

# UNDERGROUND FUEL OIL TANKS: Information for Surveyors

By Gordon J. Whicher

Occasionally, Ontario land surveyors come across indications of an underground fuel oil tank. For example, a surveyor may discover an outlet pipe half-buried in the earth. Indications of a leaking fuel oil tank include the odour of fuel oil, soil discoloration and sheen on standing water. Where signs of an underground tank or a fuel oil leak are discovered, what are the surveyor's obligations to show the feature on a survey or to disclose under applicable law?

Leaking underground fuel oil tanks represent a significant environmental concern. Through the 1960s to 1970s an underground tank was the preferred approach to store heating fuel. It offered a property owner the opportunity to use a larger tank and to place it underground, reducing odours and the risk of fire within buildings on the property. Over time, many tanks were abandoned as owners began to use alternate heating sources, such as natural gas. Often, in order to avoid internal corrosion from water, fuel oil tanks were abandoned with fuel oil in them. If the property has changed hands, the current owner might not be aware of the tank. If the owner knows of the tank, they may still be unaware of its legal and cost implications.

Water that finds its way into an underground fuel tank sinks to the bottom and mixes with chemicals in the fuel oil to corrode the tank and related piping. Certain types of soil can corrode tanks and piping from the outside. Estimates from American research indicate that 15% to 20% of all underground fuel tanks leak to some extent. Cleanup costs range from \$5,000 to \$1,000,000, with an average cost of \$40,000<sup>1</sup>. Canadian estimates suggest there are 7,500 to 20,000 leaking underground fuel oil tanks in Canada<sup>2</sup>.

The impact of even a small amount of fuel oil as it spills into the environment can be significant. Fuel oil can permeate the soil, traveling along the path of least resistance for a considerable distance from the source of the contaminant. Fuel oil will travel in directions that are difficult to predict through soil layers or into drainage tiles and around the footings of the building. A five litre spill into potable water can render one million gallons of water unfit for consumption<sup>3</sup>.

At least two sources of law impact on leaking underground fuel oil tanks. One involves the Technical Standards and Safety Authority (the "TSSA") established in relation to the *Technical Standards and Safety Act, 2000*<sup>4</sup>. The purpose of this Act and, by extension, the TSSA is to enhance public safety through application of technical standards relating to a number of designated matters, including hydrocarbon fuels. Fuel Oil Regulation 213/01 is made under that Act. In 2001 the Minister adopted the

Fuel Oil Code Adoption Document as part of the Regulation. The Fuel Oil Code Adoption Document adopts and amends the National Standard of Canada CAN/CSA-B139-00 Installation Code for Oil Burning Equipment (the "Installation Code"). As a result, the Act, the Regulation and the Installation Code form part of the applicable law. Penalties for breach of these provisions include a fine for a person of up to \$50,000 or imprisonment of up to one year and fines of up to \$1,000,000 for a corporation.

Many of the requirements under this legal framework relate



specifically to those who must be certified in order to handle fuel oil or to install, repair, service or remove fuel oil appliances. For example, section 7 of the Regulation prohibits the supply of fuel oil to an underground tank unless the tank is registered. Section 14 requires every fuel oil distributor to file with the TSSA a record of every underground tank supplied by that distributor. Sections 21 through 26 of the Regulation impose a duty upon a certificate or licence holder, operator, contractor or distributor to notify the TSSA where it appears that a dangerous occurrence, as defined, (including a fuel oil leak) has occurred or where an unacceptable condition exists. These sections do not impose a general duty to disclose upon other members of the public.

However, there are requirements applicable to other persons. For example, section 12 of the Regulation provides in part that no person shall dig, bore, trench, grade or break ground with mechanical equipment without first ascertaining from a licensed fuel oil distributor the location of any pipeline that may be interfered with. A "pipeline" in this context means a pipe and related

<sup>1</sup>A Primer on Petroleum Bulk Storage Tanks and Petroleum Contamination of Property, Paul H. Ciminello, ASHI Technical Journal, Vol. 3, No. 1, Spring 1993 p.35-39

<sup>2</sup>Research and Development Highlights, CMHC, Soil Gases and Housing: A Guide for Municipalities, (1993) NHA 6728, 93-202 Technical Series

<sup>3</sup>Residential Fuel Oil Spills Can Ruin a Lifelong Investment, Dec Doran, Oil Spill Control Services, Without Prejudice Magazine, the publication of the Ontario Insurance Adjusters Association

<sup>4</sup>Technical Standards and Safety Act, 2000 S.O. 2000, Ch. 16



elements used for the distribution of oil (such as equipment within a right of way), but “pipeline” in this section does not refer to the apparatus of the end user.

Sections 16.1 and 16.2 of the Installation Code require the owner of a storage tank system or the owner of the property to investigate where there is suspicion of a leak. Where there is a leak into the environment or within a building, those persons must notify the Director of the TSSA. They must cease using any leaking part of the storage tank system and engage TSSA certified technicians to empty any remaining products. They must repair, replace or remove all defective storage tank systems and equipment.

Appendix A2 of the Installation Code establishes new specifications for the construction and installation of underground fuel oil tanks, including requirements for features such as leak detection equipment. Table A1 provides a schedule requiring all underground tanks to be upgraded or removed within the times specified. For example, all tanks that were installed 20 to 24 years ago must be removed or upgraded before June 1, 2007.


Appendix A2.18.4 provides that the owner or operator of an underground tank system or the owner of the affected property must remove the tank and any connected piping where the system has not been used for more than 2 years. Appendix A11 goes further and provides, in part, that where an underground tank will not be used the owner of the tank must remove the product and the tank and remove any contaminated soil to required standards. Appendix A2.18.6 provides that, even where a tank system has been permanently put in disuse but not

removed prior to the June 1, 2001 adoption date of the Installation Code, the owner or operator must assess the extent of contamination and remove the underground tank system.

The second source of law arises under the *Environmental Protection Act*<sup>5</sup>. A leaking fuel tank is a discharge of a contaminant, which will often have an adverse effect on the natural environment within the meaning of the “EPA”. Section 6 of the EPA prohibits a discharge of contaminants and provides that the amount of contaminant may not exceed levels prescribed under its regulations. Section 14 prohibits discharges that cause or are likely to cause an “adverse effect”, as defined. Sections 13 and 15 of the EPA require every person who discharges into the natural environment or who is responsible for the source of a discharge to notify the Ministry of the Environment forthwith. Similar provisions can be found in Part X of the EPA relating to spills of pollutants, including a duty to remediate applicable to persons who owned or controlled the pollutant at the time of the first discharge of the pollutant.

Control and remediation orders may be issued by the Director appointed under the EPA against a range of people. These include prior and current owners or occupants and those who have or had control over the source of the contaminant. Records of Site Condition Regulation 153/04 made under the EPA sets out required standards for remediation. Although the EPA creates significant penalties for breach of its provisions, the Director may not become actively involved unless the contamination migrates off-site, including contamination that finds its way into the water table. In circumstances where a property owner

<sup>5</sup>Environmental Protection Act, R.S.O. 1990, c.E.19



# Northway-Photomap Inc.

47 Lesmill Road, Toronto ON - M3B 2T8  
visit: [www.northway-photomap.com](http://www.northway-photomap.com)



Bus: (416)441-6025 - Fax: (416)441-2432  
email - [info@photomapltd.com](mailto:info@photomapltd.com)

**Federal and Provincial Map Dealers  
Canadian Nautical Charts & Publications**

**Current & Historical  
Aerial Photography Library  
Photo-Lab Services**

**Land Information Services  
Digital Ortho-Photography**

**3D LiDAR Modeling Scanner  
Topographic Mapping  
Volumetric Calculations  
GPS Ground Control**





discovers and voluntarily deals with an underground tank, the Director's involvement may be limited to receiving notice of the discharge then considering the proposed remediation plan.

Where the property owner is proposing a change of use for the property, the EPA requires the owner to file a record of site condition prepared by a qualified person. The record of site condition describes proposed remediation measures. These may include transferring contaminated soil to an authorized treatment facility. If the owner seeks to leave contamination on-site above permitted standards, the record of site condition may include a risk assessment. The Director may reject or acknowledge the record of site condition. Where the approach in the record of site condition involves a risk assessment, the Director may also issue a certificate of property use to the owner and provide a copy to the local municipal clerk and chief building official. That certificate typically contains restrictions relating to ongoing use or future construction on the property. The record of site condition, if it is acknowledged by the Ministry, is posted as a public document on the Ministry's Brownfields Environmental Site Registry.

In many circumstances, an owner removing an underground fuel oil tank is removing some contaminated soil to an authorized soil remediation facility, but is not proposing a change of use. In those circumstances, the owner's consultant will file with the Ministry a final report indicating that the remaining soil on-site meets applicable standards. The Ministry has authority to audit this report and to require further remediation. If that audit is not undertaken, the final report remains with the Ministry, but is not lodged formally alongside records of site condition on the Ministry website; nor is it filed with the local clerk and chief building official.

Because of this legislative framework, the discovery of an underground fuel tank could have serious repercussions for an owner and for those interested in financing, developing or purchasing land. A surveyor preparing a real property report typically addresses physical features as they relate to property boundaries. The traditional emphasis includes setbacks to structures and the potential for easements and other forms of adverse property interests. A surveyor preparing a topographic survey will depict physical features in relation to potential redevelopment. Neither form of survey necessarily turns a surveyor's attention to seeking out or identifying visible indications of an underground fuel oil tank.

Where the surveyor sees something that may indicate an underground fuel oil tank, there appears to be no statutory obligation to notify relevant authorities. Under current law, it appears that statutory obligations to disclose the existence of the underground tank and to respond to contamination rest with the owner or operator and with those involved in the fuel oil industry. Nonetheless, a surveyor should be aware of the significance of the discovery and of the owner and prospective purchaser's competing interests in disclosure. Rather than risk becoming entangled in the dispute, many surveyors will simply tie the feature into the survey, without speculating on its purpose. This approach avoids the risk of the surveyor prejudicing an owner's title by incorrectly identifying something that turns out not to be a fuel tank. However, it does provide vital information to alert the owner, as well as the developer, lender or prospective purchaser, to the potential risks of an underground fuel oil tank.



**Gordon James Whicher** is a municipal solicitor involved with land development issues. He is the author of *Ontario Planning Law & Practice*.

## Insurance Advisory Tips for Members

### Tip #1

A surveyor was retained to lay out a fence along a boundary of a property adjacent to property owned by the local municipality.

Between the two properties there was a 0.3-metre reserve in favour of the municipality. The existence of the reserve was not known to the contractor retained to lay out the fence, and as a result, the fence was built intruding 0.15 metres into the reserve. The municipality demanded that the fence be removed from the reserve.

The contractor claimed he thought that the surveyor's stakes were intended to identify the position of the fence, not the limit of the property. The contractor thought that by laying off 0.15 metres from the stakes, the location of the fence would be well clear of any possible encroachment. The contractor blamed the insured surveyor for the error.

Surveyors are reminded that their intent should be made clear to any party who will be relying upon a surveyor's work exactly what is intended and to discuss with that party directly what is being laid out or, alternatively, written information or a sketch should be provided. Miscommunication between parties is a very common cause of claims.

www.

# SURVEYBATTERY.com

*Send your batteries to the company Land Surveyors have come to trust since 1994*

**Battery Re-celling for:**

**Total-Stations,  
Radios,  
Drills, etc.**



**Repairs to Most  
Magnetic Locators**

Visit our website for pricing  
[www.surveybattery.com](http://www.surveybattery.com)

**(416) 823-0489**

Dias & Dias Electronics  
1110 Kos Blvd, Mississauga, ON, L5J 4L6