



Fuels Safety Program	Ref. No.: FS-167-09	Rev. No.: 1
ADVISORY	Date: December 21, 2009	Date: July 29, 2011

Subject: Registration procedures for underground fuel oil storage tanks
Sent to: Posted on website

As of May 1, 2002, underground fuel oil storage tanks are required to be registered with the Technical Standards and Safety Authority (TSSA) under Ontario Regulation 213/01 (Fuel Oil Regulation).

7. (4) No person shall supply fuel oil to an underground tank unless the underground tank is registered.

As a condition of registration, new installations, replacement or modification of existing installations require TSSA engineering design review, inspection of installations prior to backfilling, and inspection after completion.

The submittal of the application to register an underground fuel oil storage tank shall include drawings of the installation, from the main storage tank to the appliance, and a list of components (manufacturer, model and specifications) to be installed. While there is no cost for the registration, engineering and inspection fees will be billed accordingly.

TSSA engineering design review prior to installation includes, but is not limited to, the following:

1. Name and TSSA registration number of contractor responsible for the installation
2. Name and TSSA certificate number of petroleum mechanic responsible for the installation (please note that an oil burner technician is required to connect the piping to the appliance and to install the appliance)
3. Two copies of drawings describing the tank and piping installation to the auxiliary tanks and appliances including appliance venting
4. Equipment specifications and applicable approvals including the leak detection system, piping, sumps, tank(s), appliance(s), appliance venting
5. Proper pipe sizing, vent, fill, overflow
6. Cathodic protection for all metal underground components
7. Restrictions on return lines and temperature of return fuel
8. Anti-siphon valves, where required,
9. Temperature rating of fuel components including filters and hoses; and
10. Piping details between the transition sump and the building/enclosure.

The engineering design will be reviewed within 20 to 30 business days. (Rush services are available, please see the following page for further information).

During the tank installation and prior to the tank and piping being backfilled, a TSSA inspection shall be required and the following shall be reviewed;

1. Name and TSSA registration number of contractor responsible for the installation;
2. Name and TSSA certificate number of petroleum mechanic responsible for the installation;
3. Installation coincides with approved drawings;
4. Pressure testing of the all piping (as per manufacturer's instructions and the code);
5. Hydrostatic testing of sumps;
6. Verification of certification of the tank and components;
7. Slope of piping;
8. Backfill material; and
9. Installation of cathodic protection system, where required.

After backfilling has been completed and the leak detection system has been installed, a TSSA inspection shall be required and the following shall be reviewed:

1. Copies of tank deflection measurements for fiberglass tanks
2. Testing of the leak detection system
3. Certification of the cathodic protection after backfill, where required,
4. Inside installation and connection to appliances and day tank system;
5. Testing of the day tank system, where required; and
6. Venting of the appliance.

TSSA may inspect any other fuel system or appliance at the location. TSSA Inspection requires a minimum of 10 business days notification.

RUSH Services (5 to 10 working days):

- If requested, TSSA will review the submission on an expedited basis. TSSA cannot guarantee that the requested time frame will be met because completion will depend on whether or not qualified staff is available to complete the review and the extent of questions arising during the review.
- TSSA will complete the engineering review and release the submission to inspection or will advise why the review cannot be completed. The fee for expedited service is 2 times the usual rate. Additional charges will apply for services required outside of usual business hours (Monday to Friday 8 a.m. to 5 p.m.).

RUSH inspections are defined as follows:

- Inspections requested within 5-10 business days notice; or,
- Inspections carried out during other than usual business hours Monday to Friday, 8 a.m. to 5 p.m.