

Homeowner's Guide: Home Heating Oil Tanks



Environmental Protection



What you need to know: Maintenance, Spill Response & More

A growing concern...

Home heating oil tanks can fail, leading to oil spills into creeks, harbours, shorelines and natural drinking water sources, causing potential health risks or environmental damage that is costly to residents. Spills happen for three main reasons:

1. Failure of abandoned or decommissioned underground tanks;
2. Failure of in-use tanks due to internal and external rust or corrosion; and
3. Accidental damage to tanks or fuel lines.

Once spilled, rain and irrigation water carries oil through the soil into residential perimeter drains and the surrounding environment. Perimeter drains can quickly carry oil into the storm drain systems, which empty directly into creeks, harbours or shorelines.

For more information: www.crd.bc.ca/report-spill.

How can I help?

Ensure that home heating oil tanks don't leak and contaminate the environment by following these steps:

- Routinely inspect and maintain your heating oil system;
- Remove any underground oil tanks that are aging, abandoned or decommissioned;
- Understand the liability risks of a leak or spill originating from oil tanks on your property. Even tanks that are unknown or have been decommissioned or rendered inert may potentially contaminate the soil, creeks, harbours and shorelines;
- Install new tanks as required by your local Fire Department; and
- Consider replacing your oil tank with greener heating choices. The CleanBC Better Homes program offers up to \$5350 per home to help BC residents upgrade from fossil fuel heating to efficient heat pumps. To learn more, visit www.crd.bc.ca/heatpump.

Top of page: Containing & cleaning up a spill entering the Gorge Waterway from a leaking home heating oil tank. Photo courtesy of the Times Colonist.

Locating Underground Tanks

Abandoned or decommissioned

Sixty years ago, across the Capital Region, it was common to have home heating oil tanks buried underground on residential properties. As properties change hands, some underground tanks remained in-ground, unknown, abandoned or professionally decommissioned.

Tanks that remain in the ground will eventually rust and may leak. Methods for decommissioning, also known as rendering tanks inert, have changed and although decommissioning in place (unearthing the top of the tank, cutting open the tank, removing any oil or sludge, filling with clean sand and reburying) was commonplace only 10 years ago, Fire

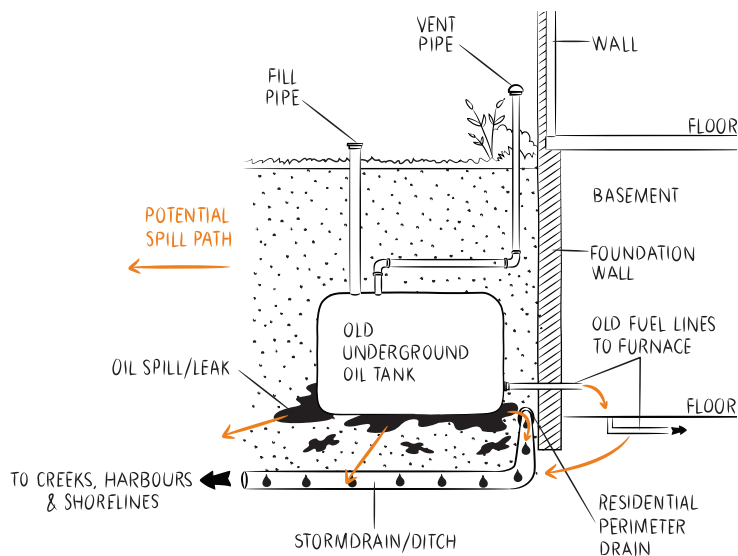
Departments now prefer and strongly recommend full removal of the underground tanks. Most financial institutions and insurance companies now require full removal of tanks and testing of surrounding soil for residual oil in order to obtain a mortgage or home insurance.

If an underground tank leaks and causes contamination, current and previous owners of that property may be held liable and have to share in the costs of cleanup and remediation. Information on responsibility for contamination and remediation is in the *BC Environmental Management Act and Contaminated Sites Regulation*.

How do I check for a potential underground oil tank?

It is difficult to determine the presence or absence of an underground oil tank, however, it is important to take steps to lower the risks by investigating. If tanks are found, it is recommended to have them professionally removed, with required permits from your local Fire Department, even if the local bylaw stipulates that decommissioning is permissible.

1. **Call your local government** for any records that the property had an underground oil tank. Although these databases are incomplete, residents should check for available information. Some local government records indicate whether tanks are or were present, decommissioned or have been removed. Even if the local Fire Department has signed off on a professional decommission of an underground tank, insurance companies are now requiring complete professional removal and surrounding soil testing.
2. **In the basement, look for (see illustration, below left):**
 - old fuel lines that would have come through the foundation wall. The lines may have been cut off flush with the inside foundation wall and patched or some of the ends may still be jutting out; and
 - a linear patch on the original cement floor where a fuel line that ran to the furnace may be present.



An illustration of an underground oil tank and its potential spill path.

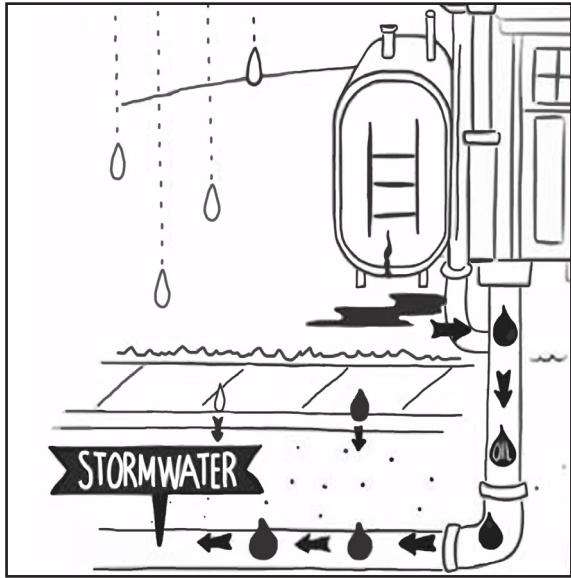
3. **Outside, on the property there is often no obvious signs of an abandoned or decommissioned tank on the surface of the property's yard** because most likely the "fill pipe" and "vent pipe" have been removed. Hire a professional to scan* the entire property (front, side and backyard) with available technologies such as, metal detectors, Ground Penetrating Radar (GPR) and Electro-magnetic Surveys. If you find one tank do not stop scanning the property, in some cases multiple tanks are present.

* Accuracy of these scanning technologies varies. GPR is applicable in the widest site scenarios. Be aware that these technologies and service providers are not regulated nor is there a professional designation for those performing and interpreting the data. Those providing these services are not liable for any tanks that they do not find. Do your research prior to hiring any third party.

Maintaining Above Ground Tanks

Outside, in Garage or Basement

How do I know if my tank is at risk of leaking?



Often the first sign of a leak is the smell of home heating oil with or without visible source of the odour. If you cannot find leak this may indicate that oil is in the perimeter drains. Unusual changes in fuel consumption can also indicate a leak. Condensation inside the tank may lead to the tank rusting internally and vulnerable to leaking. Note the date stamp on the tank indicating the age of the tank, and check with your insurance provider how much longer it is insurable.

A tank may be at risk of a leak if you find any of the following conditions:

- ✓ Rusting, dents or damage on the outside of the tank;
- ✓ An abnormal odour around tank or furnace;
- ✓ Thin layer of oil around weld seams on tank or stains under tank;
- ✓ Unstable legs of tank;
- ✓ Settling of concrete supporting the tank;
- ✓ Bent or pinched fuel lines or broken or cracked fill gauge.

How to Prevent Home Heating Oil Tank Spills and Leaks

Always	After Each Fill	Seasonally
<ul style="list-style-type: none"> • Make sure your tank complies with the standards of your local government bylaws, BC Fire and Building Codes and home insurance company requirements. • At minimum, have a pan and kitty litter handy in case of leaks or spills. Spill kits are available at safety supply stores. • Be alert to oil smells near tank or in basement. • Only use new oil. Don't use recycled or old oil. Water, sludge and bacteria in old oil can cause corrosion and leaks, even in a new tank. • Avoid damaging the fuel line between the tank and heating system. Be especially careful when performing activities near tanks or furnaces. • When retiring a tank, have it professionally removed and make sure all piping is removed or purged & capped. Be sure to meet all local government requirements, as well as home insurance standards, which may be higher. • If possible, have the new tank professionally installed away from any drains and natural water sources to prevent spills from escaping, with all required permits from your local Fire Department. 	<ul style="list-style-type: none"> • Check the tank and lines for problems after each fuel delivery. • Be alert to any oil smells near the tank and immediately call your fuel supplier if there is a smell of oil. After hours call the non-emergency phone number of your Fire Department. • Watch your bills for sudden or unexplained increases in the amount of oil you are using. 	<ul style="list-style-type: none"> • Inspect the outside of your tank for punctures and rust, particularly where legs are welded to the tank. Call a professional if you see oil stains or weeping around welds. • Take care when working around or storing items near the tank, fuel lines and filters so that you do not accidentally damage them. • Inspect all fuel lines. • Keep the tank full over the summer to reduce condensation inside metal tanks which can cause corrosion. • Have your furnace serviced or inspected, annually.

Home Heating Oil Tank Spill Response

What do I do?

If you see or smell oil around your home or in the basement take these three steps:

1. **Eliminate all sources of ignition** - turn off the fans, furnace, baseboard heaters, fireplaces, stove, etc.
2. **Immediately call Emergency Management BC Emergency Response 1-800-663-3456 (24/7).**
3. **If you find a spill or a leak:**
 - Try to contain and stop the spill from spreading with a pan and towels or kitty litter.
 - If spill poses immediate threat to people also call 911.
 - If the spill enters the drains or goes onto a public road also call your local government Public Works Department. Numbers are listed at: www.crd.bc.ca/report-spill.
 - Contact your fuel supplier or a qualified hazardous materials contractor to assist with the cleanup.
 - Contact your insurance agent if needed.
 - Have a professional replace tank or components.

If heating oil is spilled or a tank has been leaking, the site may be considered contaminated. The *BC Environmental Management Act and Contaminated Sites Regulation* requires owners to remediate contamination. This legislation also establishes who pays for the remediation which can include previous owners. Insurance companies often have higher standards than governmental regulations, so it is essential that property owners, or potential property owners, talk to both the local government and home insurance provider about requirements and risks.

How to Report a Spill or a Leak

1. Call **Emergency Management BC Emergency Response 1-800-663-3456 (24/7).**
2. If spill poses immediate threat to people also call 911.
3. If the spill enters a storm drain, ditch or goes onto a public road also call your local government Public Works Department, phone numbers can be found at: www.crd.bc.ca/report-spill.

Insurance, Policies & Regulations

Private Home Insurance Policies

Insurance policies do not cover costs related to oil spills or leaks or any required cleanup of contamination. Most insurance policies only cover damage to household contents and structural damage to the house. Owners of a property with a contamination source (leaky tank) are financially liable for any cleanup and environmental remediation required.

New or renewed home insurance policies require:

1. **Tanks to be installed to BC Fire and Building Code**, under a specified age, double-walled and meet additional insurance industry standards, which may be above and beyond governmental requirements; and
2. **At time of property purchase, an inspection and scan of the property must be completed** to determine if one or more underground tanks are present and if so, they must be removed even if they have been previously decommissioned or rendered inert.

Provincial & Federal Regulations & Local Government Bylaws

Installation, decommissioning/rendering inert or removing a fuel tank or oil burning equipment must be carried out by professionals and in accordance with the applicable provisions of the: *BC Building Code; BC Fire Code; CAN/CSA B139-Installation Code for Oil Burning Equipment*; and all applicable Local Government Bylaw(s) (which will vary by local government).

The federal government regulates home heating oil tanks on federal and First Nations reserve lands. Find out more about Environment Canada's Petroleum and Allied Petroleum Products Storage Tanks Regulations at: www.canada.ca > *Storage tanks for petroleum and allied petroleum products*

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