

Environmental Investigations

The specific requirements for the storage and use of a particular chemical will vary depending on the substance, the jurisdiction, and other local concerns. What follows is a framework of industry responsibilities for the storage and use of petroleum products. In most cases, the requirements associated with petroleum products will be more stringent than for other chemicals.

The responsibilities of industry are designed with the intention of safeguarding human health and the environment. Towards that end, each component of the process of safeguarding will generally fall into one or more of the following categories: Risk Assessment, Release Prevention, Release Control, or Remediation and Notification. When a release occurs, it is important to understand if all of these requirements were met and whether or not they were carried out appropriately.

Risk Assessment	Release Prevention	Release Control	Remediation & Notification
Analysis of any and all potential release scenarios, including predictions of direction, rate of flow, and total quantities of chemical that could be released.	Spill Prevention, Control, and Countermeasure (SPCC) Plan.		
Certification that a Substantial Harm Analysis has been conducted and that the facility is either not subject to Facility Response Plan (FRP) requirements or that an FRP has been completed.	Individual designated to be responsible for the implementation of the Spill Prevention, Control and Countermeasure Plan (SPCC) including the name of the Spill Coordinator.	Groundwater Protection Plan (GPP) The GPP defines best management practices (BMPs) used to protect groundwater.	
	Operating procedures to prevent releases.	Control measures to prevent a release from reaching navigable/drinking water.	Countermeasures to contain, clean up, and mitigate the effects of a release that reaches drinking/ navigable waters.
Description and inventory of the spill emergency response equipment available at the time of the petroleum release.			
	Spill Prevention Plan, including inspection and monitoring program, tank integrity testing procedures, fail-safe engineering controls to prevent overfills, preventive maintenance and housekeeping procedures, formal response training and exercises, and security measures.	A description of spill containment and drainage control structures and equipment for petroleum storage and handling facilities.	Release notification procedures. Spill Contingency Plan describing response and cleanup procedures, including coordination with local authorities and response contractors.
Documentation of review and update of the plans and procedures every five years.			
Professional Engineer (PE) certification or self-certification for qualified facilities; and Management approval of plans and procedures.			

Featured Expert

Michael D. Klein, P.E., CHMM
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Michael heads the environmental practice at Robson Forensic. His expertise involves the systems and processes used to manage and dispose of hazardous materials. His experience includes working at National Priorities List (NPL) superfund sites where he remediated uncontrolled or abandoned hazardous wastes.

Michael's casework often involves analysis of pathways of exposure, including dose reconstruction. His experience includes both public and private sector projects, involving a range of potentially harmful materials. Michael has also taught college level courses in the management, and disposal of hazardous waste and the cleanup and demolition of radiologically contaminated equipment and facilities.

Contact Michael directly to discuss your case and determine how our technical expertise can contribute to your legal strategy.

This framework, when properly followed, creates redundant safeguards that not only put in place controls to prevent a release from occurring, but in the event of a release, will also mitigate the damage it can cause while notifying the public of potential hazards.

When events such as the MCHM release in West Virginia occur, and chemicals are able to affect human and environmental health, there likely has been a breakdown across several levels of safeguards. An investigation into these events can be complicated and depending on the specific details of the case, may require expertise in a number of scientific and engineering disciplines. The environmental group at Robson Forensic is well equipped to investigate these matters to determine which safeguards were properly implemented and which safeguards failed in preventing a chemical exposure.