



Containment Sump Testing - Get Your Questions Answered

This document provides recent questions and answers on testing required containment sumps. Only “new” required containment sumps must be tested; pre-2017 containment sumps do not need to be tested.

The U.S. Environmental Protection Agency passed new regulations in 2015, which Missouri recently adopted in a state-specific rulemaking. Starting July 1, 2017, if a new tank and/or piping is installed, containment sumps may be required, along with containment sump maintenance, repair, monitoring and testing. For more information about when containment sumps are required, please see the department’s *Dispenser Replacement Guidance* (dnr.mo.gov/env/hwp/docs/ReplacingYourDispenser.pdf) or the department’s *New Secondary Containment Requirements* guidance (dnr.mo.gov/env/hwp/docs/SecondaryContainmentRequirements.pdf).



How do I test my containment sumps?

At least every three years, required containment sumps must be tested by using one of the following:

1. Following the procedures in Petroleum Equipment Institute (PEI) RP 1200 *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities*
 - This includes filling containment sumps with water and monitoring the water level for any changes
2. Using a secondary containment test listed by the National Work Group on Leak Detection Evaluations (nwgldc.org)
3. Using another method pre-approved by the Department of Natural Resources

Clean containment sumps prior to filling the sump with water for testing.

Can I use the “low level testing” procedure at my facility?

Standard containment sump testing procedures require the containment sump to be filled with water to at least four inches above the highest penetration or seam. “Low level” testing is an alternative method that only requires filling the sump to the sensor to test, but only if all of the following requirements are met*:

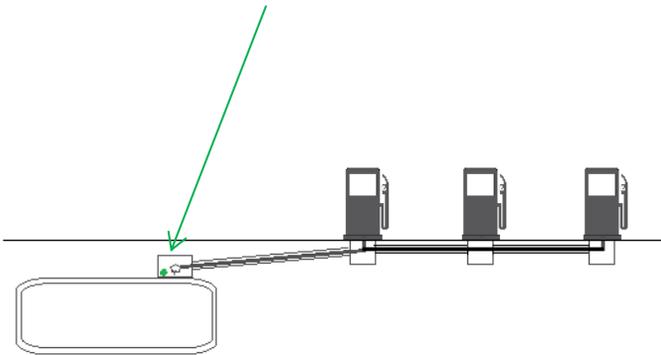
1. The sensor is properly installed at the lowest point in the sump.
2. The sensor will alarm upon detecting liquid in the sump.
3. The sensor alarm will also **shut down** the submersible turbine pumps (STPs) associated with the piping being monitored for a dispenser. This could shut down all STPs at the facility, depending on the products dispensed through that dispenser.

*This test method is only approved for routine testing; it may not be used as the post-install or post-repair test.

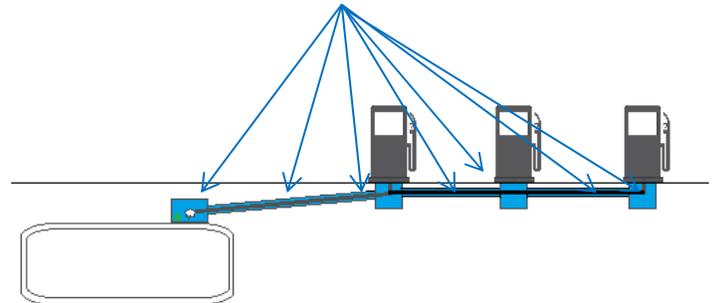
Can I install only one “low point” sensor for my entire piping run?

This is not the recommended installation, because all of the containment sumps *and the secondary (outer) piping system* become a single ‘containment sump,’ which must all be tested together.

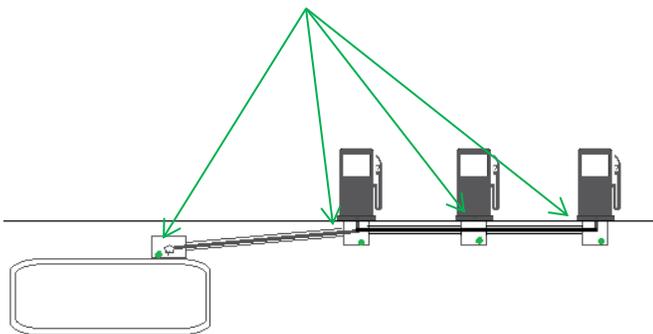
If only one sensor here



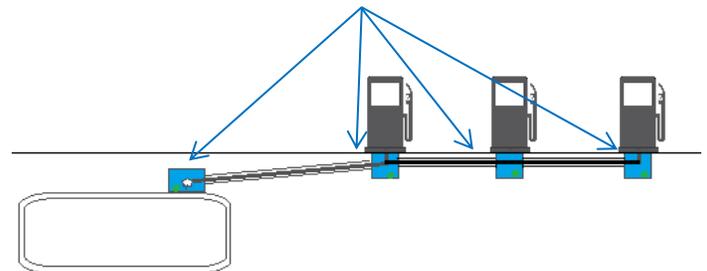
Must test all sumps and outer piping *together*



If sensors are in each sump



Can test sumps only (not piping) and test separately



Jumpers or hoppers connect piping interstitial spaces, but do not allow monitoring of the single-walled fittings that are being bypassed. Sumps around single-walled fittings must be monitored and tested.



If the test fails, can I repair my sump or do I have to replace it?

Containment sumps may be repaired. Please note, most containment sumps require continuous monitoring. Poor or inadequate repairs may allow persistent water intrusion issues which lead to repeated alarms. As owners/operators must respond to sensor alarms, bad repairs could create extra work and recordkeeping. There are many repair options available. Discuss the different options with your tank equipment contractor.

Is there an alternative to the three-year containment sump test?

Yes. If you install a double-walled containment sump, you may monitor the space between the walls of the sump once a year. This annual interstitial check may be done with an electronic sensor permanently installed, a gauge that is manually checked, a manual check of the space, or with a pressure or vacuum test of this space. An annual check or test of the interstitial space of a double-walled containment sump may be used instead of the three-year hydrostatic sump test.

How do I handle the water from my sump test?

For information about disposing of test water, please see the department's fact sheet *Removing Water from Gas Station Containment Sumps* (dnr.mo.gov/pubs/pub2640.htm).



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