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Tuesday, March 28, 2017

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# Informational Workshop on Revising California Underground Storage Tank Regulations to Comply with New Federal Underground Storage Tank Regulations

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# Presentation Guide

- 40 Code of Federal Regulation, Chapter I, Subchapter I, Part 280 [Federal]
- California Code of Regulations, Title 23, Division 3, Chapter 16 [California]

# Topics of Proposed Changes

- Definitions
- Exclusions
- New Construction
- Upgrades
- Repair Requirements
- Secondary Containment Testing
- Spill Containment Testing
- Overfill Prevention System Inspection
- Compatibility of Underground Storage Tanks
- Monitoring
- Recordkeeping
- Certifications & Training
- Designated UST Operator

# Definitions

## 280.12 [Federal]

*Repair* means to restore to proper operating condition a tank, pipe, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment or other UST system component that has caused a release of product from the UST system or has failed to function properly.

## 2611 [California]

“Repair” means to restore ~~a tank or~~ to proper operating condition, an underground tank ~~storage~~ system component that has caused a release of a hazardous substance or has failed to function properly.

# Exclusions

## From the Term “Underground Storage Tank” Wastewater Treatment Tank

### 280.10(a) [Federal]

- (2) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act.

### 2621(a) [California]

- (8) A wastewater treatment tank ~~except a tank which is~~ that is part of a wastewater treatment facility regulated under section 402 or 307(b) of the Clean Water Act (33 U.S.C. Sec. 1251 et seq.) and is not part of an underground storage tank system.

# New Construction

- Overfill Prevention System
- Automatic Line Leak Detectors
  - Emergency Generator Tank Systems Exemption
  - All USTs
  - Annual Line Tightness Testing

# New Construction Overflow Prevention System Installation

## 280.20(c) [Federal]

(3) Flow restrictors used in vent lines may not be used to comply with paragraph (c)(1)(ii) of this section when overflow prevention is installed or replaced after October 13, 2015.

## 2635 [California]

(d) On and after the effective date of this subdivision, flow restrictors used in vent lines shall not be installed to comply with subdivision (c)(1) above.

# New Construction

## Automatic Line Leak Detector

### Emergency Generator Tank System Exemption

280.10(a)(1) [Federal]

(iii) UST systems that store fuel solely for use by emergency power generators installed after October 13, 2015, must meet all applicable requirements of this part at installation.

#### **Release Detection For Underground Storage Tanks And Piping: Straight Talk On Tanks, May 2016**

An automated interstitial monitoring system can be combined with an automatic shutoff system so that whenever the system detects a suspected release, the product flow in the piping is completely shut down. Under other methods in 40 CFR § 280.43(i)(2), EPA recognizes such a setup would meet the monthly monitoring requirement as well as the automatic line leak detector requirement.

2636(f) [California]

~~(6) For emergency generator tank systems, continuous monitoring systems as described in subdivision (1), which activate an audible and visual alarm in the event of a leak or a malfunction of the monitoring system satisfy the automatic line leak detector requirement of subdivision (2), provided that the monitoring system is checked at least daily by either remote electronic access or on-site visual inspections. A log of daily checks shall be available for local agency review upon request.~~



# New Construction

## Automatic Line Leak Detectors

### All USTs

#### 280.44 [Federal]

(a) Automatic line leak detectors. Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the leak detector must be conducted in accordance with § 280.40(a)(3).

#### 2636(f) [California]

(2) Automatic line leak detectors shall be installed on underground pressurized piping and shall be capable of detecting a ~~3~~ three- gallons per hour leak rate at 10 ~~psi~~ pounds per square inch within ~~1~~ one hour with a probability of detection of at least 95 percent and a probability of false alarm no greater than ~~5~~ five percent, and shall restrict or shut off the flow of product through the piping when a leak is detected or activate an audible and visual alarm.

# New Construction

## In Lieu of Annual Tightness Line Testing Automatic Line Leak Detectors Conditions

2636(f) [California]

(4) Continuous monitoring systems as described in subdivision (f)(1) and an automatic line leak detector described in subdivision (f)(2) satisfy the annual tightness testing requirement of subdivision (f)(43) if ~~both~~ all of the following conditions are met:

- (A) The continuous monitoring system shuts down the pump or stops the flow of product at the dispenser when a leak is detected in the under-dispenser containment.
- (B) The continuous monitoring system for all product piping other than that contained in the under-dispenser containment is fail safe, and shuts down the pump when a leak is detected.
- (C) The automatic line leak detector restricts or shuts off the flow of product through the piping when a leak is detected.

# Upgrades

- Applicability
- Overfill Prevention System
- Installed or Replaced After October 13, 2015
- Repaired After October 13, 2015
- Emergency Generator Tank Systems
- Piping

# Upgrades Applicability

2660 [California]

- (h) Owners and operators of underground storage tanks must meet the upgrade ~~Upgrade~~ requirements for underground storage tanks, spill containment, ~~and~~ overfill prevention systems, ~~and~~ underground piping, and shall be ~~completed no later than December 22, 1998. Requirements for~~ under-dispenser containment, ~~or under-dispenser spill control or containment~~ systems, ~~shall be completed no later than December 31, 2003~~ as applicable.

# Upgrades

## Overfill Prevention System

### Installed or Replaced After October 13, 2015

#### 280.20(c) [Federal]

(3) Flow restrictors used in vent lines may not be used to comply with paragraph (c)(1)(ii) of this section when overfill prevention is installed or replaced after October 13, 2015.

#### 2665 [California]

(b) Overfill prevention systems that uses flow restrictors on vent lines which have been installed, replaced, or repaired on or after October 13, 2015 shall be retrofitted with overfill prevention system that complies with section 2635(c)(1) and does not use flow restrictors on vent lines.

# Upgrades

## Overfill Prevention System

### Repaired After October 13, 2015

#### 280.20(c) [Federal]

(3) Flow restrictors used in vent lines may not be used to comply with paragraph (c)(1)(ii) of this section when overfill prevention is installed or replaced after October 13, 2015.

#### **Musts For USTs, November 2015**

If the ball float valve is not operating properly and cannot be repaired, the overfill device must be replaced...

#### 2661 [California]

(i) On and after the effective date of this subdivision, overfill prevention systems which uses flow restrictors in vent lines and which require repair must be upgraded in accordance with 2665(b).

# Upgrades

## Emergency Generator Tank System

### Automatic Line Leak Detectors

#### 280.10 [Federal]

(a) The requirements of this part apply to all owners and operators of an UST system as defined in § 280.12 except as otherwise provided in paragraphs (b) and (c) of this section.

(1) *Previously deferred UST systems.* Airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and UST systems that store fuel solely for use by emergency power generators must meet the requirements of this part as follows:

(ii) UST systems that store fuel solely for use by emergency power generators installed on or before October 13, 2015 must meet the subpart D requirements on or before October 13, 2018.

(iii) UST systems that store fuel solely for use by emergency power generators installed after October 13, 2015 must meet all applicable requirements of this part at installation.

#### 2666 [California]

(g) On and after the effective date of this subdivision, emergency generator tank systems shall be retrofitted with an automatic line leak detector that complies with sections 2636(f)(2) according to one of the following:

(1) For emergency generator tank systems installed before October 13, 2015, by October 13, 2018; or

(2) For emergency generator tank systems installed on or after October 13, 2015, immediately.

# Upgrades Piping

## 280.20 [Federal]

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements. In addition, except for suction piping that meets the requirements of § 280.41(b)(1)(ii)(A) through (E), tanks and piping installed or replaced after April 11, 2016 must be secondarily contained and use interstitial monitoring in accordance with § 280.43(g) of this part. Secondary containment must be able to contain regulated substances leaked from the primary containment until they are detected and removed and prevent the release of regulated substances to the environment at any time during the operational life of the UST system. For cases where the piping is considered to be replaced, the entire piping run must be secondarily contained.

## 280.12 Replaced means

(b) For piping - to remove 50 percent or more of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies independently to each piping run.

## 2666 [California]

(f) Except for vent lines, vapor recovery lines, tank riser piping, and suction piping meeting the requirements of section 2636(a)(3), buried single-walled piping which is replaced or repaired on or after April 11, 2016 shall be retrofitted with secondary containment and continuous interstitial monitoring that complies with the requirements of article 3.



# Repair Requirements

- Applicability
- Buried Single-Walled Pipe
- Testing and Inspecting After a Repair
- Secondary Containment
- Spill Containment
- Overfill Prevention System

# Repair Requirements Applicability

## 280.12 [Federal]

Repair means to restore to proper operating condition a tank, pipe, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment or other UST system component that has caused a release of product from the UST system or has failed to function properly.

## 2660 [California]

(b) Section 2661 describes the requirements for repairing underground storage tanks, piping, or other underground storage tank system components that have ceased to function properly or caused an unauthorized release as defined in sections 25294 and 25295 of the Health and Safety Code.

# Repair Requirements Buried Single-Walled Pipe

## 280.20 [Federal]

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements. In addition, except for suction piping that meets the requirements of § 280.41(b)(1)(ii)(A) through (E), tanks and piping installed or replaced after April 11, 2016 must be secondarily contained and use interstitial monitoring in accordance with § 280.43(g) of this part. Secondary containment must be able to contain regulated substances leaked from the primary containment until they are detected and removed and prevent the release of regulated substances to the environment at any time during the operational life of the UST system. For cases where the piping is considered to be replaced, the entire piping run must be secondarily contained.

## 2661 [California]

(h) On and after the effective date of this subdivision, except for vent lines, vapor recovery lines, riser piping, and suction piping meeting the requirements of section 2636(a)(3), buried single-walled pipe which requires repair must be upgraded in accordance with 2666(f).

## 2666 [California]

(f) Except for vent lines, vapor recovery lines, tank riser piping, and suction piping meeting the requirements of section 2636(a)(3), buried single-walled piping which is replaced or repaired on or after April 11, 2016 shall be retrofitted with secondary containment and continuous interstitial monitoring that complies with the requirements of article 3.

# Repair Requirements

## Testing After a Repair

### Secondary Containment

#### 280.33 [Federal]

(d) Repairs to secondary containment areas of tanks and piping used for interstitial monitoring and to containment sumps used for interstitial monitoring of piping must have the secondary containment tested for tightness according to the manufacturer's instructions, a code of practice developed by a nationally recognized association or independent testing laboratory, or according to requirements established by the implementing agency within 30 days following the date of completion of the repair. All other repairs to tanks and piping must be tightness tested in accordance with § 280.43(c) and § 280.44(b) within 30 days following the date of the completion of the repair except as provided in paragraphs (d)(1) through (3), of this section:

#### 2661 [California]

(j) Secondary containment which has been repaired shall be tested for tightness after the completion of the repair and six months after in accordance with section 2637.

# Repair Requirements

## Testing After a Repair

### Spill Containment

#### 280.33 [Federal]

(f) Within 30 days following any repair to spill or overfill prevention equipment, the repaired spill or overfill prevention equipment must be tested or inspected, as appropriate, in accordance with § 280.35 to ensure it is operating properly.

#### 2661 [California]

(k) Spill containment which has been repaired shall be tested for tightness after the completion of the repair in accordance with section 2637.1.

# Repair Requirements

## Inspecting After a Repair

### Overfill Prevention System

#### 280.33 [Federal]

(f) Within 30 days following any repair to spill or overfill prevention equipment, the repaired spill or overfill prevention equipment must be tested or inspected, as appropriate, in accordance with § 280.35 to ensure it is operating properly.

#### 2661 [California]

(l) Overfill prevention systems which have been repaired shall be inspected after the completion of the repair in accordance with section 2637.2.

# Secondary Containment Testing

- After a Repair
- Discontinuing VPH Monitoring
- Recording Results
- Response to Failed Results

# Secondary Containment Testing After a Repair

## 280.33 [Federal]

(d) Repairs to secondary containment areas of tanks and piping used for interstitial monitoring and to containment sumps used for interstitial monitoring of piping must have the secondary containment tested for tightness according to the manufacturer's instructions, a code of practice developed by a nationally recognized association or independent testing laboratory, or according to requirements established by the implementing agency within 30 days following the date of completion of the repair.

## 2637(a) [California]

(1) Except for secondary containment systems and components that meet paragraph (2) below, secondary ~~Secondary~~ containment systems and components installed on or after January 1, 2001 shall be tested ~~upon~~ at all of the following times:

(B) Within 30 days of the completion of a repair;

(C) ~~6~~ Six months after an installation or a repair, as applicable;



# Secondary Containment Testing

## Discontinuing VPH Monitoring

### 280.35 [Federal]

(a) Owners and operators of UST systems with spill and overflow prevention equipment and containment sumps used for interstitial monitoring of piping must meet these requirements to ensure the equipment is operating properly and will prevent releases to the environment:

(1) Spill prevention equipment (such as a catchment basin, spill bucket, or other spill containment device) and containment sumps used for interstitial monitoring of piping must prevent releases to the environment by meeting one of the following:

(i) The equipment is double walled and the integrity of both walls is periodically monitored at a frequency not less than the frequency of the walkthrough inspections described in § 280.36. Owners and operators must begin meeting paragraph (a)(1)(ii) of this section and conduct a test within 30 days of discontinuing periodic monitoring of this equipment; or

### 2637 [California]

(a)(3) Secondary containment tests shall be performed on secondary containment systems or components in accordance with this section within 30 days of discontinuing a method of continuous monitoring that automatically monitors the integrity of both the primary and secondary containment.

# Secondary Containment Testing Recording Results

## 280.35(c) [Federal]

Owners and operators must maintain records as follows (in accordance with § 280.34) for spill prevention equipment, containment sumps used for interstitial monitoring of piping, and overfill prevention equipment:

## 2637 [California]

(e) The results of the secondary containment test shall be recorded on the “Secondary Containment Testing Report Form” located in the Appendix.

# Secondary Containment Testing

## Response to Failed Results

### 280.33 [Federal]

(d) Repairs to secondary containment areas of tanks and piping used for interstitial monitoring and to containment sumps used for interstitial monitoring of piping must have the secondary containment tested for tightness according to the manufacturer's instructions, a code of practice developed by a nationally recognized association or independent testing laboratory, or according to requirements established by the implementing agency within 30 days following the date of completion of the repair.

### Health & Safety Code, §25288

(d) Within 60 days after receiving a compliance report or special inspection report prepared in accordance with subdivision (b) or (c), respectively, the permit holder shall file with the local agency a plan to implement all recommendations contained in the compliance report or shall demonstrate, to the satisfaction of the local agency, why these recommendations should not be implemented. Any corrective action conducted pursuant to the recommendations in the report shall be taken pursuant to Sections 25296.10 and 25299.36.

### 2637 [California]

(f) If the results of the secondary containment test indicate that the secondary containment is not tight, the owner or operator shall take appropriate actions to repair the secondary containment and repeat the test within 60 days of the failed test.

# Spill Containment Testing

- After repair
- Test method
- Qualified tester
- Recording results
- Submit results
- Response to failed results
- 48 hour notification

# Spill Containment Testing After a Repair

## 280.33 [Federal]

(f) Within 30 days following any repair to spill or overfill prevention equipment, the repaired spill or overfill prevention equipment must be tested or inspected, as appropriate, in accordance with § 280.35 to ensure it is operating properly.

## 2637.1 [California]

(a) Spill containment shall be tested for tightness at all of the following times:  
(2) Within 30 days of the completion of a repair; and

# Spill Containment Testing Test Method

## 280.35(a) [Federal]

Owners and operators of UST systems with spill and overflow prevention equipment and containment sumps used for interstitial monitoring of piping must meet these requirements to ensure the equipment is operating properly and will prevent releases to the environment:

- (1)(ii) The spill prevention equipment and containment sumps used for interstitial monitoring of piping are tested at least once every three years to ensure the equipment is liquid tight by using vacuum, pressure, or liquid testing in accordance with one of the following criteria:
  - (A) Requirements developed by the manufacturer (Note: Owners and operators may use this option only if the manufacturer has developed requirements);
  - (B) Code of practice developed by a nationally recognized association or independent testing laboratory; or
  - (C) Requirements determined by the implementing agency to be no less protective of human health and the environment than the requirements listed in paragraphs (a)(1)(ii) (A) and (B) of this section.

# Spill Containment Testing

## Test Method

(cont.)

### 2637.1 [California]

(b) Spill containment tests shall be conducted using a testing procedure that demonstrates that the spill containment is capable of containing the stored substance until it is detected and cleaned up. These tests shall be performed in accordance with manufacturer's guidelines or standards. If there are no manufacturer's guidelines or standards, the spill containment must be tested using an applicable method specified in an industry code or engineering standard. If there are no applicable manufacturers guidelines, industry codes, or engineering standards a test method approved by a state registered professional engineer shall be used.

**This requirement is consistent with the current regulations on selecting a test method for demonstrating that containment is capable of containing the stored substance until it is detected and cleaned up.**

# Spill Containment Testing Qualified Tester

2637.1 [California]

(c) Spill containment tests shall be performed by a service technician meeting the requirements of section 2715(f).

2715(f)

Any individual performing the work of a service technician must meet all of the following requirements:

- (1) Possess or be employed by a person who possesses a current Class "A" General Engineering Contractor License, C-10 Electrical Contractor License, C-34 Pipeline Contractor License, C-36 Plumbing Contractor License, or a C-61 (D40) Limited Specialty Service Station Equipment and Maintenance Contractor License issued by the Contractors State License Board, as applicable. Individuals who possess a tank testing license issued by the State Water Resources Control Board satisfy the licensing requirement of this paragraph.
- (2) Be trained and certified by the manufacturer of the equipment as follows:
  - (A) For service technicians conducting secondary containment or spill containment testing pursuant to sections 2637 or 2637.1(a), this training and certification may be obtained through the developer of the testing equipment or test method being used, or through the manufacturer of the secondary containment or spill containment system being tested, as applicable.  
(C) In the event that no training or certification exists that would satisfy the criteria of subparagraph (i)(2)(A), or (B), or (C) above, the local agency may approve comparable alternate training or certification.
- (3) Renew all training and certifications issued by the manufacturer, through completion of a manufacturer's refresher course, at the time interval recommended by the manufacturer, or at least once every 36 months, whichever is shorter.
- (4) Effective July 1, 2005, service Service technicians shall possess or work under the direct and personal supervision of an individual physically present at the work site who possesses a current certificate from the International Code Council (ICC), indicating he or she the individual has passed the California UST Service Technician exam. If the California UST Service Technician exam is not available by July 1, 2004, this requirement shall be effective twelve 12 months after the date the exam is available. The individual shall renew the ICC certification, by passing the California UST Service Technician exam, every 24 months.



# Spill Containment Testing Qualified Tester

- These requirements ensure that testing is conducted properly such that the results of the test are reliable.
- Training is consistent with the minimum industry-established training requirement for an UST system service technician.
- Retraining is needed to ensure that service technicians are adequately trained, and remain current with respect to the equipment installed at the facility being tested.

# Spill Containment Testing Recording Results

## 280.35 [Federal]

(c) Owners and operators must maintain records as follows (in accordance with § 280.34) for spill prevention equipment, containment sumps used for interstitial monitoring of piping, and overflow prevention equipment:

## 2637.1 [California]

(d) The results of the spill containment test shall be recorded on the “Spill Containment Testing Report Form” located in the Appendix.

# Spill Containment Testing Submit Results

## 2637.1 [California]

(e) Underground storage tank owners and operators shall submit a copy of the “Spill Containment Testing Report Form” to the local agency within 30 days of the completion of the spill containment test.

**Submitting a copy to local agency is needed in order to keep local agencies updated on the status of the site, and are consistent with the current regulations on notification and reporting requirements for testing.**

# Spill Containment Testing

## Response to Failed Results

### 280.33 [Federal]

(f) Within 30 days following any repair to spill or overfill prevention equipment, the repaired spill or overfill prevention equipment must be tested or inspected, as appropriate, in accordance with § 280.35 to ensure it is operating properly.

### 25288 [California, Health & Safety Code, Division 20, Chapter 6.7]

(d) Within 60 days after receiving a compliance report or special inspection report prepared in accordance with subdivision (b) or (c), respectively, the permit holder shall file with the local agency a plan to implement all recommendations contained in the compliance report or shall demonstrate, to the satisfaction of the local agency, why these recommendations should not be implemented. Any corrective action conducted pursuant to the recommendations in the report shall be taken pursuant to Sections 25296.10 and 25299.36.

### 2637.1 [California]

(f) If the results of the spill containment test indicate that the spill containment is not tight, the owner or operator shall take appropriate actions to repair the spill containment and repeat the test within 60 days of the failed test.

# Spill Containment Testing

## 48 Hour Notification

2637.1 [California]

(g) Owners and operators of underground storage tanks must notify the local agency at least 48 hours prior to conducting the spill containment test, unless this notification requirement is waived by the local agency.

**A 48 hour notification to the local agency is needed in order to keep local agencies updated on the status of the site, and are consistent with the current regulations on notification and reporting requirements for testing.**

# Overflow Prevention System Inspection

- Frequency
- Inspection method
- Qualified inspector
- Recording results
- Submit results
- Response to failed results
- 48 hour notification
- Exemption

# Overfill Prevention System Inspections

## Frequency

### 280.35(a) [Federal]

(2) Overfill prevention equipment must be inspected at least once every three years. At a minimum, the inspection must ensure that overfill prevention equipment is set to activate at the correct level specified in § 280.20(c) and will activate when regulated substance reaches that level. Inspections must be conducted in accordance with one of the criteria in paragraph (a)(1)(ii)(A)-(C) of this section.

(b) Owners and operators must begin meeting these requirements as follows:

(1) For UST systems in use on or before October 13, 2015, the initial spill prevention equipment test, containment sump test and overfill prevention equipment inspection must be conducted not later than October 13, 2018.

(2) For UST systems brought into use after October 13, 2015, these requirements apply at installation.

# Overfill Prevention System Inspections

## Frequency (cont.)

### 2637.2(a) [California]

- (1) Underground storage tanks installed prior to October 13, 2015 shall have the overfill prevention system inspected at all of the following times:
  - (A) Once by October 13, 2018;
  - (B) Within 30 days of the completion of a repair to the overfill prevention system; and
  - (C) At least once every 36 months
- (2) Underground storage tanks installed on or after October 13, 2015 shall have the overfill prevention system inspected at all of the following times:
  - (A) Immediately after the effective date of this section or upon installation of the system, as applicable;
  - (B) Within 30 days of the completion of a repair to the overfill prevention system; and
  - (C) At least once every 36 months.



# Overfill Prevention System Inspection

## Inspection Method

280.35(a) [Federal]

(2) Overfill prevention equipment must be inspected at least once every three years. At a minimum, the inspection must ensure that overfill prevention equipment is set to activate at the correct level specified in § 280.20(c) and will activate when regulated substance reaches that level. Inspections must be conducted in accordance with one of the criteria in paragraph (a)(1)(ii)(A)-(C) of this section.

- (1)(ii)(A) Requirements developed by the manufacturer (Note: Owners and operators may use this option only if the manufacturer has developed requirements);
- (B) Code of practice developed by a nationally recognized association or independent testing laboratory; or
- (C) Requirements determined by the implementing agency to be no less protective of human health and the environment than the requirements listed in paragraphs (a)(1)(ii) (A) and (B) of this section.

# Overfill Prevention System Inspection Inspection Method (cont.)

## 2637.2 [California]

(b) Overfill prevention system inspections shall be conducted using an inspection procedure that demonstrates that the overfill prevention system is set to activate at the correct level specified in section 2635(c)(1) and will activate when regulated stored substance reaches that level. These inspections shall be performed in accordance with manufacturer's guidelines or standards. If there are no manufacturer's guidelines or standards, the overfill prevention system must be inspected using an applicable method specified in an industry code or engineering standard. If there are no applicable manufacturers guidelines, industry codes, or engineering standards an inspection method approved by a state registered professional engineer shall be used.

**This requirement is consistent with the current regulations on selecting a test method.**

# Overfill Prevention System Inspection Qualified Inspector

2637.2 [California]

(c) Overfill prevention system inspections shall be performed by a service technician meeting the requirements of section 2715(f).

2715(f)

Any individual performing the work of a service technician must meet all of the following requirements:

- (1) Possess or be employed by a person who possesses a current Class "A" General Engineering Contractor License, C-10 Electrical Contractor License, C-34 Pipeline Contractor License, C-36 Plumbing Contractor License, or a C-61 (D40) Limited Specialty Service Station Equipment and Maintenance Contractor License issued by the Contractors State License Board, as applicable. Individuals who possess a tank testing license issued by the State Water Resources Control Board satisfy the licensing requirement of this paragraph.
- (2) Be trained and certified by the manufacturer of the equipment as follows:
  - (C) For service technicians conducting overfill prevention system inspections pursuant to section 2637.2, this training and certification may be obtained through the developer of the inspection method being used, or through the manufacturer of the overfill prevention system being inspected, as applicable.
  - (C) In the event that no training or certification exists that would satisfy the criteria of subparagraph ~~(i)(2)~~(A), ~~or~~ (B), or (C) above, the local agency may approve comparable alternate training or certification.
- (3) Renew all training and certifications issued by the manufacturer, through completion of a manufacturer's refresher course, at the time interval recommended by the manufacturer, or at least once every 36 months, whichever is shorter.
- (4) ~~Effective July 1, 2005, service~~ Service technicians shall possess or work under the direct and personal supervision of an individual physically present at the work site who possesses a current certificate from the International Code Council (ICC), indicating ~~he or she~~ the individual has passed the California UST Service Technician exam. ~~If the California UST Service Technician exam is not available by July 1, 2004, this requirement shall be effective twelve 12 months after the date the exam is available.~~ The individual shall renew the ICC certification, by passing the California UST Service Technician exam, every 24 months.

# Overfill Prevention System Inspection Qualified Inspector

- These requirements ensure that inspections are conducted properly such that the results of the inspection are reliable.
- Training is consistent with the minimum industry-established training requirement for an UST system service technician.
- Retraining is needed to ensure that service technicians are adequately trained, and remain current with respect to the equipment installed at the facility being tested.

# Overfill Prevention System Inspection Recording Results

## 280.35 [Federal]

(c) Owners and operators must maintain records as follows (in accordance with § 280.34) for spill prevention equipment, containment sumps used for interstitial monitoring of piping, and overfill prevention equipment:

## 2637.2 [California]

(d) The results of the overfill prevention system inspection shall be recorded on the “Overfill Prevention System Inspection Report Form” located in the Appendix.

# Overfill Prevention System Inspection Submit Results

2637.2 [California]

(e) Underground storage tank owners and operators shall submit a copy of the “Overfill Prevention System Inspection Report Form” to the local agency within 30 days of the completion of the overfill prevention system inspection.

**Submitting a copy to local agency is needed in order to keep local agencies updated on the status of the site, and are consistent with the current regulations on notification and reporting requirements for testing.**

# Overfill Prevention System Inspection

## Response to Failed Results

### 280.33 [Federal]

(f) Within 30 days following any repair to spill or overfill prevention equipment, the repaired spill or overfill prevention equipment must be tested or inspected, as appropriate, in accordance with § 280.35 to ensure it is operating properly.

### 25288 [California, Health & Safety Code, Division 20, Chapter 6.7]

(d) Within 60 days after receiving a compliance report or special inspection report prepared in accordance with subdivision (b) or (c), respectively, the permit holder shall file with the local agency a plan to implement all recommendations contained in the compliance report or shall demonstrate, to the satisfaction of the local agency, why these recommendations should not be implemented. Any corrective action conducted pursuant to the recommendations in the report shall be taken pursuant to Sections 25296.10 and 25299.36. 280.33

### 2637.2 [California]

(f) If the results of the overfill prevention system inspection indicate that the overfill prevention system is not functioning properly, the owner or operator shall take appropriate actions to repair the overfill prevention system and repeat the overfill prevention system inspection within 60 days of the initial overfill prevention system inspection.

# Overfill Prevention System Inspection

## 48 Hour Notification

2637.2 [California]

(g) Owners and operators of underground storage tanks must notify the local agency at least 48 hours prior to conducting the inspection, unless this notification requirement is waived by the local agency.

**A 48 hour notification to the local agency is needed in order to keep local agencies updated on the status of the site, and are consistent with the current regulations on notification and reporting requirements for testing.**



# Overfill Prevention System Inspection

## Exemption to Overfill Prevention System Inspection

### 280.20(c) [Federal]

- (2) Owners and operators are not required to use the spill and overfill prevention equipment specified in paragraph (c)(1) of this section if:
- (ii) The UST system is filled by transfers of no more than 25 gallons at one time.

### 2637.2 [California]

(h) Underground storage tank systems that meet section 2635(c)(2) are exempt from periodic overfill prevention system inspections.

# Topics of Proposed Changes

- ~~Definitions~~
- ~~Exclusions~~
- ~~New Construction~~
- ~~Upgrades~~
- ~~Repair Requirements~~
- ~~Secondary Containment Testing~~
- ~~Spill Containment Testing~~
- ~~Overfill Prevention System Inspection~~
- Compatibility of Underground Storage Tanks
- Monitoring
- Recordkeeping
- Certifications & Training
- Designated UST Operator

# Compatibility of Underground Storage Tank

- Notification
- Upgrades and Repairs
- Substances with Concentrations Greater Than E10 and B5
  - Existing Underground Storage Tanks
    - Demonstrating Compatibility
    - Primary Containment
    - Under-Dispenser Containment
    - All Other Components
  - New Underground Storage Tanks
    - Demonstrating Compatibility
    - All Other Components

# Compatibility of Underground Storage Tanks Notification

## 280.32 [Federal]

(b) Owners and operators must notify the implementing agency at least 30 days prior to switching to a regulated substance containing greater than 10 percent ethanol, greater than 20 percent biodiesel, or any other regulated substance identified by the implementing agency. In addition, owners and operators with UST systems storing these regulated substances must meet one of the following codes to comply:

## 2711 [California]

(c) After the effective date of this subdivision, the owner or operator shall notify the local agency at least 30 days before changing the substance currently stored in the underground storage tank or tanks. The notification shall be in writing and include the substance to be stored, the date storage of the substance will begin, documentation demonstrating compliance with sections 2638(a), 2643(f), and 2631(b) and 2631(d) or 2640.1 as applicable.

# Compatibility of Underground Storage Tanks Upgrades and Repairs

## 280.32 [Federal]

(a) Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system.

## 2660 [California]

(m) Materials used in repairs and upgrades shall be compatible with the ~~existing~~ underground storage tank system materials and shall not be subject to deterioration due to contact with the hazardous substances being stored.

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5 Existing Underground Storage Tanks Demonstrating Compatibility

## 280.32 [Federal]

- (b) Owners and operators must notify the implementing agency at least 30 days prior to switching to a regulated substance containing greater than 10 percent ethanol, greater than 20 percent biodiesel, or any other regulated substance identified by the implementing agency. In addition, owners and operators with UST systems storing these regulated substances must meet one of the following codes to comply:
- (1) Demonstrate compatibility of the UST system (including the tank, piping, containment sumps, pumping equipment, release detection equipment, spill equipment, and overfill equipment). Owners and operators may demonstrate compatibility of the UST system by using one of the following options:

## 2640.1 [California]

- (a) Owners or operators shall demonstrate compatibility with the substance to be stored containing greater than 10 percent ethanol or 5 percent biodiesel by submitting to the local agency all of the following:

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5 Existing Underground Storage Tanks Primary Containment

## 280.32(b)(1) [Federal]

(i) Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the requirements regulated substance stored; or

## 2640.1(a) [California]

(1) For all primary containment, including any fittings, coatings, or linings, and special accessories, used to construct the primary containment, a written approval from an independent testing organization, in accordance with industry codes, voluntary consensus standards, or engineering standards, for use with the substance to be stored;

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5 Existing Underground Storage Tanks Under-Dispenser Containment

## 280.32(b) [Federal]

- (1)(i) Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored; or
- (2) Use another option determined by the implementing agency to be no less protective of human health and the environment than the options listed in paragraph (b)(1) of this section.

## 2640.1(a) [California]

### (2) For under-dispenser containment, one of the following:

- (A) A written approval from an independent testing organization, in accordance with industry codes, voluntary consensus standards, or engineering standards, for use with the substance to be stored; or
- (B) A written approval from a state registered professional engineer for use with the substance to be stored. The approval shall contain an affirmative statement of compatibility with the substance and a specified acceptable range of blends or concentrations of the substance. The under-dispenser containment shall be designed and constructed according to an engineering specification. The engineering specification shall include the construction procedures. Materials used to construct the under-dispenser containment system shall have sufficient thickness, density, and corrosion resistance to prevent structural weakening or damage to the under-dispenser containment system as a result of contact with the substance; and



# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5 Existing Underground Storage Tanks All Other Components

## 280.32(b)(1) [Federal]

- (i) Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored; or
  - (ii) Equipment or component manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the equipment or component is compatible with, and be from the equipment or component manufacturer; or
- (2) Use another option determined by the implementing agency to be no less protective of human health and the environment than the options listed in paragraph (b)(1) of this section.

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5 Existing Underground Storage Tanks All Other Components (cont.)

## 2640.1(a) [California]

(3) For all other components used to construct the underground storage tank system, such as spill containment, overfill prevention system equipment, and ancillary equipment, one of the following:

(A) A written approval from an independent testing organization, in accordance with industry codes, voluntary consensus standards, or engineering standards, for use with the substance to be stored;

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5 Existing Underground Storage Tanks All Other Components (cont.)

## 2640.1(a)(3) [California]

(B) A written approval from a state registered professional engineer for use with the substance to be stored. The approval shall contain an affirmative statement of compatibility with the substance and a specified acceptable range of blends or concentrations of the substance. The component shall be designed and constructed according to an engineering specification. The engineering specification shall include the construction procedures. Materials used to construct the component shall have sufficient corrosion resistance to prevent damage to the component as a result of contact with substance; or

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5 Existing Underground Storage Tanks All Other Components (cont.)

## 2640.1(a)(3) [California]

(C) A written affirmative statement of compatibility from the manufacturer(s) of the components for use with the substance to be stored. The statement shall contain an affirmative statement of compatibility with the substance and a specified acceptable range of blends or concentrations of the substance.

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5 New Underground Storage Tanks Demonstrating Compatibility

## 280.32 [Federal]

(b) Owners and operators must notify the implementing agency at least 30 days prior to switching to a regulated substance containing greater than 10 percent ethanol, greater than 20 percent biodiesel, or any other regulated substance identified by the implementing agency. In addition, owners and operators with UST systems storing these regulated substances must meet one of the following codes to comply:

(1) Demonstrate compatibility of the UST system (including the tank, piping, containment sumps, pumping equipment, release detection equipment, spill equipment, and overfill equipment). Owners and operators may demonstrate compatibility of the UST system by using one of the following options:

## 2631 [California]

(l) After the effective date of this subdivision, owners or operators shall demonstrate compatibility with the substance stored for all components used to construct the underground storage tank system not subject to subdivisions (b) or (d), such as spill containment, overfill prevention system equipment, and ancillary equipment, by submitting to the local agency one of the following:

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5

## New Underground Storage Tanks

### All Other Components

#### 280.32(b)(1) [Federal]

- (i) Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored; or
  - (ii) Equipment or component manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the equipment or component is compatible with, and be from the equipment or component manufacturer; or
- (2) Use another option determined by the implementing agency to be no less protective of human health and the environment than the options listed in paragraph (b)(1) of this section.

# Compatibility of Underground Storage Tanks Substances with Concentrations Greater Than E10 and B5

## New Underground Storage Tanks

### All Other Components

2631(I) [California]

- (1) A written approval from an independent testing organization, in accordance with industry codes, voluntary consensus standards, or engineering standards, for use with the substance to be stored;
- (2) A written approval for use with the substance to be stored from a state registered professional engineer. The approval shall contain an affirmative statement of compatibility with the substance and a specified acceptable range of blends or concentrations of the substance. The component shall be designed and constructed according to an engineering specification. The engineering specification shall include the construction procedures. Materials used to construct the component shall have sufficient corrosion resistance to prevent damage to the component as a result of contact with substance; or
- (3) A written affirmative statement of compatibility from the manufacturer(s) of the components for use with the substance to be stored. The statement shall contain an affirmative statement of compatibility with the substance and a specified acceptable range of blends or concentrations of the substance.

# Monitoring

- In-Tank Monitoring Methods
- Statistical Inventory Reconciliation
- Continuous In-Tank Leak Detection
- Manual Tank Gauging
- Groundwater and Vadose Zone
- Monitoring System Certification



# Monitoring

## In-Tank Monitoring Methods

### Results Every 30 Days

#### 280.41 [Federal]

(a) Tanks must be monitored for releases as follows:

- (1) Tanks installed on or before April 11, 2016 must be monitored for releases at least every 30 days using one of the methods listed in § 280.43 (d) through (i) except that:

#### [California]

At least once ~~per month~~ every 30 days

2643(b)(1) Automatic tank gauge

2643(b)(2) Automatic tank gauge plus manual inventory reconciliation

2643(b)(3) Statistical inventory reconciliation plus tank integrity testing

2643(b)(4) Manual inventory reconciliation plus tank integrity testing

2643(b)(5) Continuous in-tank leak detection

# Monitoring

## Statistical Inventory Reconciliation

### 280.43 [Federal]

(h) Statistical inventory reconciliation. Release detection methods based on the application of statistical principles to inventory data similar to those described in § 280.43(a) must meet the following requirements:

- (1) Report a quantitative result with a calculated leak rate;
- (2) Be capable of detecting a leak rate of 0.2 gallon per hour or a release of 150 gallons within 30 days; and
- (3) Use a threshold that does not exceed one-half the minimum detectible leak rate.

### 2643(b) [California]

(3) Statistical inventory reconciliation plus tank integrity testing - Statistical inventory reconciliation shall be conducted at least once ~~per month~~ every 30 days in accordance with section 2646.1 and shall be capable of detecting a release of 0.2 gallons per hour and reporting a quantitative leak rate using a threshold value that does not exceed one-half the minimum detectible leak rate. In addition, a tank integrity test shall be conducted at least once every ~~two years~~ 24 months in accordance with section 2643.1.

# Monitoring

## Statistical Inventory Reconciliation

(cont.)

2646.1 [California]

(c) ~~On a monthly basis, the~~ The tank owner or operator must provide the minimum number of data records to the statistical inventory reconciliation provider as required by that provider. ~~The previous month's~~ Previously submitted data may be included with the current month's data to total the minimum number of records necessary to complete the statistical inventory reconciliation. Data submissions to the statistical inventory reconciliation provider and subsequent receipt of reports from the provider shall be completed ~~monthly within 20~~ at least once every 30 calendar days ~~of the end of the data collection period~~. To give the owner or operator an opportunity to become proficient in the use of statistical inventory reconciliation, the requirements in ~~subsection~~ subdivision (d) below do not apply if any of the first three reports are inconclusive. The owner or operator shall inform the local agency of the results of the first three reports, regardless of the results.

# Monitoring

## Continuous In-Tank Leak Detection

### 280.43 [Federal]

(d) Automatic tank gauging. Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet the following requirements:

- (1) The automatic product level monitor test can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product;
- (2) The automatic tank gauging equipment must meet the inventory control (or another other test of equivalent performance) requirements of § 280.43(a.); and
- (3) The test must be performed with the system operating in one of the following modes:
  - (ii) Continuous in-tank leak detection operating on an uninterrupted basis or operating within a process that allows the system to gather incremental measurements to determine the leak status of the tank at least once every 30 days.

### 2643 [California]

(b) Quantitative release detection ~~method~~ used to monitor underground storage tanks shall be conducted according to one of the methods listed in paragraphs (1) through (5) below. These quantitative monitoring methods shall meet the requirements of section 2643(f) and shall be capable of detecting release rates specified in this section with at least a 95 percent probability of detection and not more than a 5 five percent probability of false alarm.

(5) Continuous in-tank leak detection - Continuous in-tank leak detection shall be conducted at least once every 30 days and shall be capable of detecting an unauthorized release of 0.2 gallons per hour. Continuous in-tank leak detection shall operate on an uninterrupted basis or operating within a process that allows the system to gather incremental measurements to determine the leak status of the tank at least once every 30 days.

# Monitoring Manual Tank Gauging

State v.s. Federal Manual Tank Gauging Measurement Standards						
Nominal Tank Capacity (Gallons)	Minimum Duration of Test (Hours)	Weekly Standard (One Test) (Gallons)	Monthly Standard (Four Test Average) (Gallons)	weekly gal/hr	Monthly gal/hr	
<b>Federal Table</b>						
550 or less	36	10	5	0.277	0.138	
551-1000 (dia 64)	44	9	4	0.204	0.090	
551-1000 (dia 48)	58	12	6	0.206	0.103	
551-1000 (requires periodic tightness testing)	36	13	7	0.361	0.194	
1001-2000 (requires periodic tightness testing)	36	26	13	0.722	0.361	
<b>State Table</b>						
550 or less	36	10	5	0.277	0.138	
551-1000	60	12	<del>6</del> 5	0.200	0.100-0.080	
551-1000 (requires annual tightness testing)	36	13	7	0.361	0.194	
1001-2000 (requires annual tightness testing)	60	26	13	0.433	0.216	

[Federal]

[California]

# Monitoring Groundwater and Vadose Zone

280.45 [Federal]

(a) All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be maintained for 5 years, or for another reasonable period of time determined by the implementing agency, from the date of installation. Not later than October 13, 2018, records of site assessments required under §§ 280.43(e)(6) and (f)(7) must be maintained for as long as the methods are used. Records of site assessments developed after October 13, 2015 must be signed by a professional engineer or professional geologist, or equivalent licensed professional with experience in environmental engineering, hydrogeology, or other relevant technical discipline acceptable to the implementing agency;

2647(h) & 2648(d) [California]

Site assessments conducted after October 13, 2015 must be signed by a professional engineer, professional geologist, or equivalent licensed professional with experience in environmental engineering, hydrogeology, or other relevant technical discipline.

# Monitoring

## Monitoring System Certification

### 280.40 [Federal]

(a) Owners and operators of UST systems must provide a method, or combination of methods, of release detection that:

(3) Beginning on October 13, 2018, is operated and maintained, and electronic and mechanical components are tested for proper operation, in accordance with one of the following: manufacturer's instructions; a code of practice developed by a nationally recognized association or independent testing laboratory; or requirements determined by the implementing agency to be no less protective of human health and the environment than the two options listed above. A test of the proper operation must be performed at least annually and, at a minimum, as applicable to the facility, cover the following components and criteria:

- (i) Automatic tank gauge and other controllers: test alarm; verify system configuration; test battery backup;
- (ii) Probes and sensors: inspect for residual buildup; ensure floats move freely; ensure shaft is not damaged; ensure cables are free of kinks and breaks; test alarm operability and communication with controller;
- (iv) Vacuum pumps and pressure gauges: ensure proper communication with sensors and controller; and

### 280.36(a)(1) [Federal]

(ii) Annually:

- (A) Containment sumps - visually check for damage, leaks to the containment area, or releases to the environment; remove liquid (in contained sumps) or debris; and, for double walled sumps with interstitial monitoring, check for a leak in the interstitial area, and

[Revised "Monitoring System Certification Form" to include the items above.](#)



# Monitoring

## Monitoring System Certification

### Monitoring System Certification Form

D. → Results of Testing/ Servicing

Software Version Installed: \_\_\_\_\_

Complete the following checklist:

<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*α</sup>	Is the audible alarm operational? <sup>α</sup>
<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*α</sup>	Is the visual alarm operational? <sup>α</sup>
<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*α</sup>	Were all sensors visually inspected <u>for kinks and breaks in the cables and for residual buildup to ensure that floats move freely</u> , functionally tested, and confirmed operational? <sup>α</sup>
<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*α</sup>	Were all sensors <u>installed</u> at lowest point of secondary containment and positioned so that other equipment will not interfere with their proper operation? <sup>α</sup>
<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*¶</sup> <input type="checkbox"/> → N/A <sup>α</sup>	If <u>alarms are relayed</u> to a remote monitoring station, is all communications equipment (e.g. modem) operational? <sup>¶</sup>
<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*¶</sup> <input type="checkbox"/> → N/A <sup>α</sup>	For pressurized piping systems, does the turbine automatically shut down if the piping secondary containment monitoring system detects a leak, fails to operate, or is electrically disconnected? If yes, which sensors initiate positive shut-down? (Check all that apply) <input type="checkbox"/> Sump/Trench Sensors; <input type="checkbox"/> Dispenser Containment Sensors. Did you confirm positive <u>shut-down</u> due to leaks <u>and</u> sensor failure/disconnection? <input type="checkbox"/> Yes; <input type="checkbox"/> No. <sup>α</sup>
<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*¶</sup> <input type="checkbox"/> → N/A <sup>α</sup>	For tank systems that utilize the monitoring system as the primary tank overfill warning device (i.e. no mechanical overfill prevention valve is installed), is <u>the overfill</u> warning alarm visible and audible at the tank fill point(s) and operating properly? <u>If so, at what percent of tank capacity does the alarm trigger?</u> _____ % <sup>α</sup>
<input type="checkbox"/> → Yes <sup>*α</sup>	<input type="checkbox"/> → No <sup>¶</sup> <sup>α</sup>	<u>Was any monitoring equipment replaced?</u> If yes, identify specific sensors, probes, or other equipment replaced and list the manufacturer name and model for all replacement parts in Section E, below. <sup>α</sup>
<input type="checkbox"/> → Yes <sup>*α</sup>	<input type="checkbox"/> → No <sup>¶</sup> <sup>α</sup>	Was <u>damage, debris, or liquid</u> found inside any secondary containment systems <u>designed as dry systems</u> ? (Check all that apply) <input type="checkbox"/> Product; <input type="checkbox"/> Water. If yes, describe causes in Section E, below. <sup>α</sup>
<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*α</sup>	Was monitoring system set-up reviewed to ensure proper settings? Attach set-up reports, if applicable <sup>α</sup>
<input checked="" type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*α</sup>	<u>Was the monitoring panel's backup battery visually inspected, functionally tested, and confirmed operational?</u> _____ Voltage <sup>α</sup>
<input type="checkbox"/> → Yes <sup>α</sup>	<input type="checkbox"/> → No <sup>*α</sup>	Is all monitoring equipment operational per manufacturer's specifications? <sup>α</sup>



# Monitoring

## Monitoring System Certification

### Monitoring System Certification Form

#### Testing of Vacuum/Pressure Monitoring (cont.)

**H. → Results of Vacuum/Pressure Monitoring Equipment Testing:**



This section must be completed if vacuum or pressure is used to perform leak detection monitoring.

<input type="checkbox"/>	<u>Component(s) monitored by this sensor:</u> <input type="checkbox"/>	<input type="checkbox"/>
	<u>Sensor functionality test result:</u> ... <input type="checkbox"/> Pass, ... <input type="checkbox"/> Fail	<u>Interstitial communication test results:</u> ... <input type="checkbox"/> Pass, ... <input type="checkbox"/> Fail
<u>How was interstitial communication verified?</u> ... <input type="checkbox"/> Leak introduced at far end of interstitial space, ... <input type="checkbox"/> Gauge, ... <input type="checkbox"/> Visual inspection, ... <input type="checkbox"/> Other (Describe method in Section J below.)		
<u>Vacuum was restored to operating levels in all interstitial spaces:</u> ... <input type="checkbox"/> Yes, ... <input type="checkbox"/> No (If No, describe reason in Section J below.)		

# Topics of Proposed Changes

- ~~Definitions~~
- ~~Exclusions~~
- ~~New Construction~~
- ~~Upgrades~~
- ~~Repair Requirements~~
- ~~Secondary Containment Testing~~
- ~~Spill Containment Testing~~
- ~~Overfill Prevention System Inspection~~
- ~~Compatibility of Underground Storage Tanks~~
- ~~Monitoring~~
- Recordkeeping
- Certifications & Training
- Designated UST Operator

# Recordkeeping

- Compatibility, Maintenance, and Site Assessment
- Permanent Closure

# Recordkeeping

## Compatibility, Maintenance, and Site Assessment

### 280.34 [Federal]

(b) *Recordkeeping*. Owners and operators must maintain the following information:

- (3) Documentation of compatibility for UST systems (§ 280.32(c));
- (5) Documentation of compliance for spill and overflow prevention equipment and containment sumps used for interstitial monitoring of piping (§ 280.35(c));

### 280.45 [Federal]

(a) All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be maintained for 5 years, or for another reasonable period of time determined by the implementing agency, from the date of installation. Not later than October 13, 2018, records of site assessments required under §§ 280.43(e)(6) and (f)(7) must be maintained for as long as the methods are used. Records of site assessments developed after October 13, 2015 must be signed by a professional engineer or professional geologist, or equivalent licensed professional with experience in environmental engineering, hydrogeology, or other relevant technical discipline acceptable to the implementing agency;

# Recordkeeping

## Compatibility, Maintenance, and Site Assessment (cont.)

2712 [California]

(b) Written monitoring and maintenance records shall be maintained on-site or off-site at a readily available location, if approved by the local agency, for a period of at least ~~3 years~~ ~~36 months~~, ~~6 1/2 years~~ 78 months for cathodic protection maintenance records, and ~~5 years~~ 60 months for written performance claims pertaining to release detection systems, and calibration and maintenance records for such systems. On and after October 13, 2018, the record of the site assessment performed for vapor and groundwater monitoring shall be maintained on site or at another approved location for as long as the monitoring methods are used. Records of the system's compatibility with a specific substance shall be maintained on site or at another approved location for as long as the system is used to store the specific substance. Records of repairs, lining, and upgrades shall be maintained on site or at another approved location for the remaining life of the underground storage tank. These records shall be made available, upon request within 36 hours, to the local agency or the State Water Board. Monitoring and maintenance records shall include:

(7) The results of testing; and

(8) Inspection records and reports.

# Recordkeeping Closure Requirements

## 280.74 [Federal]

Owners and operators must maintain records in accordance with § 280.34 that are capable of demonstrating compliance with closure requirements under this subpart. The results of the excavation zone assessment required in § 280.72 must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the UST system out of service;
- (b) By the current owners and operators of the UST system site; or
- (c) By mailing these records to the implementing agency if they cannot be maintained at the closed facility.

## 2672 [California]

(e) The owner or operator of an underground storage tank being closed pursuant to this section shall maintain the analytical results of all soil and groundwater samples for at least 36 months after the underground storage tank system is properly closed.

# Certifications & Training

- Statement of Compliance
- Designated UST Operator Identification
- Facility Employee Training
- Facility Employee Certification
- Facility Employee List

# Certifications & Training

## Owner or Operator Certification

### Statement of Compliance

#### 280.22 [Federal]

(b) Within 30 days of acquisition, any person who assumes ownership of a regulated underground storage tank system, except as described in paragraph (a) of this section, must submit a notice of the ownership change to the implementing agency, using the form in Appendix II of this part or a state form in accordance with paragraph (c) of this section.

#### 2715 [California]

- (a)(1) By January 1, 2005, owners or operators of underground storage tank systems shall submit a signed statement to the local agency indicating that the owner or operator understands and is in compliance with all applicable underground storage tank requirements, and identifying the designated UST operator(s) for each facility owned or operated.
- (2) Within 30 days of installing installation, transfer of ownership, or change in operators of an underground storage tank system, as applicable, the owners or operator shall submit through the California Environmental Reporting System or a local reporting portal all the following:
- (A) A signed “Underground Storage Tank Owner Statement Form,” located in the Appendix, statement to the local agency indicating that the owner or operator understands and is in compliance with all applicable underground storage tank requirements; and



# Certifications & Training

## Owner or Operator Certification

### Designated UST Operator Identification

#### 280.245 [Federal]

Owners and operators of underground storage tank systems must maintain a list of designated Class A, Class B, and Class C operators and maintain records verifying that training and retraining, as applicable, have been completed, in accordance with § 280.34 as follows:

(a) The list must:

(1) Identify all Class A, Class B, and Class C operators currently designated for the facility; and

#### 2715 [California]

(2) Within 30 days of ~~installing~~ installation, transfer of ownership, or change in operators of an underground storage tank system, as applicable, the owners or operator shall submit through the California Environmental Reporting System or a local reporting portal all the following:

(B) A “Designated Underground Storage Tank Operator Identification Form,” located in the Appendix, identifying ~~identify~~ the designated UST operator(s) for the facility, ~~through the California Environmental Reporting System or a local reporting portal.~~

(3) The owner or operator shall submit any change of designated UST operator(s) to the local agency through the California Environmental Reporting System or a local reporting portal no later than 30 days after the change.

# Certifications & Training

## Facility Employee Training

### 280.242 [Federal]

(d) *Training program.* Any training program must meet the minimum requirements of this section and include an evaluation through testing, a practical demonstration, or another approach acceptable to the implementing agency.

### 280.243

(c) Class C operators designated after October 13, 2018 must be trained before assuming duties of a Class C operator.

### 2715 [California]

(fc) ~~By July 1, 2005, and every twelve months thereafter, the~~ The designated UST operator(s) shall train facility employees ~~for which he or she is responsible~~ in the proper operation and maintenance of the underground storage tank system at least once every 12 months. ~~For facility employees hired on or after July 1, 2005, the~~ The initial training shall be conducted within 30 days of the date of hire. For individuals assuming the duties of a facility employee on or after October 13, 2018, the initial training shall be conducted before the individual performs the duties of a facility employee.

(1) ~~The~~ Through a practical demonstration, the training for facility employees must include, but is not limited to:

# Certifications & Training

## Facility Employee Certification

### 280.245 [Federal]

- (b) Records verifying completion of training or retraining must be a paper or electronic record for Class A, Class B, and Class C operators. The records, at a minimum, must identify name of trainee, date trained, operator training class completed, and list the name of the trainer or examiner and the training company name, address, and telephone number. Owners and operators must maintain these records for as long as Class A, Class B, and Class C operators are designated. The following requirements also apply to the following types of training:
- (1) Records from classroom or field training programs (including Class C operator training provided by the Class A or Class B operator) or a comparable examination must, at a minimum, be signed by the trainer or examiner;

### 2715(c) [California]

- (3) ~~A list of facility employees who have been trained by the designated UST operator(s), shall be maintained on-site or off-site at a readily available location, if approved by the local agency. The list shall be provided to the local agency upon request. The list shall include the dates of training for all facility employees, and the hiring dates for all facility employees hired on or after July 1, 2005. Upon completion of the facility employee training, the designated UST operator(s) shall provide a signed "Facility Employee Training Certificate," located in the Appendix, to the underground storage tank owner or operator for each facility employee that has received training. The certificates shall be maintained on-site or off-site at a readily available location, if approved by the local agency, and provided to the local agency upon request.~~

# Certifications & Training

## Facility Employee List

### 280.245 [Federal]

Owners and operators of underground storage tank systems must maintain a list of designated Class A, Class B, and Class C operators and maintain records verifying that training and retraining, as applicable, have been completed, in accordance with § 280.34 as follows:

(a) The list must:

(1) Identify all Class A, Class B, and Class C operators currently designated for the facility;

### 2715(c) [California]

(3) ~~A list of facility employees who have been trained by the designated UST operator(s), shall be maintained on-site or off-site at a readily available location, if approved by the local agency. The list shall be provided to the local agency upon request. The list shall include the dates of training for all facility employees, and the hiring dates for all facility employees hired on or after July 1, 2005. Upon completion of the facility employee training, the designated UST operator(s) shall provide a signed "Facility Employee Training Certificate," located in the Appendix, to the underground storage tank owner or operator for each facility employee that has received training. The certificates shall be maintained on-site or off-site at a readily available location, if approved by the local agency, and provided to the local agency upon request.~~

# Designated UST Operator

- Visual Inspection
- Recording Inspection Results
- Response to Inspection Results
- Retaining Inspection Results

# Designated UST Operator Visual Inspection

## 280.36 [Federal]

(a) To properly operate and maintain UST systems, not later than October 13, 2018, owners and operators must meet one of the following:

(1) Conduct a walkthrough inspection that, at a minimum, checks the following equipment as specified below:

(i) Every 30 days (Exception: spill prevention equipment at UST systems receiving deliveries at intervals greater than every 30 days may be checked prior to each delivery):

## ~~2715~~ 2716 [California]

~~(ca) The~~ All underground storage tank systems shall have a visual inspection performed by a designated UST operator(s) at least once every 30 days. ~~shall perform monthly visual inspections of all underground storage tank systems for which they are designated. The results of each inspection shall be recorded in a monthly inspection report. The monthly visual inspection shall include, but is not limited to, the following:~~

# Designated UST Operator Visual Inspection (cont.)

280.36(a)(1)(i) [Federal]

(A) Spill prevention equipment - visually check for damage; remove liquid or debris; check for and remove obstructions in the fill pipe; check the fill cap to make sure it is securely on the fill pipe; and, for double walled spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area, and

~~2715-2716~~ [California]

~~(c)~~ ~~The designated UST operator(s) shall perform monthly visual inspections of all underground storage tank systems for which they are designated. shall perform monthly visual inspections of all underground storage tank systems for which they are designated. The results of each inspection shall be recorded in a monthly inspection report. The monthly visual inspection~~ The designated UST operator's visual inspection shall include, but is not limited to, all of the following:

~~(24)~~ Inspecting for ~~the presence of damage or any~~ hazardous substance, water, or debris present in spill containment;

~~(5)~~ Inspecting for obstructions in the fill pipe;

~~(6)~~ Inspecting the fill cap to make sure it is securely on the fill pipe;

# Designated UST Operator Visual Inspection (cont.)

280.36(a)(1) [Federal]

(ii) Annually:

- (A) Containment sumps - visually check for damage, leaks to the containment area, or releases to the environment; remove liquid (in contained sumps) or debris; and, for double walled sumps with interstitial monitoring, check for a leak in the interstitial area, and

~~2715~~ 2716 [California]

(eb) The designated UST operator's visual inspection shall include, but is not limited to, all of the following:

- (~~37~~) Inspecting for ~~the presence of~~ damage or any hazardous substance, water, or debris present in under-dispenser containment areas and checking that the monitoring equipment in these areas is located in the proper position to detect a leak at the earliest possible opportunity;
- (~~48~~) Inspecting for ~~the presence of~~ damage or any hazardous substance, water, or debris present in containment sumps that, ~~in the past month,~~ have had an alarm since the last visual inspection for which there is no record of a service visit, and checking that the monitoring equipment in these containment sumps is located in the proper position to detect a leak at the earliest possible opportunity.



# Designated UST Operator Recording Visual Inspection Results

## 280.36 [Federal]

(b) Owners and operators must maintain records (in accordance with § 280.34) of operation and maintenance walkthrough inspections for one year. Records must include a list of each area checked, whether each area checked was acceptable or needed action taken, a description of actions taken to correct an issue, and delivery records if spill prevention equipment is checked less frequently than every 30 days due to infrequent deliveries.

## 2716 [California]

(c) On and after the effective date of this subdivision, the results of the designated UST operator(s) visual inspection shall be recorded on the “Designated Underground Storage Tank Operator Visual Inspection Report” located in the Appendix. The results shall include all of the following:

- (1) A list of each area checked and whether each area checked is acceptable or needs action taken;
- (2) A copy of the alarm history since the previous visual inspection;
- (3) Documentation demonstrating action taken in response to any alarm(s) since the previous visual inspection;
- (4) A list of issues in response to any alarm(s) since the previous visual inspection for which there is no record that action has been taken to correct the issue;
- (5) Documentation demonstrating action taken in response to issues identified by the designated UST operator on the previous “Designated Underground Storage Tank Operator Visual Inspection Report;” and
- (6) A list of issues identified by the designated UST operator on the previous “Designated Underground Storage Tank Operator Visual Inspection Report;” during the previous visual inspection for which there is no record that action has been taken to correct.

# Designated UST Operator Response to Visual Inspection Results

## 280.36 [Federal]

(b) Owners and operators must maintain records (in accordance with § 280.34) of operation and maintenance walkthrough inspections for one year. Records must include a list of each area checked, whether each area checked was acceptable or needed action taken, a description of actions taken to correct an issue, and delivery records if spill prevention equipment is checked less frequently than every 30 days due to infrequent deliveries.

## 2716 [California]

(e) Within 48 hours of being provided a signed copy of the “Designated Underground Storage Tank Operator Visual Inspection Report” the owner or operator shall provide a description of the actions taken to correct all issues identified by the designated UST operator accompanied by a date and signature on the signed copy of the “Designated Underground Storage Tank Operator Visual Inspection Report.”

# Designated UST Operator Response to Visual Inspection Results (cont.)

## 280.36(a)(1) [Federal]

- (i) Every 30 days (Exception: spill prevention equipment at UST systems receiving deliveries at intervals greater than every 30 days may be checked prior to each delivery):
  - (A) Spill prevention equipment - visually check for damage; remove liquid or debris; check for and remove obstructions in the fill pipe; check the fill cap to make sure it is securely on the fill pipe; and, for double walled spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area, and
- (ii) Annually:
  - (A) Containment sumps - visually check for damage, leaks to the containment area, or releases to the environment; remove liquid (in contained sumps) or debris; and, for double walled sumps with interstitial monitoring, check for a leak in the interstitial area, and

## 2716 [California]

- (f) Within 30 days of receiving a signed copy of the “Designated Underground Storage Tank Operator Visual Inspection Report” from the designated UST operator, the owner or operator shall implement corrections to address all issues specified in the visual inspection report. The local agency may waive the requirement to implement corrections for any of the issues identified by the designated UST operator based on a demonstration by the owner or operator to the local agency that the system is in compliance with these regulations.

# Designated UST Operator Retaining Visual Inspection Results

2716 [California]

(g) Owners or operators shall maintain a copy of the “Designated Underground Storage Tank Operator Visual Inspection Report” and all attachments for 12 months. Beginning on the effective date of this subdivision, copies of the “Designated Underground Storage Tank Operator Visual Inspection Report” and all attachments shall be maintained for 36 months. The records shall be maintained on-site or, if approved by the local agency, off-site at a readily available location.

**Retaining a copy for 36 months is needed in order to keep local agencies updated on the status of the site, and are consistent with the current regulations on maintaining written monitoring and maintenance records.**

2712 [California]

(b) Written monitoring and maintenance records shall be maintained on-site or off-site at a readily available location, if approved by the local agency, for a period of at least 36 months...

# Contact Information

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Presentation available after March 28, 2017 at:

- <http://www.swrcb.ca.gov/ust/>
  - Hot Topics
- [http://www.swrcb.ca.gov/ust/tech\\_notices.shtml](http://www.swrcb.ca.gov/ust/tech_notices.shtml)