INTRODUCTION

PEI RP1200

- Published in 2012
- Produced as an industry service
- Prepared in response to requests from UST regulators, testers and operators
- Represents a single authoritative source of information
INTRODUCTION

Origin

- Committee is made up of representatives from:
  - Equipment suppliers
  - Tank owners
  - Testing companies
  - Industry associations
  - Regulatory community
Purpose

Provide a concise summary of general guidelines for inspection and testing of __________ at UST facilities:

- Spill prevention
- Overfill equipment
- Leak detection
- Secondary containment
- Shear valves
- Emergency stops
Scope

- Test methods based on current industry practices
- Intended to demonstrate that a leak from the primary containment will be detected before it reaches the environment
- If AHJ requires testing to meet specific leak detection standards – follow the regulatory requirements
1. Introduction
2. Definitions
3. Safety
4. Tank Secondary Containment Integrity Testing
5. Piping Secondary Containment Integrity Testing
6. **Spill Bucket and Containment Sump Testing**
7. UST Overfill Equipment Verification, Inspection and Testing
8. Electronic Monitoring System Inspection and Testing
9. Automatic Line Leak Detectors
10. Shear Valve Inspection and Testing
11. Emergency Stop
12. Documentation

Appendices
Why spill buckets must be tested
SPILL BUCKET TESTING

RP1200 has test procedures for both single and double-walled spill buckets

Single-Walled
- Hydrostatic
- Vacuum

Double-walled
- Vacuum
SPILL BUCKET TESTING

Single-Walled Spill Bucket – Hydrostatic Test

- Visual Examination
- Fill with water
- Measure
- Monitor
SPILL BUCKET TESTING

Single-Walled Spill Bucket – Visual Examination

➢ Testing may not be necessary
SPILL BUCKET TESTING

Single-Walled Spill Bucket – Visual Examination

- Examine all components – Drain Valves/Fill Adapters & Caps
SPILL BUCKET TESTING

Single-Walled Spill Bucket – Hydrostatic Test

Fill with water to within 1 ½ inches of the top

- Drain valve may be removed and plugged
- Fill cap, adapter and drop tube may be removed and a plumber’s plug installed in the fill riser
SPILL BUCKET TESTING

Single-Walled Spill Bucket – Hydrostatic Test

Measure to the nearest $\frac{1}{16}$ inch

1½ inch
SPILL BUCKET TESTING

Single-Walled Spill Bucket – Hydrostatic Test

Monitor for 1 hour

PASS = less than 1/8” difference

FAIL = 1/8th inch or more change
SPILL BUCKET TESTING

Single-Walled Spill Bucket – Vacuum Test

- Clean and examine the spill bucket
- Install special test cover
- Pull a vacuum of 30” H₂O column
- Monitor vacuum for 1 minute

Pass = Ending vacuum level ≥ 26” H₂O column
Fail = Ending vacuum level < 26” H₂O column
Double-Walled Spill Bucket - Vacuum Test

- Clean and examine the spill bucket
- Pull vacuum of 15” H₂O column on interstice
- Monitor vacuum for 1 minute

Pass = Ending vacuum ≥ 12” H₂O column
Fail = Ending vacuum < 12” H₂O column
Double-Walled Spill Bucket - Vacuum Test

Testing the interstice of a double-walled spill bucket simultaneously tests both the primary and secondary.
CONTAINMENT SUMP TESTING

Test Procedure for Single-Walled Containment Sumps Only

- Double-Walled sumps rarely seen in U.S.

- May become more common as a result of EPA rule changes

- RP1200 probably amended to include double-walled test procedure in the next version (2017?)
CONTAINMENT SUMP TESTING

Single-Walled Containment Sump – Hydrostatic Test

- Visual Examination
- Fill with water
- Measure
- Monitor
CONTAINMENT SUMP TESTING

Containment Sump – Visual Examination

- Testing may not be necessary
CONTAINMENT SUMP TESTING

Containment Sump – Visual Examination

- Testing may not be possible without modifications
CONTAINMENT SUMP TESTING

Containment Sump – Fill With Water

- Water Level must be 4” above the highest penetration or seam
CONTAINMENT SUMP TESTING

Containment Sump – Measure

➤ Measure to nearest 1/16\textsuperscript{th} inch
CONTAINMENT SUMP TESTING

Containment Sump – Monitor

Test is for 1 Hour

PASS = Less than 1/8 inch change

FAIL = 1/8\textsuperscript{th} inch or greater change
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