



City of Anaheim
Fire Department
Fire Prevention Bureau



Specifications and Requirements

Subject: UNDERGROUND STORAGE TANK SECONDARY CONTAINMENT TESTING PROCEDURE

References: California Fire Code, 2007 Edition; California Health & Safety Code, Chapter 6.7; California Code of Regulations, Title 23, Division 3, Chapter 16

This document is provided as a general procedure. A permit from the Anaheim Fire Department is **not** required for secondary containment testing of an underground storage tank (UST). Refer to the appropriate laws and regulations for additional information.

Notification

Notification to conduct secondary containment testing of a UST system must be submitted and confirmed at least 48 hours prior to testing to the Anaheim Fire Department, Hazardous Materials Section, 201 S. Anaheim Blvd., #300, Anaheim, CA, 92805, or faxed to (714) 765-4608. The notification must include all of the following:

1. Proof of current City of Anaheim Business License
2. Copy of California Workers' Compensation Coverage
3. Proof of the following for tester:
 - a. Manufacturer trained and current certification for the monitoring equipment, and
 - b. State Contractor's License (A General, C-10, C-34, C-36, C-61, or D-40)
 - c. California Tank Testing License, or
 - d. Service Technician Certificate
4. Method(s) and equipment to be used for all testing

All notifications with accompanying documents will be evaluated for compliance with all applicable codes, regulations, and this procedure. If they are deemed unsatisfactory, a notice identifying any deficiencies will be returned. Once all of the above listed items have been satisfied, the testing time and date will be scheduled with the area Hazardous Materials Specialist (Specialist). The Specialist may be present for some or all of the testing.

Testing Procedures

All testing must be conducted as follows:

Tank

1. Thirty (30) minute stabilization period once pressure or vacuum is applied.
2. Five (5) psi of pressure using an inert gas for at least sixty (60) minutes, or ten (10) inches of mercury vacuum for at least sixty (60) minutes.
3. Equipment
 - a. Four (4) inch glycerin filled dial gauge with 0-15 psi (pressure) or 0-30 si (vacuum) with 0.5% span accuracy and calibrated at least every six (6) months, or
 - b. Digital gauge with display to 0.01 with 0.5% scale accuracy and calibrated at least every six (6) months.

Piping

1. Five (5) psi with an inert gas (pressure) for at least sixty (60) minutes after at least a ten (10) minute stabilization period.
2. Equipment
 - a. Four (4) inch glycerin filled dial gauge with 0-15 psi (pressure) with 0.5% span accuracy and calibrated at least every six (6) months, or
 - b. Digital gauge with display to 0.01 with 0.5% scale accuracy and calibrated at least every six (6) months.

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Sumps and Under Dispenser Containment

1. Remove debris and check for obvious failure points.
2. Consult with the Specialist if repairs are needed.
3. Wash system and remove this liquid while handling it properly.
4. Place test fluid to at least two (2) inches above the highest penetration. This includes electrical conduit as long as a junction box is not submersed.
5. Let test fluid stabilize for at least thirty (30) minutes before beginning testing.
6. Collect data for at least thirty (30) minutes in intervals not greater than fifteen (15) minutes using equipment that can measure the fluid level with an accuracy of +/- 0.002 inches and calibration certified in accordance with the manufacturer's recommendations, but not less than every six (6) months. Record data at the end of each interval, but the pass/fail determination must be based on the full thirty (30) minutes of data. Record all collected test data and site specific conditions such as fluid surface area, fluid temperature, air temperature, relative humidity, wind speed, noise, etc.
7. Further testing at different liquid levels is encouraged for identifying any failure point(s).

Pursuant to State regulations, "periodic testing of secondary containment systems shall be conducted using a test procedure that demonstrates that the system performs at least as well as it did upon installation." Failure to meet the test criteria as noted in this section would result in the testing being rejected and the requirement not satisfied.

For all test methods, the pass/fail threshold is determined primarily by the capability of the test equipment used. Consult with the Specialist as needed when making pass/fail determinations. Under normal conditions, no actual loss in pressure, vacuum, or liquid level is considered acceptable. Slight deviations due to site specific conditions may be allowed. A failed test should be immediately followed by a re-test, unless the failure is catastrophic. Should the tester conclude that the results were affected by specific parameters (i.e., weather conditions, traffic, tank system usage, etc.), re-testing another time and/or day may be necessary. Be sure to note all pertinent observations and feel free to discuss these with the Specialist.

The facility and UST(s) may remain in full operation if safety, test method(s), and site characteristics allow. Full or partial closure of the facility and/or tank system(s) may be required. Where feasible, leak detection must be maintained. Any generated wastes must be properly handled and disposed of in accordance with State and local requirements. All leak detection devices must be placed in proper position before tester leaves the facility.

Failed Test

Again, each secondary containment system is required to perform as it did at the time of installation. Should a secondary containment system fail the testing and/or any subsequent re-testing, the Specialist shall be notified immediately. The Specialist will then issue a Correction Notice. It is preferable to conduct minor repairs the same day and perform a re-test to avoid possible system shutdown and/or emptying of tank component(s). Additional testing on another date requires at least 48 hours notification, unless waived by the Specialist. Notification of an actual or potential release may be required.

Repairs/Modifications

All repairs are classified as system modifications, including minor "easy fixes," and must be approved by the Specialist. Some repairs will require a permit to be obtained from this and/or other agencies. The Specialist will advise on this issue. All repairs must be conducted in accordance with the manufacturer's recommendations for long-term fixes and be performed as soon as possible by qualified person(s). Methods and materials for all repairs must consider the compatibility and permeability of the contained substance and the expected lifetime of the system.

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When the Specialist determines a permit is required, an Anaheim Fire Department Hazardous Materials Section Permit Application form and applicable portions of the Anaheim Fire Department UST Installation and Modification Guidelines must be used. The Specialist will expedite the plan check process. The Specialist must approve all repairs and may authorize repairs to be initiated before the permit has been issued. Any subsequent testing of a repaired system will not be accepted until the permit is issued and repairs have been inspected.

Report

The testing report is required to be submitted to the Anaheim Fire Department using the State Water Resources Control Board Report forms (available on their website at www.swrcb.gov). The report must include all data collected as part of the testing and indicate any deviations from the proposed and approved methods. This report is due within thirty (30) days of each test date. All reports will be evaluated for completeness, methods used, site conditions, and results. A rejected report will result in the testing requirement not being satisfied.

For further information regarding these requirements contact: Hazardous Materials Section at (714) 765-4040 between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.