TANK TIP 12

STORAGE TANK REGULATIONS CHECKLISTS

The **Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations** classify storage tank systems according to when they were installed:

- if your system was already in place before June 12, 2008, it is an **existing** system
- if your system was installed after that date, it is a **new** system

Some aspects of the Regulations apply to all systems, and some apply specifically to new or existing systems. If you are planning to install a new system, it is important that you read the Regulations before purchasing and installing equipment.

Checklist 1 summarizes the requirements for **all systems**

Checklist 2 summarizes the requirements for **new systems**, divided into five sections according to the type of system

Checklist 3 summarizes the requirements for **existing systems**, divided into six sections according to the type of system

Note: In some places, the Regulations refer to the **Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products, PN 1326** established by the Canadian Council of Ministers of the Environment (CCME Code). The Regulations incorporate by reference certain parts of the CCME Code, and these parts become enforceable. The Regulations also reference the Canadian Environmental Protection Act, 1999 (CEPA).

CHECKLIST 1: REQUIREMENTS FOR ALL SYSTEMS (EXISTING AND NEW)

✓	REQUIREMENTS	REGULATIONS	MORE INFORMATION
	Identify tank systems	Section 28 + Schedule 2	Tank Tip 3 Identifying Your System
	Use the Federal Identification Registry for Storage Tank Systems (FIRSTS) at www.ec.gc.ca/rfiss-firsts/secureprotege/LoginEntree.aspx or the identification form		
	Display the identification number on or near the system		
	Update FIRSTS within 60 days if any of the information required for the identification changes		

✓	REQUIREMENTS	REGULATIONS	MORE INFORMATION
	Product delivery personnel fill tanks only if they see an identification number on or near the system	Section 29	Tank Tip 10 If You Deliver Products
	Product delivery personnel notifies the operator if a release in liquid form to the environment occurs, or if they see any sign of a leak or any release		
	Prepare and keep up-to-date an emergency plan for each storage tank system	Sections 30–32	Tank Tip 6 Preparing Your Emergency Plan
	Design product transfer areas to prevent releases in liquid form from reaching the environment	Section 15	Tank Tip 7 Containment at Product Transfer Areas
	Perform leak tests immediately if a tank system is suspected to be leaking and does not have continuous leak monitoring	Section 26	Tank Tip 5 Handling Leaks
	Immediately withdraw from service leaking systems or components until leaks are repaired	Subsection 3(1)	
	Releases to the environment are prohibited	Section 2.1	Tank Tip 8 Reporting a Release
	Notify your provincial authority responsible for environmental emergency notifications of any release to the environment	CEPA Paragraph 212(1)(a)	
	For releases over 100 litres, also send a written report to Environment and Climate Change Canada	Section 41	
	Keep regular records including:	Section 46	Tank Tip 11 Record Keeping For Your Storage Tank System
	Inspections	Section 27	
	Installation	Subsection 33(2) + Section 34	
	Operation and maintenance	Subsection 40(2)	
	Maintain oil-water separator according to the Regulations:	Sections 35–39	
	Take monthly measurements of layers or have a continuous monitoring system		
	Have procedures for the proper disposal of free oil, separated solids and discharged water		
	Keep records of any operation and maintenance		
	Have procedures for the proper disposal of tank bottom water	Subsection 40(1)	N/A
	Follow procedures specified in the Regulations for temporary withdrawal from service of a system or component	Sections 42–43	Tank Tip 9 Withdrawal and Removal of Storage Tank Systems
	Put the system or component back into service within two years. Otherwise, the withdrawal becomes permanent		
	Follow procedures specified in the Regulations for permanent withdrawal or removal of a system or component	Sections 44– 45	
	Only a person designated under the Regulations is permitted to permanently withdraw or remove a system or component from service		
	Products stored in the system are compatible with the materials used in the manufacturing of the system	Section 11	N/A
	System has a fill pipe and vent line, and all other openings are sealed or connected to piping	Section 12	
	Do **not** use secondary containment area for storage	Section 13	

CHECKLIST 2: REQUIREMENTS FOR NEW SYSTEMS

✓	REQUIREMENTS	REGULATIONS	MORE INFORMATION
	GENERAL REQUIREMENTS		
	Corrosion protection	Section 14	Tank Tip 2 New Storage Tank System Installations
	Overfill protection		
	Containment sumps, as applicable		
	Certification mark indicating tank design meets a standard referenced in the Regulations		
	Design stamped by a professional engineer	Subsection 34(1)	
	As-built drawings stamped by a professional engineer	Subsection 34(2)	
	Identification number in place before the first fill	Section 28	
	System installed by a person designated under the Regulations	Subsection 33(1)	
	Oil-water separator meets the requirements of the Regulations, as applicable	CCME Code Sentences 3.10.2, 3.10.3 and 8.7.2	
	The cathodic protection system, if applicable, is tested within one year after installation, and maintenance checks done once a year after that	CCME Code Section 8.6	N/A
	2.1 – REQUIREMENTS FOR NEW SHOP-FABRICATED ABOVEGROUND STORAGE TANKS		
	Spill containment device	Subsection 14(2) (See Regulations for exceptions)	N/A
	Secondary containment	CCME Code Part 3	
	Horizontal tanks are supported above grade	CCME Code Sentence 3.4.2	
	SECTION 2.2 – REQUIREMENTS FOR NEW FIELD-ERECTED ABOVEGROUND STORAGE TANKS		
	Secondary containment	CCME Code Part 3	N/A
	SECTION 2.3 – REQUIREMENTS FOR NEW UNDERGROUND STORAGE TANKS		
	Location and maintenance allows the removal of the system when it is permanently withdrawn	CCME Code Sentence 4.2.7	N/A
	Double-walled tanks with monitorable interstitial space	CCME Code Sentence 4.2.4	Tank Tip 2 New Storage Tank System Installations
	Spill containment device on the fill pipe		
	Liquid and vapour-tight connections		
	Overfill protection device		
	Corrosion protection, as applicable		
	Steel tanks are equipped with a corrosion-resistant coating and cathodic protection	Subsection 14(4)	

✓	REQUIREMENTS	REGULATIONS	MORE INFORMATION
	Additional requirements for new underground storage tanks that store used oil:	CCME Code Sentence 4.2.4	N/A
	A 50 mm suction pipe for product removal that can be taken off to clear a blockage		
	Product-removal or transfer connections located inside a spill containment device		
	An overfill device if tank is filled by pump or remote manual fill		
	If fill port is outside, it is equipped with a spill containment device with a capacity of at least 25 litres, a rain cover and a screen to prevent objects from entering the tank		
	In-take vent with an open area of at least twice the open area of the suction pipe to avoid vacuum collapse		
	SECTION 2.4 – REQUIREMENTS FOR NEW PIPING		
	Approved materials:	Subsection 14(5)	N/A
	Copper		
	ASTM A 53, "Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless"		
	CAN/CSA Z245.1, "Steel Line Pipe"		
	CAN/ULC-S633, "Flexible Underground Hose Connectors"		
	ORD-C536, "Flexible Metallic Hose"		
	ULC/ORD – C971, Non-metallic Underground Piping for Flammable and Combustible Liquids OR CAN/ULC-S660, Standard for Nonmetallic Underground Piping for Flammable and Combustible Liquids whichever was the most recent at the time the storage tank system was manufactured		
	Compliant with the National Fire Code of Canada	CCME Code Sentence 5.2.2	
	Secondary containment systems for underground piping, as applicable, are designed and installed so that leaks either accumulate in a containment sump that can be easily inspected, or are detected by a monitoring system	CCME Code Sentence 5.4.5(1)	
	Underground piping up to and including 75 mm in diameter has secondary containment	CCME Code Sentence 5.4.1	
	Underground piping larger than 75 mm in diameter has secondary containment or cathodic protection	CCME Code Sentence 5.4.2	
	Thermal relief valve	CCME Code Sentence 5.2.7	
	Piping located below the maximum product level is equipped with a means to prevent the release of liquid from the tank by syphon flow	CCME Code Sentence 5.2.8	
	Lockable manual shut-off valve (unless attached to heating appliance)		
	For a tank with a capacity of 5000 L or more, a liquid and vapour-tight connection at the fill point	CCME Code Sentence 5.3.1	
	Mechanical joints are not buried or concealed	Subsection 14(5)	

CHECKLIST 3: REQUIREMENTS FOR EXISTING SYSTEMS

✓	REQUIREMENTS	REGULATIONS	MORE INFORMATION
SECTION 3.1 – REQUIREMENTS FOR EXISTING HORIZONTAL ABOVEGROUND STORAGE TANKS			
	Monthly visual inspection or ongoing leak monitoring or detection program in place for horizontal aboveground tanks without secondary containment	Sections 19–21	Tank Tip 4 Leak Detection and Monitoring
	A visual inspection of the walls of the tanks was completed by June 12, 2010		
	Horizontal tanks are supported above grade	Section 7	Tank Tip 9 Withdrawal and Removal of Storage Tank Systems
	Tanks in contact with the ground, as well as partially buried tanks, are removed		
	Aboveground tanks installed below grade or encased within filled secondary containment are removed	Section 5	
SECTION 3.2 – REQUIREMENTS FOR EXISTING VERTICAL ABOVEGROUND STORAGE TANKS			
	Ongoing leak monitoring or leak detection program in place for vertical aboveground tanks without secondary containment	Section 22	Tank Tip 4 Leak Detection and Monitoring
	A visual inspection of the tanks or the floor of the tanks was completed by June 12, 2010		
SECTION 3.3 – REQUIREMENTS FOR EXISTING UNDERGROUND STORAGE TANKS			
	Ongoing leak monitoring or detection program in place for single-walled underground tanks	Section 16	Tank Tip 4 Leak Detection and Monitoring
	A precision leak test of the tank was completed by June 12, 2010		
	Underground tanks installed aboveground or in unfilled secondary containment (e.g. an empty concrete vault) are removed	Section 6	Tank Tip 9 Withdrawal and Removal of Storage Tank Systems
	Single-walled underground tanks without cathodic protection and/or leak detection are removed	Section 9 (See paragraphs 9(1)(a) and 9(1)(b) for exceptions)	
	Leaking single-walled underground tanks immediately and permanently withdrawn from service and removed within two years of the owner or operator becoming aware of the leak	Subsection 3(2)	Tank Tip 4 Leak Detection and Monitoring
SECTION 3.4 – REQUIREMENTS FOR PARTIALLY BURIED TANKS			
	Partially buried tanks are removed	Section 7	Tank Tip 9 Withdrawal and Removal of Storage Tank Systems
SECTION 3.5 –REQUIREMENTS FOR EXISTING PIPING			
	Ongoing leak monitoring or detection program of aboveground piping without secondary containment	Sections 23–24	Tank Tip 4 Leak Detection and Monitoring
	A visual inspection was completed by June 12, 2010		
	Single-walled underground piping without cathodic protection and/or leak detection are removed	Subsection 10(1) (See subsection 10(2) for exceptions)	Tank Tip 9 Withdrawal and Removal of Storage Tank Systems

✓	REQUIREMENTS	REGULATIONS	MORE INFORMATION
	Ongoing leak monitoring or detection program for single-walled underground piping	Section 17	Tank Tip 4 Leak Detection and Monitoring
	A precision leak test according to the Regulations was completed by June 12, 2010		
	Leaking single-walled underground piping is permanently withdrawn from service and removed within two years of the owner/operator becoming aware of the leak	Subsection 3(3)	
	It may be replaced with approved piping		
SECTION 3.6 – REQUIREMENTS FOR EXISTING SUMPS			
	Ongoing leak monitoring program of sumps according to the Regulations	Section 25	Tank Tip 4 Leak Detection and Monitoring
	A visual inspection was completed by June 12, 2010		

For more information, visit our website

www.canada.ca/petroleum-products-storage-tanks

If the information you need is not available on our website, contact your regional office or the Storage Tank Program:

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