

General Overview of Spill Container Testing



February 2014

 **Tanknology**

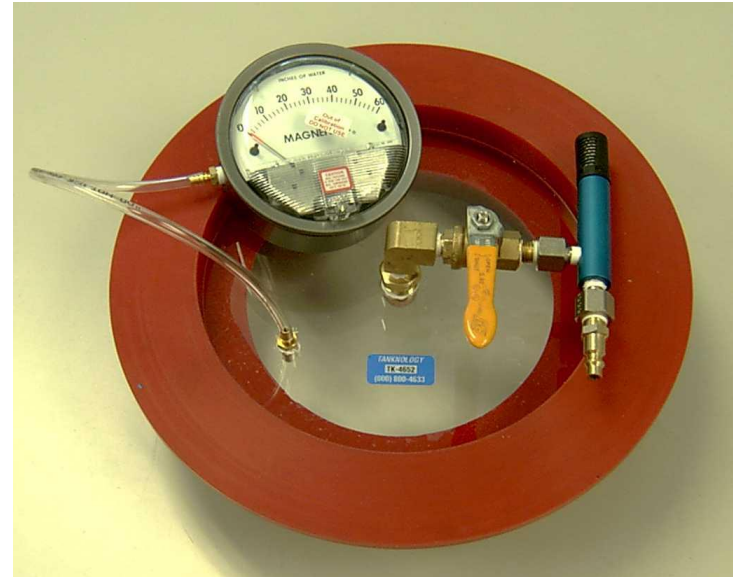
Spill Containment Test Methods

- Vacuum Testing
 - Tanknology's *Vacuum Spill Container Test*
 - Other Tests: Sherlock Tester
- Manual "Lake" Test
 - CA SWRCB guidelines
 - Manufacturer's guidelines
- Electronic or "Accelerated" Level Test
 - Tanknology's VPLT Sump Test System
 - Other Tests: Incon TS-STS Sump Test System
 - Other Test: Caldwell Level Sensor

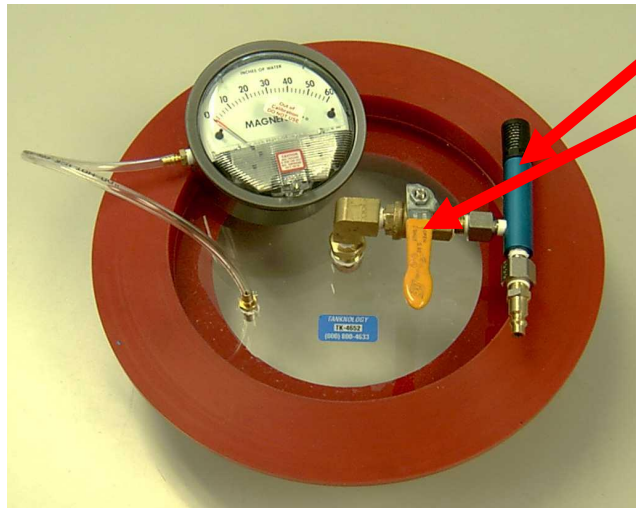


Vacuum Spill Container Test

- To meet the demands of the regulatory agencies Tanknology has developed the Vacuum Spill Container Test.
- These tests are quick and accurate and can be completed very easily.



Tanknology Vacuum Spill Container Test



- A cherne ball is placed in the riser and expanded to isolate the riser from the test.
- The dish is placed securely in the bucket
- Vacuum is pulled using an venturi device to **30" w.c.**
- A valve is used to isolate the venturi from the test once vacuum is established.
- The vacuum is monitored for exactly **1 minute** by watching the gauge.
- If **26" w.c.** or more is remaining then spill container passes.

Gauge must read Inches W.C. ("w.c.) – NOT Inches Mercury (Hg)



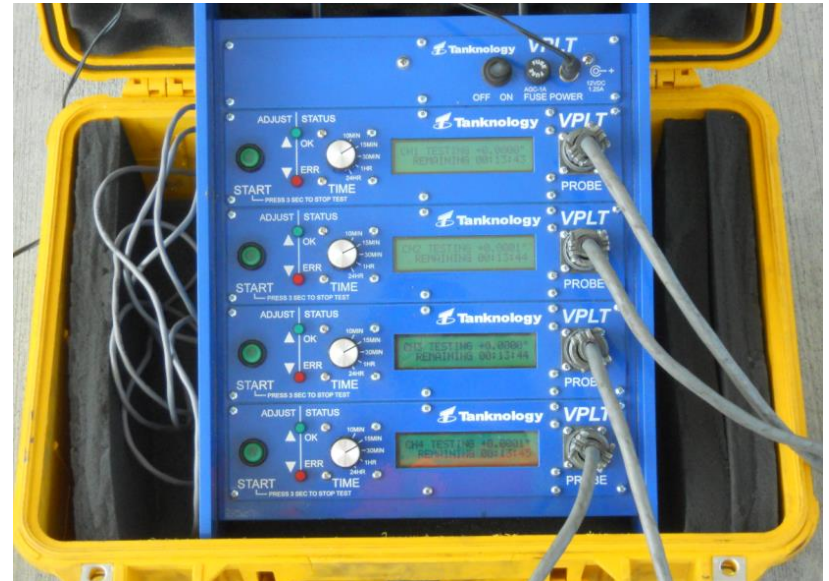
“Lake Testing” Spill Buckets

- Another method to test Spill Buckets is to fill them with water and conduct a hydrostatic test.
- In this case the bucket is filled with water up to the top ring. (The fill cap is put on securely or a cherne ball installed in the riser.)
- The drain valve is plugged if there is one to plug.
- The water level is marked.
- The test is conducted for **one hour** if there is **any measurable drop** in water level **the bucket fails**.



VPLT Test for Spill Containers

- Fill sump with water (test fluid)
 - Adjust level per MFG or customer or regulatory requirement
- Short Test Time
 - 10 minutes for Spill Containers
- Measures Level Change
 - 1/10,000" resolution
 - Compare to MFG protocols which specify level change/time
 - Or follow S.CA standard
 - < 0.002" for 2-15 min. tests



Incon TS-STS Test for Spill Containers

- Fill spill container with water (test fluid)
- Adjust level per MFG or customer or regulatory requirement
- Two 15 minutes tests
- Follow S.CA standard
- $< 0.002''$ for 2 tests



Double-Walled Spill Buckets

- The latest technology is the double walled spill containment system.
- They are tested per manufacturer specifications, which is often a vacuum test on the interstitial space.
- See procedures in QMS:
- 30" w.c. for 1 minute.
 - 26" w.c. or higher to pass.
- Or 15" w.c. for 5 minutes.
 - No allowable loss.

