, address those regulated substances. The risk management plan for the predicted substances does not have to be in place when RMP is filed, but must be in place when the substance comes on the stationary source. CCCHSD must be notified before the substances come on site. It must be made clear in the RMP which regulative substances are predictive and which are non-predictive, and which facets of the risk management plan are currently in place and which are not.

CALIFORNIA VS FEDERAL REGULATIONS AND GUIDANCE

As stated above, the CalARP regulation is the same as the federal regulation with some amendments. The amendments that affect applicability and RMP preparation are:

- The CalARP regulation expanded state applicability by adding the California toxic substance list, Table 3, to the lists of regulated substances. Table 3 contains more toxic substances than those in Table 1, the federal regulated substances list. The Table 3 threshold quantities are lower than those in Table 1. This is addressed in Chapter 1.
- The CalARP regulation allows the AA to change covered process program levels for California applicable processes only and only at stationary sources that do not have any processes required to submit a federal RMP to the EPA. This is addressed in Chapter 2.
- Section 2735.5 of the CalARP regulation and section 25534.05(d) of the Health and Safety Code require the stationary source to work closely and closely coordinate with the AA to implement the requirements of the CalARP regulation and to determine the appropriate level of documentation required to comply with the regulation. The purpose of Chapter 9 and Appendix A of this document is to give guidance on what is an appropriate level of documentation in Contra Costa County.
- Sections 2755.2(d) and 2760.2(c)(8) of the CalARP regulation and Section 25534.05(c) of the Health and Safety Code require stationary sources to include consideration of external events, including seismic events, in the process hazard analysis or hazards review. Certain information from the consideration of external events is required to be included in the RMP. This is addressed in Chapters 6, 7, and 9, and Appendix A.

CALIFORNIA VS FEDERAL EPA PROGRAM REQUIREMENTS

There are no regulatory differences between the programs you must implement except for the CalARP requirement to consider an external events analysis in your hazard review or process hazards analysis. Chapters 1 through 8 cover the program requirements. CCCHSD uses “must” and “should” to provide guidance to industry on the development of these programs. The use of “must” reflects regulatory requirements for program development (e.g., You must develop a schedule for inspecting and testing equipment associated with covered processes). The use of “should” reflects suggested activities. For example, Program 2 covered processes are not required by the CalARP regulation to maintain training records for employees. However, stationary sources should maintain training records to verify, during compliance audits, that training was conducted. If documentation is not maintained, the audit team will need to perform extensive interviews with employees to ensure that training was conducted and that it was conducted at an appropriate frequency.

CCCHSD VS FEDERAL EPA RMP DOCUMENTATION REQUIREMENTS

The RMP submitted to CCCHSD must comply with the CalARP regulation for all processes containing more than a threshold quantity of a regulated substance listed in Tables 1, 2, or 3 of the CalARP regulation. The RMP submitted to the federal EPA must comply with federal regulation 40CFR Part 68 for all process containing more than a threshold quantity of a regulated substance listed in Tables 1 or 2 of the CalARP regulation. Documentation components required by the CalARP regulation but not the federal regulation do not have to be submitted to the federal EPA. The federal RMP will be submitted electronically, the CCCHSD RMP will be submitted as a hard copy. RMP submission is covered in detail in Chapter 9. The major difference is that CCCHSD expects a more extensive Executive Summary than the federal EPA in order to meet the communication needs of Contra Costa County community.

CONTRA COSTA COUNTY VS FEDERAL GUIDANCE DOCUMENTS

The Federal EPA guidance document, *General Guidance on Risk Management Programs*, is the basis for this guidance document. Much of the federal document language and intent was not changed; however, some sections were revised to reflect CalARP regulatory requirements and differences in regulatory interpretation. Differences in regulatory interpretation include:

- Definition of significant on-site damage addressed in Chapter 2. The federal guidance document states that any on-site damage in excess of \$50,000 is significant but something less could be significant. CCCHSD guidance is that the definition of what is significant could be more or less than \$50,000 depending on site-specific factors. The CCCHSD guidance is consistent with that given in an EPA Q & A.
- Substances to include in Five-Year Accident History reporting covered in Chapter 3. The federal guidance is to report only releases from a covered process of regulated substances held in the process above the threshold quantity that cause specified

effects. CCCHSD interprets the regulation to require that you report releases from covered process of regulated substances and other extremely hazardous substances, regardless of the quantity in the process, that cause the same specified effects. The definition of other extremely hazardous substances is that given in page 2 of the Introduction for the General Duty Clause.

MODEL RISK MANAGEMENT PROGRAMS

Industry groups and governmental agencies are developing RMP guidance documents.

- The American Petroleum Institute (API) has published model risk management plans for:
 - Petroleum refineries; and,
 - Exploration and production facilities.
- The Chemical Manufacturers Association (CMA) and API jointly published
 - “A Compliance Guideline for EPA’s Risk Management Program Rule”.
- Other RMP guidance documents, being developed for EPA (and the developers), include:
 - Propane distributors and retailers (State of Delaware)
 - Warehouses (American Warehouse Association)
 - Publicly Owned Treatment Works (POTWs) (American Waterworks Association for Drinking Water)
 - Chemical distributors (National Association of Chemical Distributors)
 - Ammonia refrigeration (International Institute of Ammonia Refrigeration)

Model RMP guidance developed by industry groups and governmental agencies for EPA may not be consistent with this guidance document. If you plan to use a model RMP as the basis for preparing your RMP, you are strongly advised to first consult with CCCHSD to determine consistency with these guidelines. A model plan for your process will provide specific information for your process, including dispersion modeling and prevention program details.

HOW DO YOU USE THIS DOCUMENT?

This document is a technical guidance designed for owners and operators of stationary sources covered by the CalARP regulation; it will help you to:

- Determine if you are covered by the CalARP regulation:

- Determine what accidental release prevention program level and requirements are applicable to your process(es);
- Understand what specific accidental release prevention program activities must be conducted;
- Select a strategy to adopt in implementing an accidental release prevention program, based on your current state of compliance and the potential offsite impact of releases from your process(es); and,
- Understand the expectations of CCCHSD for the reporting, documentation, and risk communication components of the CalARP regulation.

WHAT DO YOU DO FIRST?

Before developing an accidental release prevention program, you should do five things:

(1) Determine how many of your processes are covered by this program

Only sources with a quantity of a regulated substance in excess of the threshold quantity in a process need to comply with the CalARP regulation. All the CalARP regulation applicability requirements apply only to covered processes. See Chapter 1 for more information on how to define your processes and determine if they are subject to the CalARP regulation.

(2) Determine the appropriate program level for each covered process

Depending on specific characteristics of your operations and the results of the offsite consequence analysis for a worst-case release scenario, your covered process may be subject to one of three different sets of requirements. See Chapter 2 for more information.

(3) Determine the CalARP regulatory requirements for the stationary source and each covered process

Certain requirements apply to the stationary source as a whole, while others are process-specific.

(4) Assess your operations to identify current accidental release prevention activities

Because you probably conduct some accidental release prevention activities (e.g., employee training, equipment maintenance, and emergency planning), you should review your current operations to determine if you are already in compliance with

certain provisions of the CalARP regulation. CCCHSD does not expect you to redo these activities if they already meet the CalARP regulation requirements. See Chapters 5 to 8 individually for guidance on how to tell if your existing practices meet those required by the CalARP regulations.

- (5) **Review the regulations and this guidance to develop a strategy for conducting the additional actions you need to take for each covered process. Discuss the requirements with management and staff.**

The accidental release prevention program is an integrated approach to assessing and managing risks and will involve most of the operations of covered processes. Early involvement of both management and staff will help develop an effective program. You are also encouraged to consult with CCCHSD if you have any questions about the program.

Finally, keep in mind that many of these requirements are performance based; that is, the CalARP regulation does not specify how often you should inspect storage tanks, only that you do so in a manner that minimizes the risk of a release. This allows you to tailor your program to fit the particular conditions at your stationary source. The degree of complexity required in an accidental release prevention program will depend on the complexity of the stationary source. For example, the operating procedures for a chemical distributor are likely to be relatively brief, while those for a chemical manufacturing process will be extensive. Similarly, the length of training necessary to educate employees on such procedures would be proportional to the complexity of your operating procedures. A stationary source with complex processes may benefit from a computerized maintenance tracking system, while a small stationary source with a simpler process may be able to track maintenance activities using a logbook.

There is no one right way to develop and implement an accidental release prevention program. Even for the same CalARP regulations elements, your program will be different from everyone else's program (even those processes in the same industry) because it will be designed for your specific situation and hazards. Your program will reflect whether your stationary source is near the public and sensitive environmental areas, the specific equipment you have installed, and the managerial decisions that you have made previously.

WHERE DO YOU GO FOR MORE INFORMATION?

EPA issued the federal risk management program requirements, which are the basis of the CalARP regulation, in Part 68 of Volume 40 of the Code of Federal Regulations. The relevant sections were published in the *Federal Register* on January 31, 1994 (59 FR 4478) and June 20, 1996 (61 FR 31667). Other sources of information are cited in Appendix F.