

## Removal of Residential Underground Storage Tanks

Residential heating oil storage tanks have been installed and used in Canada for over 60 years. There are two types: aboveground tanks (typically found in basements or outside of a home) and underground tanks (buried). Many of these storage tanks are now abandoned or unused, as alternative heating sources – such as natural gas, propane, and electricity – have become available.

Underground storage tanks are a concern because they are a potential source of contamination of soil and groundwater. They also pose a fire and explosion hazard under certain conditions.

The current **British Columbia Fire Code** states that the owner of owner's authorized agent is responsible for carrying out the provisions of the Code, and Article 4.3.16.1(1) of the BC Fire Code Regulation states that"

*"The removal, abandonment in place, disposal or temporary taking out of service of an underground storage tank shall be in conformance with good engineering practices. (See Appendix A).*

- A. – 4.3.16.1(1) *The following documents are examples of good engineering practice for activities listed in sentence 4.3.16.1(1):*
- *Annex C of NFPA30, "Flammable and Combustible Liquids Code,"*
  - *API RP1604, "Closure of Underground Petroleum Storage Tanks,"*
  - *CCME PN 1326 "Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products," published by the Canadian Council of Ministers of the Environment.*

A permit must be obtained by attending City of Langford City Hall, in order to "remove" or "abandon in place" a residential underground storage tank. City Hall is located at **2<sup>nd</sup> Floor, 877 Goldstream Avenue, Langford, BC V9B 2X8.**

### WHERE TO START

The City of Langford Fire and Building Departments offer the following advice for homeowners regarding the removal or decommissioning of underground storage tanks:

#### Ways to Find Your Tank

- 1) Look for visual signs of a tank's presence such as cast iron piping coming from the ground.
- 2) Hire an Oil Tank Contractor to search for the presence of an oil tank using a metal detector.
- 3) Contact the City of Langford Building Department to access information from their property database. Note that the database information may or may not be complete and does not include site plans.

#### STEP 1 – HIRE A CONTRACTOR AND/OR REGISTERED PROFESSIONAL

Check the yellow pages for Registered Professionals and Oil Tank Contractors.

Ensure the Contractor you select:

- Understands the **BC Fire Code** current edition and **Environmental Management Act** regulations pertaining to oil tank removals and oil spills;
- Is reputable and knowledgeable in dealing with Oil Storage Tanks;
- Provides you with a written contract with a specific cost estimate based on property conditions and states clearly what work is to be performed;
- Is insured and licensed to perform work in the City of Langford;
- Has **Worksafe BC** coverage.

## STEP 2 – TANK REMOVAL

Your contractor must:

- Obtain all required permits from City Hall;
- Empty oil from the tank and clean out all residues or arrange for someone else to perform this work;
- Excavate the tank and piping;
- Dispose of the tank, piping, residues, soil and any remaining oil or special waste at locations authorized to accept them;
- Check for signs of leakage, and potential contamination into surrounding soils;
- If the contractor/registered professional determines that no contamination is evident, backfill the hole to grade; and
- Provide photographs, invoice and/or bill of lading and manifest for oil, special waste and tank disposal and contaminated soil, if any.

The Homeowner should:

- Observe the tank removal from a safe distance;
- Record any problems that are encountered by the Contractor;
- Take notes and photographs to document the work, even if everything appear to be going well.

## STEP 3 – CONTAMINATION MEASUREMENT

In some cases the oil within the tank may have leaked into surrounding soils and soil sampling is required. The contamination measurement must be a comprehensive soil test performed by a qualified testing laboratory. The laboratory will provide comprehensive testing and reporting of soil condition. You should observe the inspection and obtain written observations from people at the scene, including the Contractor, even if the tank and the piping appear sound and there are no signs of contamination.

The contamination measurement includes:

- Recording the condition of the tank, piping and soil;
- Checking the tank and piping for holes;
- Examining the feed line and soil surrounding it;
- Checking the excavated area for visible oil stains or strong odours;
- Noting problem areas on a drawing or map of the excavation;
- Photographing the area to support written documentation;
- Taking a composite soil sample to be analyzed for petroleum constituents.

**\*\*RECOMMEND ALWAYS TAKING SOIL SAMPLES\*\***

## STEP 4 (if necessary) – REPORT LEAKS/SPILLS

Provincial law requires that you, your contractor and/or the professional engineer report certain petroleum releases, or threats of release, to the local fire department (City of Langford) and the BC Ministry of Environment (depending on the nature and volume of the release, as well as contamination levels).

Do not, under any circumstances, allow your Contractor to excavate to the point where the structure of your home is compromised. All excavations over 4 feet deep require shoring.

Any soil suspected of being contaminated should be separated from the soil that appears to be clean (so you will not be paying for the disposal of clean soil).

Check with your insurance agent to see if you are covered in the event of an oil spill or leak at your property. Most insurance companies now do not insure leakage from underground tanks.

## STEP 5 – SUBMIT RECORDS

It is necessary to submit good records of the tank removal, inspection process and any necessary clean-up work. It's also important to keep copies as you may be asked to produce them later if you sell your property, obtain financing, renew your home insurance or file a claim.

Your documentation should include:

- An approved onsite inspection by City of Langford Building and Fire Officials;
- Written documentation from the licensed contractor confirming that the surrounding soil is not contaminated and the tank has been removed, in conformance with the BC Fire Code and City of Langford requirements;
- Shipping records documenting recycling or disposal of the tank, piping, residues, soil and fuel;
- Photographs taken at each step of the removal process;
- An accurate drawing showing where the tank was located;
- Contamination measurement results, including analytical results, if samples are taken;
- Documentation of any clean-up work, if performed; and
- Other notes and photos taken during the removal, inspection and clean-up (if necessary).

*Once all of the required documentation has been received by the City of Langford Building Department, the permit will be finalized, and all documentation will be kept in the City's database for future reference.*