



# GECAP

Georgia Environmental Compliance Assistance Program

<http://www.gecap.org>

## Risk Management Program

*GECAP of the Georgia Tech Research Institute is a voluntary, non-regulatory environmental compliance program funded by the Georgia Legislature through the University System of Georgia.*

By June 21, 1999, any source that stores more than the threshold quantity (TQ) of a listed, regulated substance in a single process must submit a Risk Management Plan (RMP) to minimize or eliminate the hazards to the surrounding community. This regulatory initiative, which arose from section 112(r) of the Clean Air Act, builds upon the elements of the Occupational Safety and Health Administration's (OSHA) Process Safety Management standard (29 CFR 1910.119), making it a multi-agency effort. The purpose of this regulation is to prevent accidents by identifying hazards and assessing risks. In general, threshold quantities range from 500 to 20,000 pounds. Facilities tripping a threshold quantity must meet general program requirements and develop a prevention program, as described in the next section. Some of the common chemicals and their respective threshold quantities (in pounds) are:

CHEMICAL (Common storage)	THRESHOLD QUANTITY (lbs)
Ammonia (refrigeration)	10,000
Chlorine (water and wastewater, odor control)	2,500
Sulfur dioxide (water dechlorination)	1,000

To ensure that individual processes are subject to the appropriate requirements that match their size and any risks they may pose, the Environmental Protection Agency has classified them into three categories, or Program.

### Program Guidelines

*Program 1* requirements apply to processes for which a worst-case release, as evaluated in the hazard assessment, would not affect the public. These are sources or processes that have not had an accidental release that caused serious off-site consequences in the last five years. It is very unlikely that a facility will fall into the Program 1 category.

*Program 2* requirements apply to less complex operations that do not involve chemical processing (e.g., municipal water and wastewater plants, and other processes not regulated under OSHA's Process Safety Management Standard).

*Program 3* requirements apply to higher risk, complex chemical processing operations and to processes already subject to the OSHA Process Safety Management Standard.

The general 112r requirements, depending upon which of the three programs apply, are as follows:

1. The RMP shall be submitted to a central point, and in a method and format, as specified by the EPA prior to June 21, 1999.
2. Off-site consequence analysis consisting of the Worst Case Release Scenario and the Alternative Release Scenario must be performed. The worst-case release scenario requires that the facility assume a release of the largest vessel (either storage tank or receiver vessel in a time period of 10 minutes for toxic gasses. For explosive gasses, the area affected by the explosion is one which includes an over pressure of 1 psi. "Look Up Tables" are available to standardize the process for organizations that have the same materials. Unlike the worst-case release scenario, the alternative release scenario includes the *most likely* release situation.

- A five-year accident history must be developed. This activity involves any event that resulted in death, injury, significant property damage, evacuations, etc.
- A certification of the general program must be developed, per 40 CFR 68.12(b)(4).
- A management system must be developed and implemented. This system is meant to oversee implementation of the RMP, including assignment of a qualified person to assume overall responsibility.
- Off-site impacts to the population and environment from releases must be defined.

*NOTE: This general program must be reviewed and updated at least every 5 years and both the worst- case and alternative release scenarios must be documented.*

The prevention program requirements for Program 3 are very similar to those of the OSHA Process Safety Management Requirements. They include process safety information, process hazard analysis, operating procedures, training, mechanical integrity, management of change, pre-startup review, compliance audits, incident investigation, employee participation, hot work permits, and contractor requirements. Only sources with processes in

Program 2 and Program 3 must implement a prevention program, an emergency response program, or a management system.

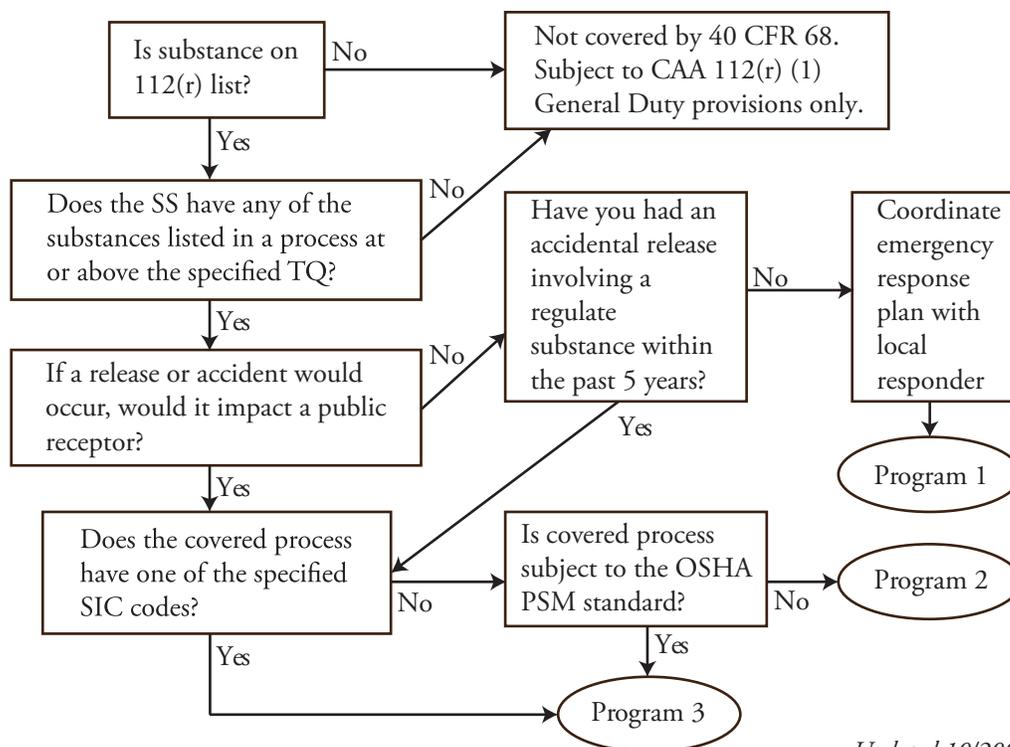
### Additional Efforts

EPA has developed a reporting mechanism and form to collect RMPs in a way that encourages electronic submission. Therefore, these plans will eventually be available far more widely to the public. Many industries are working with their local emergency planning committees (LEPCs) and other organizations to ensure that they do a sufficient job in notifying and educating the public concerning the hazards and controls regarding hazardous materials in their processes.

### For more information

For more information, contact GECAP personnel at 404-407-8082 or email Paige Rohrig at [paige.rohrig@gtri.gatech.edu](mailto:paige.rohrig@gtri.gatech.edu).

The flowchart at right can help you determine whether your facility will need to implement Program 1, Program 2, or Program 3, as required by the EPA based upon processes and substances used.



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