

# UNDERGROUND STORAGE TANK SYSTEM SPILL CONTAINER TESTING REQUIREMENTS

Authority Cited: California Health and Safety Code (HSC); Title 23 California Code of Regulations (23 CCR)

## A. Scope

This document addresses testing of underground storage tank (UST) spill containers.<sup>1</sup> It supplements State Water Resources Control Board (SWRCB) Local Guidance Letter LG-166, which is available online at [www.waterboards.ca.gov/water\\_issues/programs/ust/leak\\_prevention/lgs/](http://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/lgs/). For compliance purposes, refer to the actual text of the regulations since the wording in this document summarizes requirements. All Unidocs forms and documents are available at [www.unidocs.org](http://www.unidocs.org).

## B. General Requirements for Spill Container Testing

1. Spill containers must be tested for tightness upon installation and every 12 months thereafter, and within 30 days of completion of a repair. [23 CCR §2637.1(a)]
2. Periodic testing must be completed anytime before or during the month the testing is required.<sup>2</sup> [23 CCR §2620(e)]
3. Testing must be performed by a UST Service Technician meeting the requirements of 23 CCR §2715(f). [23 CCR §2637.1(c)]
4. For UST Service Technicians conducting spill container testing, the requirement to be trained and certified by the equipment manufacturer may be obtained through certification by the manufacturer of the spill container being tested or through the developer of the testing equipment or test method being used. [23 CCR §2715(f)(2)(c)]
5. In the event that no training or certification exists that would satisfy the above criteria, the local UST Program Unified Program Agency (UPA) may approve comparable alternate training or certification. [23 CCR §2715(f)(2)(E)]

## C. Test Methods and Procedures

1. Spill container testing must be conducted using a testing procedure that demonstrates that the spill container is capable of containing the stored substance until it is detected and cleaned up. Testing must be performed as follows: [23 CCR §2637.1(b)]
  - In accordance with the manufacturer's guidelines or standards.
  - Using an applicable method specified in an industry code or engineering standard *if there are no manufacturer's guidelines or standards*.
  - Using a test method approved by a state-registered professional engineer (PE) *if there are no applicable manufacturer's guidelines or standards, industry codes, or engineering standards*.

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<sup>1</sup> These requirements apply to direct drop and remote fill spill containers. Vapor recovery spill buckets are regulated by the California Air Resources Board and Air Quality Management Districts, but are not regulated under regulations enforced by UPAs.

<sup>2</sup> Per State Water Resources Control Board guidance, "A UST owner or operator may change the due date of the test by performing testing early, but a test conducted late will not change the due date. A UST owner or operator that performs a test early may not return to the original due date and must perform the next test before the end of the new 12 calendar month period."

2. When hydrostatic testing is performed, all water must be removed from the spill container(s) at the conclusion of testing. Except in cases where water will be reused for additional testing, a hazardous waste determination must be performed to determine whether or not it is hazardous based on ignitability or toxicity (e.g., Benzene contamination) and it must be disposed of properly based on the results. [HSC §25291(e), 22 CCR §66262.11]
3. Water removed from spill containers, even if uncontaminated by hazardous materials, must not be disposed of to the storm water system. [Nonpoint Source (Urban Runoff) Ordinances]

**D. Industry Standards for Testing**

1. As noted above, the use of industry codes or engineering standards is only allowed in cases where the spill container manufacturer does not have their own guidelines or standards.
2. Industry codes must be published.
3. The following table summarizes spill container testing standards published in the Petroleum Equipment Institute’s (PEI) *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities* (PEI/RP1200-17):

Test Type	RP1200 Testing Standard
<b>Hydrostatic Test</b>	<ul style="list-style-type: none"> <li>• Add water to a level within 1.5” of the top of the spill bucket.</li> <li>• Measure the water level using a measuring stick or other method allowing measurement to the nearest 1/16”.</li> <li>• After 1 hour, measure the water level at the same location measured earlier.</li> <li>• Pass Criteria = Water level drops less than 1/8” and drain valve (if present) is leak-tight.</li> <li>• If the bucket has cracks, loose parts or separation of the bucket from the fill pipe, it is not liquid-tight. This visually indicates a test failure.</li> </ul>
<b>Vacuum Test of Single-Wall Spill Container</b>	<ul style="list-style-type: none"> <li>• Apply a test cover over the mouth of the spill container. Using an air-operated vacuum source or vacuum pump powered by an explosion-proof motor, apply vacuum of 30” water column. If 30” water column vacuum cannot be attained, the bucket fails the test.</li> <li>• Record the initial vacuum level shown on a vacuum gauge with minimum 0-50” water column range.</li> <li>• After 1 minute, record the ending vacuum level.</li> <li>• Pass Criteria = Ending vacuum level is 26” water column or greater.</li> <li>• If the bucket has cracks, loose parts or separation of the bucket from the fill pipe, it is not liquid-tight. This visually indicates a test failure.</li> </ul>

Test Type	RP1200 Testing Standard
<b>Vacuum Test of Double-Wall Spill Container</b>	<ul style="list-style-type: none"> <li>• Using an air-operated vacuum source or vacuum pump powered by an explosion-proof motor, apply vacuum of 15” water column to the bucket interstitial space. If 15” water column vacuum cannot be attained, the bucket fails the test.</li> <li>• Record the initial vacuum level shown on a vacuum gauge with minimum 0-30” water column range.</li> <li>• After 1 minute, record the ending vacuum level.</li> <li>• Pass Criteria = Ending vacuum level is 12” water column or greater.</li> <li>• If the bucket has cracks, loose parts or separation of the bucket from the fill pipe, it is not liquid-tight. This visually indicates a test failure.</li> </ul>

### E. Notification and Reporting

1. The UST owners/operator must notify the local UPA at least 48 hours prior to conducting spill container testing. [23 CCR §2637.1(f)]
2. Results of spill container testing must be recorded on the *Spill Container Testing Report Form* located in Appendix VIII of Title 23 California Code of Regulations. [The Unidocs document number is UN-108.] [23 CCR §2637.1(d)]
3. Copies of the testing procedures and all documentation required to determine the results must be attached to the *Spill Container Testing Report Form*. [23 CCR Appendix VIII]
4. Pass or fail, the UST owner/operator must submit a copy of the *Spill Container Testing Report Form* and required attachments to the local UPA within 30 days of completion of the test. [23 CCR §2637.1(e)]

### F. Record Keeping

The UST owner/operator must maintain spill container testing records on-site, or off-site at a readily accessible location *if approved by the local UPA*, for at least 36 months. These records must be made available, upon request within 36 hours, to the local UPA or the State Water Resources Control Board. [23 CCR §2712(b)(1)(F)]

### G. Repairs and Retrofits

Check with your local UPA regarding plan check and permit requirements before repairing or replacing spill containers. UPAs cannot approve a repair or upgrade unless it can be demonstrated that the UST system is structurally sound and the method of repair or upgrade will prevent unauthorized releases due to structural failure or corrosion during the operating life of the UST system. [23 CCR §2660(k)]