



State of Oregon
Department of
Environmental
Quality

Underground Storage Tank (UST) Program

Guidance Pertaining To:

Overfill Protection – Loose Fill Metered Deliveries into USTs

Who is Affected?	UST Permittees, Tank Owners and Regulated Substance Distributors
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Description of Issue	<p>There are a small number of underground storage tanks (USTs) in Oregon where gravity drop deliveries of regulated substances is not possible. Most commonly these are small emergency generator, automatic transmission fluid or new motor oil tanks. These tanks get filled by loose fill metered drops from account trucks, rather than from the typical motor fuel cargo tanker trucks. Even though the tank may be fitted with a drop tube shutoff valve for overfill protection, DEQ has learned that these devices don't work as designed and are not manufacturer certified for loose fill metered drops. Consequently these tanks are not in compliance with the overfill protection requirements in OAR 340-150-0130 (2 and 4).</p>
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What are the overfill protection requirements?	<ol style="list-style-type: none">1. An owner and permittee must install, operate and maintain overfill prevention equipment and follow fill procedures that prevent any of the fittings located on the top of the tank from being exposed to a regulated substance due to overfilling; and<ol style="list-style-type: none">a. Automatically shuts off flow into the UST when the UST is no more than 95% full; orb. Alerts the person depositing a regulated substance when the UST is no more than 90% full by restricting the flow or by triggering an alarm.2. Measure the volume of regulated substance in the UST to confirm that the volume available in the UST is greater than the volume of regulated substance to be deposited.3. Develop and implement procedures to ensure that each deposit of a regulated substance into the UST is monitored constantly to prevent overfilling and spilling.
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What are acceptable solutions to permit use of loose fill metered pressure drops?	<ol style="list-style-type: none">1. Install a high level alarm system (preferred solution).2. Develop and apply site specific written procedures that must be followed by permittee and distributor during every regulated substance delivery into USTs (acceptable solution in a few select cases).
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What are the minimum conditions for when written procedures only will meet the overfill requirement?

1. UST must be 2000 gallons or less in capacity.
 2. Exception is limited to emergency generator USTs and USTs holding regulated substances such as automatic transmission fluid and new oil. Having site specific written procedures only **is not** an acceptable solution for any size of motor fuel tank.
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What are the minimum specifications for written procedures to operate in lieu of mechanical or audible overfill protection equipment?

1. It is recommended that the permittee be on site during every delivery using the loose fill metered drop delivery method.
 2. Distributor must verify that facility has current UST operating certificate issued by DEQ for all tanks accepting delivery.
 3. Permittee and distributor must follow all safety procedures in place for product transfer and the facility in general.
 4. Permittee and distributor must know if the UST drop tube has an existing overflow shutoff device installed which may create a safety and potential overfill hazard by accidentally triggering during a loose fill metered drop.
 5. Permittee and distributor must stick the tank and record the reading before starting product delivery. These records must be available for DEQ inspection, upon request.
 6. Using an appropriate tank chart, permittee and distributor must determine the volume needed to reach 90% of tank capacity.
 7. Permittee and distributor must monitor the meter and the tank fill opening during active pumping of regulated substance. The delivery driver must be at the point of fill during product transfer and not latch the nozzle and walk away from the fill tube opening.
 8. Using the loose fill metered drop method, fill the tank until the calculated volume of product has been delivered. The total product in the tank must not exceed 90 percent of the tank capacity.
 9. Following delivery, stick the tank to determine if the 90% threshold has been reached or if additional regulated substance can be placed in the UST.
 10. Repeat steps 4 through 7 if additional regulated substance can be dropped into the tank.
 11. When delivery is complete, record the final readings for delivery amount and total product volume in the UST on the delivery ticket or other record made available to the permittee. All records of the delivery must be available for DEQ inspection, upon request.
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Who can I talk to
about these overflow
protection
requirements?

Tank Staff are available at the following offices:

In Northwest Oregon (Clatsop, Clackamas, Columbia, Multnomah, Tillamook and Washington counties):

- Portland, 2020 SW Fourth Ave., Suite 400, 503-229-5263

In Western Oregon (Benton, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Polk and Yamhill counties):

- Salem office: 750 Front St. NE, Suite 120, 503-378-8240
- Eugene office: 165 East 7th Avenue, Suite 100, 541-686-7838
- Coos Bay office: 381 N. Second Street., 541-269-2721 ext 31

In Eastern Oregon (Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco and Wheeler counties):

- The Dalles office: Columbia Gorge Community College, 400 E. Scenic Drive, Building 2, 541-298-7255
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Andree Pollock

Approved By: _____
Andree Pollock, Manager, UST Program

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