



NEW STORAGE TANK SYSTEM INSTALLATIONS

If you are installing a storage tank system for petroleum or allied petroleum products, your system must comply with the *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*. This fact sheet tells you what you need to know when choosing equipment and contractors for new systems.

Tank Tip 4

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

Under the regulations (section 14), all storage tank systems installed after June 12, 2008, must comply with the requirements relating to:

- design and installation of systems
- tanks and components
- piping
- product transfer areas and emergency plans
- record-keeping

Who can design and install your system?

Under section 34 of the regulations, your storage tank system must be built using design documents that are stamped and signed by a professional engineer. Also, as set out in section 33 of the regulations, the system must be installed by a person approved to do the work in the province or territory where the system is installed. If no approval process exists in your province or territory, the installation must be supervised by a professional engineer.

What are the requirements for tanks and components?

Storage tank systems must carry a certification mark showing that they meet the standards set out in section 14 of the regulations. Many of these standards come from the *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*, established by the Canadian Council of Ministers of the Environment (CCME).



Some of the requirements for storage tank systems are as follows (Section 14):

Requirements Checklist

	Underground tanks	Aboveground field-erected and shop-fabricated tanks*
Corrosion protection or cathodic protection	✓	✓
Spill containment	✓	✓
Containment sumps (as applicable)	✓	✓
Liquid- and vapour-tight connections	✓	✓
Secondary containment	N/A	✓
Overfill protection	✓	✓
Double-walled	✓	N/A

*Field-erected storage tanks are usually those constructed on-site (e.g., API-653). Shop-fabricated storage tanks are manufactured off-site and brought on-site (e.g., ULC-S601). Both kinds of tanks have similar regulatory requirements but are constructed following different rules given in the regulations.

What are the requirements for piping?

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

- be made of copper or carry a certification mark showing that it meets certain standards specified in the regulations (either ULC/ORD-C971 or one of the standards referred to in section 5.2.1(1) (a), (b), (c) or (g) of the [Environmental Code of Practice](#), CCME), and
- have no buried or concealed mechanical joints.

There are also requirements relating to the size of piping. Underground piping up to and including 75 mm in diameter must have secondary containment, and underground piping larger than 75 mm in diameter must have secondary containment, leak detection or cathodic protection.

Are there any other important requirements?

As with piping and tanks, all components of your system must bear certification marks showing that they meet the standards set out in the regulations. In addition, your product transfer area must be designed to contain spills during the transfer process. You must also have an emergency plan in place before the first transfer of product to your storage tank system. Your system may also require leak detection and/or monitoring (See [Tank Tip 7 – Preparing Your Emergency Plan](#), [8 – Leak Detection and Monitoring](#), and [13 – Spill Containment at Product Transfer Areas](#)).

What records need to be kept?

(See [Tank Tip 10 – Record Keeping for Your Storage Tank System](#))

Under the regulations, you must keep records of the design and installation of your storage tank system for the duration of its lifetime. These include:

- a record showing that the system was installed by an approved person as defined in the regulations, and
- “as-built” drawings that have the stamp and signature of a professional engineer.

You must also keep records relating to tank filling and leak detection and/or corrosion protection testing for a period of five years. Please see section 46 of the regulations for more details and for other record-keeping requirements.



For more information, please visit our website at www.ec.gc.ca/rs-st. If the information you need is not available on our website, please contact your regional office or the Storage Tank Program:

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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 and seek their own legal advice as appropriate.

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