

# Connecticut Department of Energy & Environmental Protection

## Guidance for Residential Home Heating Oil Tank Leaks

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### **Reporting**

Report any leak from a tank and/or piping to the DEEP Emergency Response and Spill Prevention Division at 866-337-7745. If heating oil is in surface water or a drinking water well, also report it to the Remediation Division at DEEP at 860-424-3705.

### **Underground or Outside Aboveground Storage Tanks Leaks**

Your heating oil supplier may be able to help you find a registered contractor to remove leaking underground tanks and/or piping. Remove any petroleum-stained soil to the extent possible. Remove any heating oil that is floating on the water table. Remove any heating oil that collects in drains around the house or flows into streams, drainage ditches, ponds, etc. Prevent contamination from going off-site. You are responsible for restoring neighboring properties to pre-leak conditions.

After excavating the stained soil, the tank removal contractor should collect soil samples to make sure they removed all of the pollution. Collect soil samples from the bottom and each side of the excavation. Collect samples from discrete locations nearest where stained soil had been. Do not mix soil samples from different locations (composite sampling), as that will skew the data. Send soil samples to a Connecticut certified lab for analysis for Extractable Total Petroleum Hydrocarbons (ETPH). Tank removal contractors usually have certified labs with whom they work.

Remove additional soil if the ETPH concentrations exceed 500 ppm (parts per million or mg/kg). Collect and analyze another soil sample to show the cleanup is complete. Soil venting can be used to clean up areas with residual staining that cannot be excavated, such as beneath a foundation.

### **Aboveground Storage Tank Leaks Inside a Building**

Keep oil from reaching sumps or floor drains. If oil gets into sumps or floor drains, it will spread farther and will be harder to clean up.

Close the door(s) between the tank and the rest of the house. Open windows and doors to the outside to allow vapors to escape. Use window fans facing out to exchange the air and reduce heating oil odors. Turn off forced air heaters or air conditioning to keep odors out of the rest of the house. Removing and properly disposing of any oil stained items (cardboard, wood, drywall, etc.) will also improve indoor air quality. Use deodorizing cleansers to clean oil-stained concrete.

Pollution located under a garage or basement floor presents a difficult situation. With your contractor, try to determine how much oil escaped by checking oil delivery records and/or sampling soil from beneath the floor. If the contamination is severe or if drinking water wells are within 500 feet, excavation may be necessary. The DEEP Site Assessment and Support Unit can help determine the best course of action in such circumstances (860-424-3376).

### **Drinking Water Wells/Groundwater Sampling**

In areas without drinking water wells, if you removed all floating oil, you do not need to sample groundwater.

If a drinking water well(s) is within 500 feet of the leak, call the Remediation Division District Supervisor for advice on appropriate well water sampling and cleanup. Your local health district may also be able to offer assistance.

A Significant Environmental Hazard report is required by law if:

- a drinking water well is within 500 feet of the leak and groundwater contains any petroleum component over the Groundwater Protection Criteria (for ETPH 250 parts per billion [ppb or  $\mu\text{g/l}$ ]), or
- there is any petroleum component detected in a drinking water well at any level.

### **Heating Oil Odors/Soil Venting**

If heating oil odors remain in the house after soil removal, a passive soil venting system could help. A passive soil venting system is made of perforated plastic piping in a buried stone-lined trench near the pollution. This provides airflow near the pollution, allowing the remaining oil to evaporate into the air and exit through the pipe, instead of into the house.

If heating oil pollution near or under the house is more severe or the pollution is near drinking water wells, you may need an active soil venting system. Active soil venting uses an electric blower to pull air through the system faster, removing pollution more quickly.

If there is no petroleum odor in a building, soil venting may not be necessary.

### **Documentation**

Contractors should produce a letter report detailing the tank removal and the excavation of contaminated soil. The report should include photos, a sketch of the excavation area showing all sample locations, and all laboratory analytical results. Send copies of that report to DEEP Emergency Response and Spill Prevention and the local Fire Marshal.

Homeowners should keep that report with their other important property related documents, as questions regarding contamination from heating oil tanks can arise during home sales. Potential homebuyers and lenders are typically interested in tank leaks, but are reassured if homeowners can document that cleanup is complete.

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