

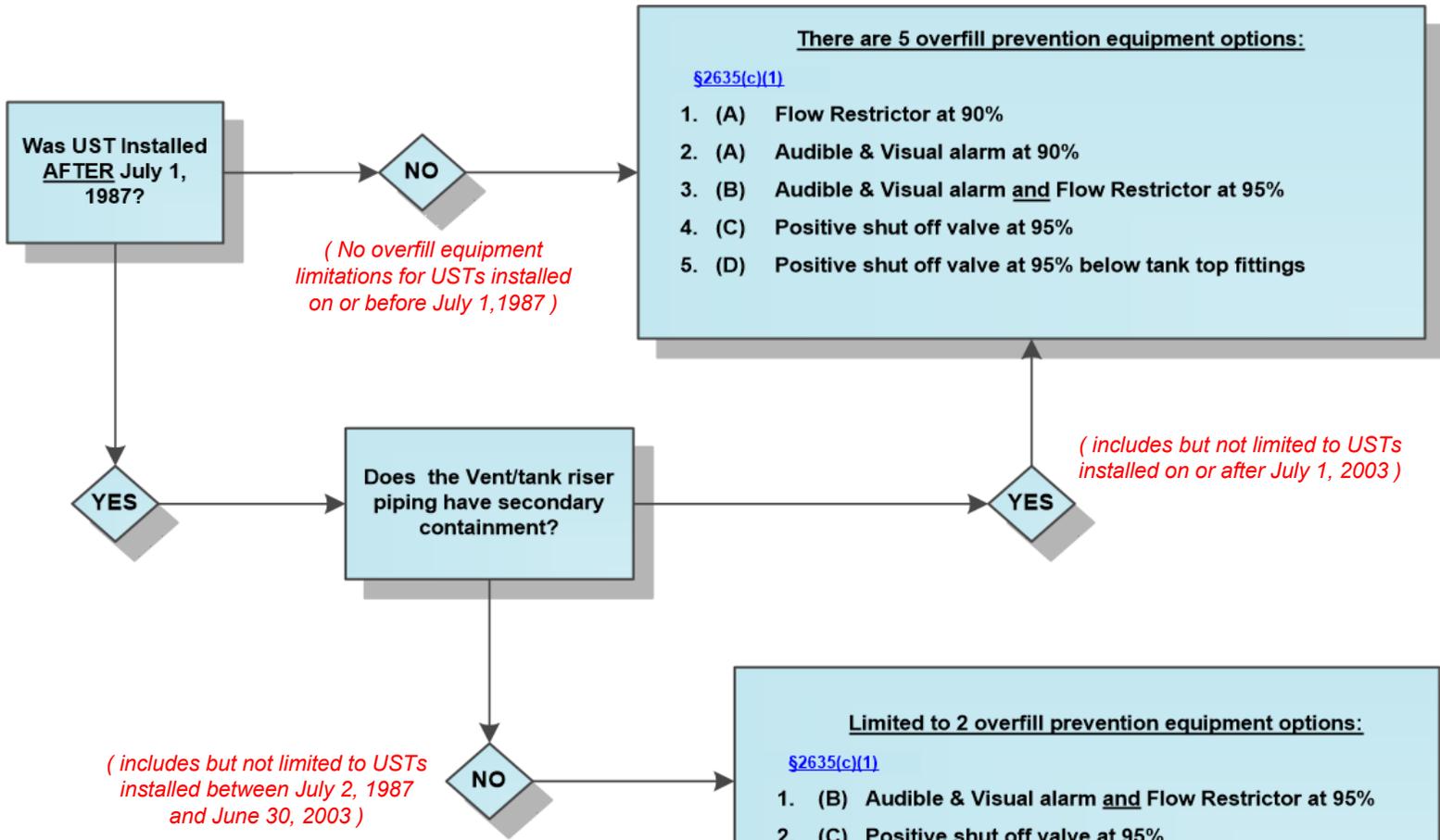


COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION



OVERFILL PREVENTION EQUIPMENT REQUIREMENTS GUIDE

This flowchart is designed to assist UST owners and operators in identifying the correct type of overfill prevention equipment for their system based on when the UST was installed, and whether the vent lines or tank riser piping have secondary containment. Refer to Appendix 1-Summary of Underground Storage Tank Overfill Prevention Options from State Water Resources Control Board (SWRCB).



CCR §2635(c)(1)

- (A)**- Alert the transfer operator when the tank is 90 percent full by restricting the flow into the tank or triggering an audible and visual alarm
- (B)**- Restrict delivery of flow to the tank at least 30 minutes before the tank overfills, provided the restriction occurs when the tank is filled to no more than 95 percent of capacity; and activate an audible alarm at least five minutes before the tank overfills;
- (C)**- Provide positive shut-off of flow to the tank when the tank is filled to no more than 95 percent of capacity
- (D)**- Provide positive shut-off of flow to the tank so that none of the fittings located on the top of the tank are exposed to product due to overfilling.

Limited to 2 overfill prevention equipment options:
 §2635(c)(1)

1. (B) Audible & Visual alarm and Flow Restrictor at 95%
2. (C) Positive shut off valve at 95%

OVERFILL PREVENTION EQUIPMENT		
RESTRICT*	ALARM	SHUT OFF
		
<p><i>*Ball floats are no longer an option when overfill prevention equipment is newly installed, repaired, or replaced on and after 10/1/2018.</i></p>		

**Overfill Prevention Equipment Inspection Requirements
California Code of Regulations, Title 23, Division 3, Chapter 16, Section 2637.2**

Is overfill prevention equipment required to be inspected?

Yes, on and after October 1, 2018, all overfill prevention equipment used to comply with California Code of Regulations, title 23, division 3, chapter 16,¹ section 2635(c)(1) must be inspected periodically and after repairs.

[References cited: §§ 2637.2(a) & 2665(b).]

When is overfill prevention equipment required to be inspected?

Inspections must occur at least once every 36 calendar months, after the first inspection is completed. For underground storage tanks (USTs) installed on and after October 1, 2018, the first inspection must be completed at the time of installation. For USTs installed before October 1, 2018, the first inspection must be completed by October 13, 2018. In addition to the periodic inspections, an inspection is required within 30 days of the date of the completion of a repair to the overfill prevention equipment to ensure that it is in proper functioning order. Repairs are required any time the overfill prevention equipment ceases to operate properly and causes the UST to be out of compliance with UST requirements.

[References cited: §§ 2611, def. "Repair" & 2637.2(a).]

How can the inspection due date be changed?

A UST owner or operator may change the due date of the inspection by performing the inspection early, but an inspection conducted late will not change the due date. The compliance period begins the calendar month after the inspection due date and not the calendar month after a late inspection is performed. A UST owner or operator that performs an inspection early may not return to the original due date and must perform the next inspection before the end of the new 36 calendar month compliance period.

[Reference cited: § 2620(e).]

What equipment is required to be inspected?

All equipment used to satisfy the overfill prevention requirement of section 2635(c)(1) and listed in the Tank Construction section on the Tank Information page of the California Environmental Reporting System (CERS) must be inspected. UST owners and operators are required to list in CERS only the equipment used to satisfy the overfill prevention requirement of section 2635(c)(1). To determine what equipment is used to satisfy the overfill prevention requirement of section 2635(c)(1) the UST owner or operator must first identify which method of overfill prevention is being used. Local Guidance (LG) on the methods of overfill prevention is provided by LG 150-2,² however,

¹ All citations are from California Code of Regulations, title 23, division 3, chapter 16 unless specified otherwise.

² LG 150-2 is located at: https://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/lgs/docs/150_2.pdf.

Overfill Prevention Equipment Inspection Requirements California Code of Regulations, Title 23, Division 3, Chapter 16, Section 2637.2

the summary table (Appendix 1) enclosed in this document supersedes the summary table enclosed with LG 150-2.

[Reference cited: § 2711(a)(6).]

How is the inspection performed?

Manufacturer guidelines must be used if the guidelines meet the inspection criteria as defined below. If manufacturer guidelines do not exist or the manufacturer guidelines do not meet the inspection criteria, you must use an industry code or engineering standard, such as *Petroleum Equipment Institute's Recommended Practices 1200*. In the event that there are no manufacturer guidelines, industry codes, or engineering standards, or they do not meet the inspection criteria, then you must use a method developed by a California registered professional engineer.

The inspection procedure used will determine inspection activities such as removing the drop tube from the tank or flow restrictors from the vent piping. At a minimum, the inspection criteria for overfill prevention equipment must determine: 1) if the equipment is set at the correct level in the tank; and 2) if the equipment will activate when the substance stored reaches that level. The section titled *Overfill Prevention Recommendations* in LG 150-2 provides information on conditions that could prevent overfill prevention equipment from activating and must be considered when determining if the inspection procedure meets the inspection criteria.

[Reference cited: § 2637.2(b).]

What determines a passing or failing result?

A passing result is when the overfill prevention equipment inspected is set at the correct level and the equipment is in a condition that it will activate when the stored substance reaches that level. If the overfill prevention equipment fails the inspection, the UST service technician must provide an explanation for why the equipment failed.

[Reference cited: § 2637.2(b).]

Who must perform the inspection?

The inspection must be performed by a qualified UST service technician possessing training or certification provided by: 1) the manufacturer of the overfill prevention equipment being inspected; 2) the developer of the industry code or engineered standard used to inspect the equipment; or 3) the engineer that developed the inspection method used to inspect the equipment. If training or certification from the manufacturer of the overfill prevention equipment or the developer of the inspection

Please note that the following citations in LG 150-2 will move effective October 1, 2018. Section 2635(b) will move to section 2635(c)(1) and section 2635(b)(2)(A) through (D) will move to 2635(c)(1)(A) through (D).

Overfill Prevention Equipment Inspection Requirements California Code of Regulations, Title 23, Division 3, Chapter 16, Section 2637.2

procedure used does not exist, then the UST service technician must have comparable training and certification. Comparable training or certification is training or certification in an inspection procedure applicable to the device or system. For example, if a UST service technician will be inspecting a drop tube shut-off valve using manufacturer guidelines but the manufacturer is no longer in business, then the UST service technician may receive training and certification from a manufacturer with comparable inspection procedures to satisfy the training or certification requirement.

[References cited: §§ 2637.2(c), 2715(f)(2)(D) & (E).]

How is the inspection documented?

The results of the inspection must be recorded on the *Overfill Prevention Equipment Inspection Report Form*. A copy of the procedure used to inspect the equipment must be attached to the form, along with any data collected to determine if the overfill prevention equipment “passed” or “failed” the inspection. The completed *Overfill Prevention Equipment Inspection Report Form*, the attached procedure, and data collected must be submitted to the Unified Program Agency (UPA) within 30 days from the date of the inspection by hand-delivery, mail, facsimile, or other electronic methods. The UST owner or operator must retain a copy of the inspection report on-site, or off-site at a readily available accessible location, if approved by the local agency.

[References cited: §§ 2637.2(d), (e), & 2712(b)(1)(G).]

Is notification required prior to performing the inspection?

Yes, UST owners or operators must notify their UPA at least 48 hours prior to conducting the inspection. The notification provides an opportunity to the UPA to incorporate the inspection into their schedule so that they can witness the inspection, however, the UPA is not required to be present for the inspection to occur.

[Reference cited: §§ 2637.2(f).]

Overfill Prevention Equipment Inspection Requirements
California Code of Regulations, Title 23, Division 3, Chapter 16, Section 2637.2

Does performing the overfill prevention inspection have any impact on vapor recovery equipment?

Refer to the section titled *California Air Resources Board and Local Districts* in LG 150-2.

If there are further questions regarding the overfill prevention inspection please contact UST Leak Prevention Unit staff at:

https://www.waterboards.ca.gov/water_issues/programs/ust/contacts/ust_staff.shtml.

Enclosure (1)

1. Appendix 1: Summary of Underground Storage Tank Overfill Prevention Options

Documents with Superseded Content	
<i>LG 150-2 and Enclosure: Underground Storage Tank Overfill Prevention Systems</i>	July 2007
<i>LG-159: Annual Underground Storage Tank Compliance Inspection Handbook</i>	May 2011
<i>Overview of UST Containment and Monitoring Requirements</i>	June 2008
<i>LG-167: Qualifications & Scope of Work for UST Installers and Service Technicians</i>	March 2006

Appendix 1

Summary of Underground Storage Tank Overfill Prevention Options (Supersedes the summary table enclosed with LG 150-2)

Health and Safety Code (H&SC), sections 25281.5, 25290.1, 25290.2, 25291, and 25292
California Code of Regulations, title 23, division 3, chapter 16, sections 2635, 2636, and 2665

Overfill Prevention Methods	Product Level	Overfill Prevention Equipment	Citation	Vent/Tank Riser Piping Subject to Secondary Containment and Corrosion Protection?		
				H&SC, § 25292	H&SC, § 25291	H&SC, §§ 25290.1 & 22590.2
Restrict the Flow into the Tank	90 percent	Flow Restrictor ¹	§2635(c)(1)(A)	NO ^{2,4}	YES ³	YES
Audible & Visual Alarm	90 percent	Liquid Level Device	§2635(c)(1)(A)	NO ^{2,4}	YES ³	YES
Restrict the Flow into the Tank & Audible and Visual Alarm	At least 30 minutes before tank overfills & filled to no more than 95 percent of tank capacity	Flow Restrictor ¹	§2635(c)(1)(B)	NO ^{2,4}	NO ⁴	YES
	At least five minutes before the tank overfills	Liquid Level Device				
Shut-off the Flow into the Tank	95 percent	Shut-off Valve ⁵	§2635(c)(1)(C)	NO ^{2,4}	NO ⁴	YES
Shut-off the Flow into the Tank	Below tank top fittings	Shut-off Valve ⁵	§2635(c)(1)(D)	NO ^{2,4}	YES ³	YES

¹ In order to provide proper flow restriction, ball floats are required under all open risers except the fill riser and automatic tank gauging port.

² Secondary containment and corrosion protection on vent and tank riser piping is not required for UST installed before July 1, 1987.

³ Secondary containment and corrosion protection is required on vent and tank riser piping for USTs installed after July 1, 1987 with this type of overfill prevention, because this type of overfill prevention does not meet the exemption criteria of section 2636 (a)(1) of the California Code of Regulations.

⁴ Single-walled components of UST systems may be a source of product or vapor releases to the subsurface environment, even if they do not routinely contain product. Therefore, we recommend installation of secondary containment on all UST components, including those currently exempt from this requirement.

⁵ If both a flow restrictor and a shut-off valve are installed, the flow restrictor may interfere with the operation of the shut-off valve if the flow restrictor is installed lower than the shut-off valve. Therefore, the flow restrictor must be installed at a higher level than the shut-off valve so that the shut-off valve is activated prior to any flow restriction.