

Proper Care and Maintenance for Unregulated Tank Systems

This fact sheet provides guidance on how to maintain an existing, active home heating oil tank or other unregulated tank system. Tanks that are not regulated by Department of Environmental Quality DEQ include:

- farm and residential tanks holding 1,100 gallons or less of motor fuel used for noncommercial purposes;
- residential and commercial heating oil tanks; and
- tanks holding less than 110 gallons.

In addition, septic tanks are not regulated by DEQ's Tanks program but they are regulated by various on-site regulations. See <http://www.deq.state.or.us/wq/onsite/onsite.htm> for more information on septic tanks.

Contact DEQ's Tanks Program for assistance (see page 2) if your tank does not meet these criteria or you need information on properly closing a tank when it is no longer used. In addition, you should check with other state and local agencies that may have laws and rules (e.g. State Fire Marshal for fire safety or local ordinances for tank inspection/maintenance) that apply to the operation of your tank or system.

In this fact sheet **UST** refers to an **underground storage tank** which holds motor fuel, heating oil that fuels a boiler or furnace, or other chemicals. **ASTs** are **aboveground storage tanks**. A tank that is located in the basement is categorized as an AST. The only ASTs covered by DEQ rules are those receiving petroleum from pipelines, ships or barges.

Why maintain tanks?

Proper care and maintenance of your fuel oil or other unregulated tank, distribution lines, and furnace can reduce your chance of spilling oil or other contaminants and being faced with costly environmental problems. Leaks or spills can:

- contaminate drinking water wells, groundwater, and soil;
- cause odor and health problems in the home; or
- contaminate stormwater drains, sewers, drainage ditches and surface water.

Each of these problems can cost thousands of dollars to correct. Owners of a tank or tank system that has not been properly maintained, will likely be considered liable for a release should the tank or tank system leak. The following tips can help you avoid costly repairs and problems associated with leaks and spills.

Steps for Tank Maintenance and Leak Prevention:

- Quarterly inspect and maintain both AST and UST tank systems: Check the tank for signs of corrosion. Buried tanks can corrode and leak without obvious signs on the surface. Be alert for unexplained fuel losses that might point to leakage. Scrutinize the fill lines, pipes, valves, gauges, and AST tank supports for any visible signs of rust and decay, or dark staining under the AST.
- Maintain the pad or drip pan upon which the AST is placed. If the AST was not installed on a pad or in a drip pan, it is a good investment to update the AST with a pad or drip pan.
- Make sure the fill cap and the vent cap are in place and tightly secured.
- Keep the fill pipe accessible and visible to the delivery company.
- Look for signs of spillage near the fill and vent pipes. Stained soil and rock or distressed vegetation could indicate a fuel spill has occurred.
- Place oil lines between tank and furnace either under concrete or in protective tubing. Check fuel lines for crimps and replace any damaged fuel lines. Use flexible tubing if frost heaving is a problem.
- Keep all pipe connections clean and tight. Check for drips from the fittings and the filter.
- Clear snow, ice, insect nests or other debris from the tank vent to allow the tank to properly breathe.
- Is there a danger of ice or snow sliding off a roof and damaging the tank, tank stand, or exposed fuel lines?
- Water can collect inside a tank from condensation and cause internal corrosion. Trapped water can be controlled by removing the water from a drain plug, using water absorbent socks, or periodically using additives.
- For indoor tanks, be alert for signs of oil in the sump pump pit and floor drains, and for any oil smell in the basement or crawl space.
- All indoor tanks should have a vent alarm that alerts the fuel deliverer before the tank is full. When you receive oil, you can ask the deliverer to verify that the whistle is operating.



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Alternative formats
Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.

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Things to consider:

- Know how to properly measure your tank and calculate the volume in the tank. Determine your tank size and know when and how much to order from your delivery company.
- Don't leave your tank unattended during fuel transfers. Avoid overfills!
- Measure and monitor fuel usage and compare it to past seasons. A leaking underground fuel tank or line may cause unexplained increases in fuel consumption.
- Avoid using the area around or under the tank as a storage area. Heavy items can damage the fill or supply pipes.
- Protect fuel lines from damage by vehicles. Snowmobiles, heavy equipment, or heavy vehicle loads can damage underground lines if they are not adequately buried or protected. Aboveground fuel lines should be encased in protective tubing.
- Consider using a locking cap on the fill pipe to help prevent vandalism.
- Install a shutoff valve at the tank outlet to isolate the fuel line in case it starts to leak. If you see leak in the line, close the valve to avoid spilling the entire tank volume.
- Do children play around the tank? Protect fuel lines so they cannot be used as handholds for children climbing on a tank.
- Consider a secondary containment area under an aboveground tank. A soil, sandbag, or timber berm with a fuel resistant liner will catch spills before they can contaminate surrounding areas.
- If the tank is no longer used, empty the tank and fuel lines completely and properly close the tank (see <http://www.deq.state.or.us/lq/pubs/factsheets/tanks/hot/FAQAboutHOT.pdf>). The fill pipe should be removed or locked closed with a bolt to prevent a mistaken delivery.

Signs of a Leaking Tank:

A leaking tank can cause indoor air pollution and can potentially contaminate soil; surface, ground and drinking water. Often, a UST release will not be detected unless the tank is removed from the ground. At the tank removal, the owner should carefully observe the removal for signs that the tank leaked. The following scenarios may indicate a leaking tank:

- Fuel consumption greatly increases, even though the weather is not unusually cold.
- Dead or dying vegetation in the area of the tank.
- Heating oil odors in the house or emanating from the ground.
- Dark stained soils compared to the surrounding native soils.

- Oily rainbow sheen on water beneath the tank, in basement sump or footing drain discharge.
- Staining around the fill pipe.

Steps To Take Upon Discovering A Leak:

Accidents can happen, despite your best efforts to prevent them. In the event of a spill, the main priorities should be stopping the flow of oil at its source and containing the oil that has spilled. This will help minimize the impact to the environment and to your property and that of your neighbors. In most cases, cleanup consists of the removal and disposal of any contaminated soils or other media and repair or replacement of leaking tanks and/or fuel lines. Actions to take include:

- Try to identify the source of the release.
- Take immediate steps to stop the leak and contain the escaped heating oil with absorbent material such as kitty litter or sawdust. You can also place a drip pan under a leak from an aboveground tank.
- Turn off all the oil furnace shut off switches and close the oil line valve.
- Verify that the furnace blower is turned off to prevent spreading the odors throughout the house. For indoor spills, open windows to ventilate the odors.
- Minimize skin contact with the spilled oil. You should wear rubber gloves, if you are cleaning up the spill, to prevent the oil from getting on your hands.
- Contact your heating oil supplier for assistance and to drain the heating oil from the tank, if necessary.

Information on decommissioning, cleanup costs and service providers is available from <http://www.deq.state.or.us/lq/tanks/hot/index.htm> or contact DEQ's Underground Storage Tanks Helpline, (800) 742-7878, DEQ's Heating Oil Tank Program (503) 667-8414, ext. 55026 or hotinfo@deq.state.or.us. With releases from ASTs or HOTs, the actual quantity of heating oil released is frequently hard to determine. In order to assure compliance with all applicable regulations, it is highly recommended that any release be reported to one of the phone numbers listed above or Contact Oregon Emergency Response System (OERS) at (800) 452-0311.

Additional Information:

Additional information on heating oil tanks, is available on DEQ's Web site at: <http://www.deq.state.or.us/lq/tanks/hot/index.htm>. You can also contact DEQ's Helpline toll-free at 1-800-742-7878 or e-mail your request to hotinfo@deq.state.or.us.

