

Securing Petroleum Storage Tanks Before and After Flooding

Petroleum storage tanks are found on farms as well as in towns and outlying residential areas throughout the floodplain. Above ground and underground tanks can become serious hazards especially during floods. Risks include drinking water contamination, environmental contamination, fire, explosion and mechanical damage from floating tanks. To reduce the risk associated with petroleum storage tanks before and after a flood, follow these procedures – both inside and outside flood-protected areas. These are particularly important if you need to evacuate.

Before a flood

- Be sure above ground and underground tanks are relatively full. This will reduce the possibility of an underground tank being forced out of the ground by a high water table and/or soil saturation. The extra weight will also help stop above ground tanks from tipping over.
- Camlocks on fill pipes must be secured and locked. Check all gaskets and make sure they will complete the seal.
- Above ground tanks must be secured to prevent spills. Valves must be closed and tightened, fill caps secured and tightened, and any venting sealed. This should stop water leaking in.
- Above ground tanks should be tied to an immovable object. This will allow them to float but not leave the property. Some suggestions include: a screw in ground anchor, nearby tree, or building. The ties should be long enough to allow the tank to float up and not be held under water.
- Turn off power to electrical fuel pumps. Locate a manual pump for emergency use if power fails.
- Record fuel levels in each tank for later comparison.
- Do not tie tanks to power poles because they could move or pull the pole down and cause a power failure. Any contact with power poles during a flood is extremely dangerous.
- Consider installing a permanent anchor for your tanks to avoid problems during future floods

After a flood

- Evaluate tanks for damage and leaks. Dip tanks and compare fuel levels to see if fuel has leaked or water has entered the tank.
- Inspect overfill containment devices and clean out any debris or water – under dispenser sumps and dispensing equipment.
- Before using the fuel, check for water contamination. Take a sample of the fuel in a clear container. Let it sit for a short time. Water and fuel will separate. For better accuracy, use a water finding paste with a dip stick. Water finding pastes are available at local fuel suppliers, petroleum supply companies or petroleum contractors.
- Before turning on fuel pumps, check for leaks and make sure all electrical connections are in good working order.
- Contact a petroleum contractor to inspect all tanks and equipment associated with the fueling system.
- Call the 24-hour environmental accident reporting line toll free at 1-855-944-4888, to report any loss of product, missing containers or packages; or if a propane tank appears on your property after a flood.