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ASTSWMO POLICY POSITION ON UNDERGROUND STORAGE TANK OPEN BERMED CONTAINMENT SYSTEMS AT RETAIL FUELING FACILITIES

This position paper addresses open bermed containment systems at commercial retail fuel facilities that are used to meet the spill prevention equipment requirements for underground storage tanks (USTs) outlined in [40 CFR 280.20\(c\)](#). Bermed containment systems are configured with small concrete berms or curbing that surround the fill riser(s) for a UST system and are typically used at high volume facilities. The floor of the bermed containment systems are generally constructed of concrete and most of these systems have a drain that diverts any spilled liquid, rainwater, or melted snow, to an oil/water separator. Some of these systems have fill pipes extended above grade with fill hoses permanently affixed to the pipe that remain open at the end.

[40 CFR 280.251\(d\)](#) specifically allows owners and operators to use military construction criteria of [Unified Facilities Criteria \(UFC\) 3-460-01, Petroleum Fuel Facilities](#), for regulated airport hydrant systems and UST systems with field-constructed tanks. This would constitute a DoD issued standard code of practice for design, installation, and testing for those systems, which may also be part of a spill prevention, control, and countermeasure (SPCC plan). Retail facilities are typically not constructed to this standard and are not typically subject to the SPCC rule.

The federal UST regulation provides a spill containment basin, also referred to as a spill bucket, as an example of spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe. Spill buckets are universally accepted as meeting the spill prevention equipment requirement. In determining if an open berm containment system is acceptable, it would be held to the same requirement, where it must prevent a release when the transfer hose is detached from the fill pipe and be designed and installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory.

It is the position of the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) that open bermed containment systems are less protective of human health and the environment and may not prevent a release when the transfer hose is disconnected from the fill pipe for the following reasons:

- Spilled product may not drain to the oil/water separator and may remain exposed in the bermed containment system. The exposed product presents a public health and safety issue with vapors being released to the environment and it is a fire hazard.
- Spill buckets are constructed of an impermeable barrier, such as high-density polyethylene (HDPE), while the bermed containment systems at retail facilities are not

typically constructed to a standard code of practice, and are constructed of concrete, which if not designed and constructed properly raises concerns regarding porosity and permeability.

- The underground piping between the bermed containment system and the oil/water separator are not routinely monitored. The release of product may go undetected indefinitely if the piping is compromised.
- Currently there is no testing protocol outlined by the Petroleum Equipment Institute (PEI) or the National Work Group on Leak Detection Evaluations (NWGLDE) that tests this type of bermed containment system. Testing of these systems was required to be completed by October 13, 2018.
- Tank and piping installation codes of practice developed by a nationally recognized association or independent testing laboratory do not address open bermed containment systems.

ASTSWMO has taken the position that open bermed containment systems that are not installed to a standard code of practice at retail facilities are less protective of public safety and health and the environment and do not meet the requirements of 40 CFR 280.20(c). ASTSWMO, therefore, recommends that these systems be replaced to comply with 40 CFR 280.20(c).

Approved by the ASTSWMO Board of Directors on July 19, 2016, in Galloway, New Jersey.

Revised and Retained by the ASTSWMO Board of Directors on October 27, 2021, in Arlington, Virginia.