

Underground Storage Tank Dispenser Containment

Even small releases from underground storage tank (UST) systems — for example, those that occur when changing filters — can lead to significant environmental contamination. Under-dispenser containment is a liquid-tight structure that can take the form of a pan or a sump. Its function is to keep product released by dispenser components, whether from accidental damage, maintenance, or failure, from being released into the environment.

The Federal Energy Policy Act of 2005 contains a provision that requires placing containment under petroleum dispensers attached to underground storage tank systems. Amendments to Storage Tank Program regulations that became effective November 10, 2007, implemented this requirement. See 25 Pa. Code, Chapter 245, Sections 245.421 and 245.422 (relating to performance standards for underground storage tank systems, and upgrading existing underground storage tank systems).

Effective November 10, 2007, dispenser containment is required:

- Under each dispenser of a new or replacement UST system.
- Under each dispenser added to an existing UST system.
- Under an existing dispenser when more than 50 percent of the piping conveying product from the tank to the dispenser is replaced.
- Under an existing dispenser when a vertical riser, interconnected piping and fittings are replaced below the shear valve, or an existing dispenser is replaced, involving a major modification (excavation takes place). See Technical Guidance 263-0900-011, "Storage Tank Modification and Maintenance Issues."

Under-dispenser containment is not required on UST systems installed before November 10, 2007, unless one of the above activities is performed on the UST system.

In a typical dispenser collision, where the shear valve operates as designed, no piping is replaced below the shear valve and no excavation is involved; reinstalling or replacing the dispenser does not require installation of under-dispenser containment.

Newly installed or repaired containment must be tested to ensure it is liquid-tight. For additional information on containment testing, see Fact Sheet 2630-FS-DEP4176 "Containment Testing for Underground Storage Tanks (USTs)."

Storage tank system components can sometimes provide more than one function. Secondary containment is a layer of material that surrounds the storage tank and/or product piping and permits a release to be contained and detected. Under-dispenser containment may be part of a secondary containment system used for piping release detection. When a pipe system uses interstitial monitoring for release detection — as is required on new USTs, see Fact Sheet 2630-FS-DEP1507, "How to Detect Releases in Underground Piping Systems" — the secondary containment must enclose all of the underground piping up to the shear valve.

Some UST systems may have a consumer-style dispenser installed. This style dispenser looks like a pump motor on a stick with a hose attached. It has no framework supporting the dispenser and no sheet metal surrounding it to keep rain out of a standard pan or sump. For this style dispenser, a concrete pad surrounding the dispenser support (riser) pipe and extending approximately two feet in each direction can act as under-dispenser containment.

For more information, visit www.dep.pa.gov, Businesses > Land > Storage Tanks.