containing the toxic, highly toxic, or explosive substances shall have an RMP that incorporates three elements as a minimum: a hazard assessment, a prevention program, and an emergency response plan.

As a minimum, the hazard assessment shall include the preparation and reporting of worst-case release scenarios for each structure under consideration, showing the potential effect on the public for each. As a minimum, the worst-case event shall include the complete failure (instantaneous release of entire contents) of a vessel, piping system, or other storage structure. A worst-case event includes (but is not limited to) a release during the design wind or design seismic event. In this assessment, the evaluation of the effectiveness of subsequent measures for accident mitigation shall be based on the assumption that the complete failure of the primary storage structure has occurred. The offsite impact shall be defined in terms of population within the potentially affected area. To qualify for the reduced classification, the hazard assessment shall demonstrate that a release of the toxic, highly toxic, or explosive substances from a worst-case event does not pose a threat to the public outside the property boundary of the facility.

As a minimum, the prevention program shall consist of the comprehensive elements of process safety management, which is based upon accident prevention through the application of management controls in the key areas of design, construction, operation, and maintenance. Secondary containment of the toxic, highly toxic, or explosive substances (including, but not limited to, double wall tank, dike of sufficient size to contain a spill, or other means to contain a release of the toxic, highly toxic, or explosive substances within the property boundary of the facility and prevent release of harmful quantities of contaminants to the air, soil, ground water, or surface water) are permitted to be used to mitigate the risk of release. Where secondary containment is provided, it shall be designed for all environmental loads and is not eligible for this reduced classification. In hurricane-prone regions, mandatory practices and procedures that effectively diminish the effects of wind on critical structural elements or that alternatively protect against harmful releases during and after hurricanes are permitted to be used to mitigate the risk of release.

As a minimum, the emergency response plan shall address public notification, emergency medical treatment for accidental exposure to humans, and procedures for emergency response to releases that have consequences beyond the property boundary of the facility. The emergency response plan shall address the potential that resources for response could be compromised by the event that has caused the emergency.

1.6 ADDITIONS AND ALTERATIONS TO EXISTING STRUCTURES

When an existing building or other structure is enlarged or otherwise altered, structural members affected shall be strengthened if necessary so that the factored loads defined in this document will be supported without exceeding the specified design strength for the materials of construction. When using allowable stress design, strengthening is required when the stresses due to nominal loads exceed the specified allowable stresses for the materials of construction.

1.7 LOAD TESTS

A load test of any construction shall be conducted when required by the authority having jurisdiction whenever there is reason to question its safety for the intended use.

1.8 CONSENSUS STANDARDS AND OTHER REFERENCED DOCUMENTS

This section lists the consensus standards and other documents that are adopted by reference within this chapter:

OSHA
Occupational Safety and Health Administration
200 Constitution Avenue, NW
Washington, DC 20210

29 CFR 1910.1200 Appendix A with Amendments as of February 1, 2000.
Section 1.2
OSHA Standards for General Industry, 29 CFR (Code of Federal Regulations) Part 1910.1200
Appendix A, United States Department of Labor, Occupational Safety and Health Administration, Washington, DC, 2005