

Tank Tips 4

on Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations

New storage tank system installations

If you're installing a storage tank system for petroleum or allied petroleum products your system must now comply with new Environment Canada regulations. This fact sheet will give you an overview of the major changes you need to be aware of when choosing equipment and contractors, and it will provide you with contacts and references if you need more detailed information.

Spills occur most often at the fill pipe opening when the delivery truck's hose is being disconnected. Repeated releases of even small volumes of product can cause significant environmental problems.

What has changed?

On June 25, 2008, Environment Canada implemented new regulations governing storage tank systems under federal jurisdiction as described in the regulations, including tank systems located on federal and Aboriginal lands. These regulations have specific requirements for the design and installation of storage tank systems. You'll need to read the regulations to plan your system. Copies of the *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* are available on our website.

Your new system must be identified with Environment Canada before you have it filled for the first time. You'll be issued an identification number which must then be visible on or near your storage tank system. After June 25, 2010, the person who delivers your product will be prohibited from filling tank systems without a visible identification number.

Can anyone design and install your new system?

Under the regulations your storage tank system must be built using design documents that bear the stamp and signature of a professional engineer (subsection 34(1)). The system must also be installed by a person approved to do so in the province or territory in which the system is being installed. If no approval process exists in your province or territory, then the installation must be supervised by a professional engineer.

What are the requirements for new tanks and components?

New storage tank systems must bear a certification mark to indicate that they conform to the standards set out in section

The volume of crude oil or petroleum products that is used today dwarfs all other chemicals of environmental and health concern. Due to the numbers of facilities, individuals, and processes and the various ways the products are stored and handled, environmental contamination is potentially widespread.

14 of the regulations. Many of these standards are drawn from the Canadian Council of Ministers of the Environment *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*. This document is also available on our website. Some of the requirements for new systems are as follows, but for detailed and specific information you will need to read section 14 of the regulations as well as the referenced sections of the CCME *Code of Practice*.

Underground tanks must be double-walled with an interstitial space that can be monitored, and have:

- corrosion protection
- overfill protection
- spill containment
- containment sumps
- liquid- and vapour-tight connections.

Aboveground field-erected tanks must have:

- corrosion protection
- secondary containment
- containment sumps, if applicable
- overfill protection.

Aboveground shop-fabricated tanks must have:

- corrosion protection
- secondary containment
- containment sumps
- overfill protection.

What about requirements for new piping?

Inadequate or badly installed piping is a common source of leaks and can lead to significant soil and groundwater contamination. Under these regulations, new piping must adhere to the following:

- bear a certification mark and be of steel, copper or non-metallic construction; or be a flexible metallic hose
- no buried or concealed mechanical joints
- underground piping, up to 75 mm in diameter, must have secondary containment and, in the case of double-walled steel piping, cathodic protection
- underground piping larger than 75 mm in diameter must have secondary containment or cathodic protection.

Are there any other major requirements?

As with piping and tanks, all components of your system must bear certification marks indicating that they conform to the standards set out in the regulations. In addition, your product transfer area must now be designed to contain spills

Without proper leak detection, a loss of five litres of fuel per day from a relatively large tank (20 000 to 30 000 litres) could go undetected for several years ... Over the lifespan of the tank, such a fuel loss rate would amount to tens of thousands of litres of leaked fuel.

(section 15). Finally, it is mandatory that you have an emergency plan in place before your system receives its first fill (sections 30 – 32).

What about record keeping?

Under the new regulations you are required to keep records of the design and installation of your system for the life of the system. These must include a record establishing that the system was installed by an approved installer or supervised by a professional engineer, as well as a set of ‘as-built’ drawings bearing the stamp and signature of a professional engineer. Please see section 46 of the regulation for details of this, and other, record keeping requirements.

Where do you get more information?

On our website: www.ec.gc.ca/st-rs .If you’d like us to mail you the information below please call: 819-934-2991 (0900h – 1700h EST/EDT)

The following documents are available on our website:

- *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*
- *Tank Tips* fact sheets, each one covering a specific part of the new regulations
- *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*, Canadian Council of Ministers of the Environment
- *Canadian Environmental Protection Act, 1999*
- *Compliance and Enforcement Policy for the Canadian Environmental Protection Act, 1999*

If you have specific questions on the regulations please contact your regional office.

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Prairie & Northern		780-951-8600
Ontario	EnviroInfo.Ontario@ec.gc.ca	416-739-4826
Quebec	quebec.lavoieverte@ec.gc.ca	800-463-4311
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This material has been prepared for convenience of reference and accessibility and does not have an official character. It is of a general nature only. For all purposes of interpreting and applying the regulations, users must consult the official version of the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations.