REMOVAL OF UNDERGROUND STORAGE TANKS / ABANDON IN-PLACE

BC FIRE CODE

4.3.16. OUT OF SERVICE

4.3.16.1 Underground Storage Tanks

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

4.3.16.2 Aboveground Storage Tanks

1) When an aboveground *storage tank* will be out of service or unsupervised for a period not exceeding 180 days, the piping from the tank shall be capped or the valves that are necessary to achieve similar isolation of the tank shall be closed and securely locked.
2) Where a *storage tank* referred to in Sentence (1) contains *flammable liquids or combustible liquids*, the liquid level in the tank shall be measured and compared with subsequent readings taken at intervals not greater than one month.
3) When an aboveground *storage tank* will be out of service or unsupervised for a period exceeding 180 days, all liquid and vapours shall be removed from the *storage tank* and its connected piping.

4.3.16.3 Disposal

1) Where a *storage tank* is to be permanently disposed of, sufficient openings shall be cut in the tank to render it unfit for further use.

Section 4.4. Leak Detection of Storage Tanks and Piping Systems

4.4.1 General

4.4.1.1 Application

1) Except as provided in Sentence (2) and except as otherwise specified in this Code, this Section provides the minimum requirements regarding the detection of leaks in aboveground and underground *storage tanks*, piping systems and stumps.
2) This Section shall not apply to *storage tanks* that have been taken out of service in compliance with the applicable provisions of Subsection 4.3.15

4.4.1.2. Frequency and Methods of Leak Detection Testing and Monitoring

1) Every storage tank, piping system and sump, including those at *fuel-dispensing stations*, shall be tested and monitored for leaks in conformance with Tables 4.4.1.2.A. to 4.4.1.2.E., which establish the minimum requirements regarding the frequency and methods to be used for
    a) Commissioning testing,
    b) Subsequent in-service monitoring, and
    c) Testing when a leak is suspected.
2) The methods referred to Sentence (1) shall conform to Subsections 4.4.2 to 4.4.4.
3) The commissioning testing referred to in Sentence (1) shall be performed at the time of installation

a) Once backfill and surfacing have been completed but before being put into service, in the case of an underground *storage tank* or underground piping system,
b) Before being put into service, in the case of an aboveground *storage tank* or exposed piping system, and
c) Once the final surface materials have been installed but before being put into service, in the case of a sump.

4) The frequency of the in-service monitoring referred to in Sentence (1) shall be calculated from the date of the commissioning test.
5) Immediate action shall be taken when a leak is suspected and the leak detection testing referred to in Sentence (1) shall be performed if
   a) A loss of liquid or a gain of water is indicated by any of the leak detection measures described in the Section, or
   b) The level of water at the bottom of an underground storage tank exceeds 50mm.
6) Where dispenser sumps, transition sumps and turbine sumps are provided with electronic monitoring devices in accordance with Sentence 4.3.10.3.(1), the devices shall be interlocked with the dispenser or pump to shut it down upon detection of either product or a high liquid level.
7) The minimum requirements referred to in Sentence (1) shall not preclude the appropriate use of alternative solutions, innovative new technologies, or methods capable of achieving the same objectives. (See Appendix A.)

Table 4.4.1.2.A.
Leak Detection Testing and Monitoring of Underground Storage Tanks
Forming Part of Sentence 4.4.1.2. (1) and 4.4.2.1.(5)

<table>
<tr><th rowspan="2">Type of Containment</th><th rowspan="2">Commissioning Test</th><th colspan="2">In-Service Monitoring</th><th rowspan="2">Leak Suspected</th></tr>
<tr><th>Continuous</th><th>Periodic</th></tr>
<tr><td rowspan="5">Single-walled (1)</td><td rowspan="5">N/A (2)</td><td>Inventory Reconciliation</td><td>Precision Leak Detection Test every 2 years</td><td rowspan="5">Precision Leak Detection Test</td></tr>
<tr><td>Inventory Reconciliation and Monitoring Wells</td><td rowspan="2">Precision Leak Detection Test every 5 years</td></tr>
<tr><td>Statistical Inventory Reconciliation (SIR)</td></tr>
<tr><td>Automatic Tank Gauge</td><td rowspan="2">Non Required</td></tr>
<tr><td>Continuous In-Tank Leak Detection</td></tr>
<tr><td>Double –walled (3)</td><td>Precision Leak Detection Test or Secondary</td><td>Secondary Containment Monitoring</td><td>None Required</td><td>Precision Leak Detection Test or Secondary</td></tr>
</table>

	Containment Test (4)			Containment Test (4)

Notes to Table 4.4.1.2.A.:
(1) Applies to single-walled storage tanks of typical construction, including storage tanks that do not meet the requirements for double-walled tanks.
(2) Not applicable because underground storage tanks must be of double-walled construction as per Sentence 4.3.8.1.(1).
(3) Applies to double-walled storage tanks, which have an interstitial space that allows for monitoring using high-or low-tech methods.
(4) The Secondary Containment Test is a precision test capable of detecting leaks in the interstitial space of the tank. Risers, connections and vents are also susceptible to leakage and must therefore also be tested.

A qualified contractor is required for the removal of an underground storage tank and a permit must be issued. The contractor must have a valid Burnaby Business License and provide their license number along with the scheduled date of the tank removal when applying for the permit. The Burnaby Fire Departments Fire Prevention Division processes all storage tank decommissioning permits.

These permits can be obtained in person at Burnaby Fire Station #1, located immediately north of Canada Way at: 4867 Sperling Ave. (604-294-7195)

Burnaby Fire Department
4867 Sperling Avenue
Burnaby, BC V5E 2S9

Costs:
Residential permit: $50.00 **per tank** (*not per site*, eg. 1 site with 2 tanks = $100)
Commercial permit: $100.00 **per tank** (*not per site*, eg. 1 site with 2 tanks = $200)

We only accept cash or cheque (made out to the City of Burnaby).