
Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations

(proposed under CEPA 1999)

Presentation to:

First Nations Environmental
Learning Regime
Edmonton (Alberta)
February 13, 2008

René Drolet
Environment Canada



Timelines for new Regulations

- Canada Gazette Part I April 7, 2007
- Canada Gazette Part II April 2008 (expected)
- Coming into force April 2008 (expected)
- Compliance Promotion 2008-2009



What is the purpose of the proposed new Regulations?

- Reduce leaks into environment
- Reduce impact of spill events

SOIL AND GROUNDWATER PROTECTION

- Health and Welfare of Communities, their Environment and Resources
- Legislate best practices for management of petroleum storage facilities – e.g. technical design, leak detection, spill reporting, emergency response



OLD vs. NEW Tank Regulations

- Tank Size threshold:
 - *New regulations will capture many more tanks*
- Regulated Community:
 - *Old – only tanks on Federal and Aboriginal Lands*
 - *New – addition of Federal Works and Undertakings – airports, Port Authorities and Railways*
- Registration of Tanks:
 - *Directly with EC rather than with INAC*
- And much more



Much more..... in the new Storage Tank Regulations

- ***The new Regulations will legislate current best practice measures and procedures for tank systems***
 - *CCME Code of Practice - Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products - 2003*
 - » *New Storage Tank Systems or replaced parts will be subject to specific sections of the CCME Code*

- ***New Regulation does NOT include upgrading of existing tanks to CCME standards***



Who is included in the application of the proposed Regulations?

- Federal House (s.207(1) of the *Canadian Environmental Protection Act, 1999*)
 - *Federal departments, boards and agencies*
 - *Crown corporations*
 - *Airports, railways and ports*
 - *Federal lands and Aboriginal lands*

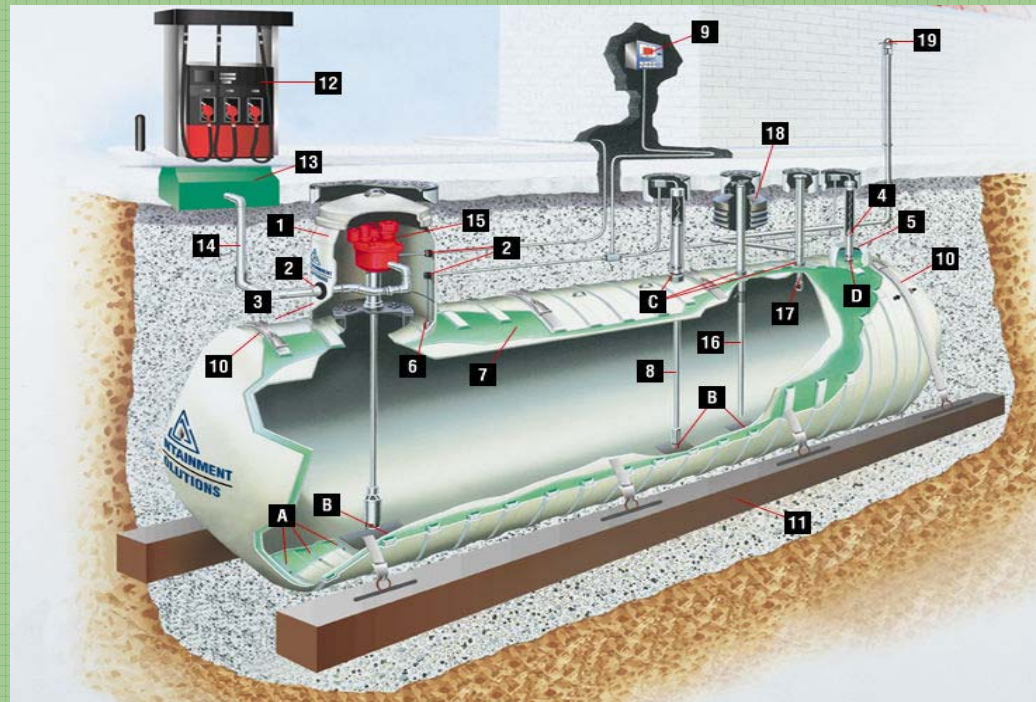


What is meant by Storage Tanks and Storage Tank Systems?

- Storage Tank
 - *closed container*
 - *capacity >230L*
 - *designed to be installed in a fixed location*
- Storage Tank System
 - *one or more commonly connected tanks*
 - *pipng, product transfer apparatus, overfill, spill protection, sumps & dispensing equipment*



A storage tank system is much more than what you see....



What are petroleum and allied petroleum products?

- Petroleum Product
 - *single product or mixture \geq 70% volume hydrocarbon, refined from crude oil, or*
 - *used oil*
 - *not propane, paint or solvent*

- Allied Petroleum Products – List of 18 specific items
 - *Examples – Ethanol, E-85, Biodiesel, Linseed Oil, Printing Ink, Thinners*



Which systems are covered by the proposed regulations?

- All underground storage tank systems
- For aboveground storage tank systems:
 - *outdoor heating appliance or emergency generator tanks >2500L*
 - *all other outdoor tanks*

Which systems are not included?

- Indoor systems
- Systems 2500 L or less connected to heating appliance or emergency generator (most home heating fuel systems)



Summary of the major components of the proposed Regulations

- Withdraw leaking systems
- Remove 'high risk' systems
- Mandatory compliance with technical requirements for 'new' systems
- Leak detection for components without secondary containment
- Identification with EC
- Containment of spills at product transfer areas
- Transfer of product to ID'd systems only
- Emergency plans
- Licensed installers
- Operation and maintenance requirements
- Spill reporting
- Record keeping



What is the identification process?

- Identify storage tank system to EC
 - *Before first fill for new tank systems*
 - *Within 2 years for existing tank systems*
 - *If tank systems not all identified during Year 1, then the owner must submit a progress report to EC*
- Receive identification number from EC
- Display identification number on or near tank system



Introduction to FIRSTS



The screenshot shows the login interface for the Federal Identification Registry for Storage Tank Systems (FIRSTS). On the left is a navigation menu with links for Home, Help, and Contact Us. The main content area contains a login form with fields for Username and Password, a Recover Password link, and a Submit button. A message above the form explains that users can retrieve a forgotten password using the 'Lost Password' tool.

FEDERAL IDENTIFICATION REGISTRY FOR STORAGE TANK SYSTEMS

Please login below. If you've forgotten or lost your password, you can retrieve it using the 'Lost Password' tool.

Login

Username:

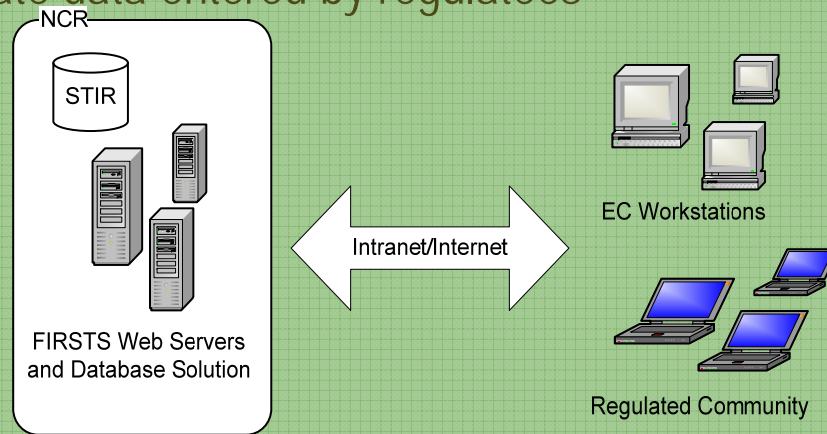
Password:

[Recover Password](#)



Web-based system - Operational Overview

- The system will be housed on EC's public Green Lane
- The application will be protected with a username and password security system
- Each tank system owner will have a uniquely assigned username and password to access the application
- The application will be available in both English and French languages. But we will not translate data entered by regulatees



What are the identification requirements?

INFORMATION REQUIRED TO IDENTIFY A STORAGE TANK SYSTEM

1. Name of owner of the storage tank system
2. Mailing address of owner
3. Name of operator of the storage tank system, if different from owner
4. Mailing address of operator
5. Type of petroleum product or allied petroleum product stored in each tank of the storage tank system
6. Location of the storage tank system (street address, Global Positioning System (GPS) coordinates or latitude and longitude)
7. Civic address of the location where the storage tank system records are stored
8. Months during which the storage tank system is in service
9. Nominal capacity of each tank of the storage tank system
10. Year of installation of each tank of the storage tank system
11. Tank's ULC or API Standard Number
12. Type of each tank of the storage tank system
13. Material used in the construction of each tank
14. Type of corrosion protection of each tank
15. Type of secondary containment of each tank
16. Type of overfill protection of each tank
17. Type of the piping of the storage tank system
18. Material used in the construction of the piping
19. Diameter of the piping
20. Type of corrosion protection of the piping
21. Type of secondary containment of the piping
22. Type of spill containment devices
23. Description of product transfer area(s)
24. Type of leak detection
25. Type of pump for transfer to the oil-water separator

45



Paper forms will be available

Notification of Storage Tank System (STS) on Federal Lands or Aboriginal Lands Environment Canada (EC) Storage Tank System Identification Form Rev. (10/06) (One form per storage tank system. See reverse for mailing instructions)		ENVIRONMENT CANADA USE ONLY ID Number _____ Date Received _____ Date Entered _____ Entered By _____ Comments _____	
PART I: PURPOSE OF NOTIFICATION <input checked="" type="checkbox"/> Check all that apply: <input type="checkbox"/> New (not previously registered) System <input type="checkbox"/> Temporary closure <input type="checkbox"/> Change in tank contents <input type="checkbox"/> New tank(s) at previously registered System <input type="checkbox"/> Tank removal or closure <input type="checkbox"/> New owner <input type="checkbox"/> Change in tanks (e.g., upgrade) <input type="checkbox"/> Piping removal or closure <input type="checkbox"/> Change in owner address <input type="checkbox"/> Change in piping (e.g., upgrade) <input type="checkbox"/> Other (specify): _____			
PART II: OWNERSHIP OF TANK SYSTEM A. Owner Name _____ B. Owner Address (include City, Province/Territory, Postal Code) _____ C. Name of Contact Person _____ D. Title of Contact Person _____ E. Phone Number () _____ Fax Number () _____ F. E-mail Address _____ G. Name of Previous Owner (if applicable) _____		PART III: LOCATION OF TANK SYSTEM H. Facility Name _____ I. Street Address of location of system (no address provide GPS coordinates or latitude & longitude) _____ J. Street Address of location of tank system records _____ K. Name of Operator (if different from owner) _____ L. Title of Operator (if different from owner) _____ M. Operator Address (if different from owner) _____ N. Phone Number (if different from owner) () _____ Fax Number (if different from owner) () _____ O. E-mail Address (if different from owner) _____	
PART IV: TYPE OF OWNER <input type="checkbox"/> Federal department, Board or Agency <input type="checkbox"/> Private on federal lands <input type="checkbox"/> Port <input type="checkbox"/> Aboriginal <input type="checkbox"/> Private on aboriginal lands <input type="checkbox"/> Airport <input type="checkbox"/> Federal Crown Corporation <input type="checkbox"/> Railway <input type="checkbox"/> Public (e.g. school, community, etc.)		PART V: TYPE OF FACILITY <input type="checkbox"/> Gas station or fuel depot (manned) <input type="checkbox"/> Commercial <input type="checkbox"/> Private <input type="checkbox"/> Fuel depot (unmanned) <input type="checkbox"/> Industrial <input type="checkbox"/> Farm <input type="checkbox"/> Other _____	
PART VI: FEDERAL RESPONSIBILITY Is this tank system located on: Federal lands? <input type="checkbox"/> Yes <input type="checkbox"/> No Aboriginal lands? <input type="checkbox"/> Yes <input type="checkbox"/> No Private Lands? <input type="checkbox"/> Yes <input type="checkbox"/> No			
PART VII: OWNER CERTIFICATION I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I understand that the owner of the storage tank system(s) hereby registered is responsible for compliance with the requirements of the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, among other requirements. I warrant and represent that I am the owner or that I have the authority to sign this certification on behalf of the owner. I understand that this notification form is sufficient evidence to establish ownership of tanks. Name and Title (Type or Print) _____ Signature _____ Date ____/____/____			

PART VIII: INSTALLER CERTIFICATION I certify that the installation of this tank was performed in accordance with all federal installation requirements. I warrant and represent that I am the installer or that I have the authority to sign this certification on behalf of the installer. Name and Title (Type or Print) _____ Signature _____ Date ____/____/____ Company Name _____ Address _____ Telephone Number () _____									
PART IX: TANK DESCRIPTION FOR NEW IDENTIFICATIONS, INSTALLATIONS AND AMENDMENTS									
Owner Tank Identification Number									
EC Tank Identification Number									
Tank Status	<input type="checkbox"/> New Tank <input type="checkbox"/> Amendment	<input type="checkbox"/> New Tank <input type="checkbox"/> Amendment	<input type="checkbox"/> New Tank <input type="checkbox"/> Amendment	<input type="checkbox"/> New Tank <input type="checkbox"/> Amendment	<input type="checkbox"/> New Tank <input type="checkbox"/> Amendment				
Date of Installation (MM/DD/YYYY)									
Date of Amendment (MM/DD/YYYY)									
Months during which tank is in service	<input type="checkbox"/> All year <input type="checkbox"/> Seasonal Specify months: _____	<input type="checkbox"/> All year <input type="checkbox"/> Seasonal Specify months: _____	<input type="checkbox"/> All year <input type="checkbox"/> Seasonal Specify months: _____	<input type="checkbox"/> All year <input type="checkbox"/> Seasonal Specify months: _____	<input type="checkbox"/> All year <input type="checkbox"/> Seasonal Specify months: _____				
Type of Tank	<input type="checkbox"/> AST <input type="checkbox"/> UST	<input type="checkbox"/> AST <input type="checkbox"/> UST	<input type="checkbox"/> AST <input type="checkbox"/> UST	<input type="checkbox"/> AST <input type="checkbox"/> UST	<input type="checkbox"/> AST <input type="checkbox"/> UST				
Type of Piping (* all that apply)	<input type="checkbox"/> AST <input type="checkbox"/> UST	<input type="checkbox"/> AST <input type="checkbox"/> UST	<input type="checkbox"/> AST <input type="checkbox"/> UST	<input type="checkbox"/> AST <input type="checkbox"/> UST	<input type="checkbox"/> AST <input type="checkbox"/> UST				
Tank Capacity (Litres)									
Substance stored (if hazardous, include CERCLA name and/or CAS number)									
ULC or API Standard Number	Tank	Tank	Tank	Tank	Tank				
ULC-S601-00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
CAN/ULC-S602-M92	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC-S603-00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
CAN/ULC-S603-1-92	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC-S615-96	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC-S630-00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC-S635-94	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC-S643-00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC-S652-93	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC/ORD-C58-10-1992	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC/ORD-C142-10-1995	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC/ORD-C142-22-1995	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC/ORD-C142-23-1991	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ULC/ORD-C142-5-1992	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
API Std 650-96	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Other (specify) _____									
Material of Construction (* all that apply)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank
Fiberglass Reinforced Plastic (FRP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coated and Cathodically Protected (STI-P3B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Composite (Steel Clad with Fiberglass)ACT 100 @	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Polyethylene Tank Jacket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Paper forms will be available

Concrete Steel Composite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Galvanized Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PVC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Black Iron	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enviroflex/bufflex	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Polyethylene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geoflex	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thermal Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has tank/piping been repaired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Containment (? all that apply)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Double Walled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self Contained (Steel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete Encased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Synthetic Membrane Liner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excavation Liner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Earth Dike	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clay Dike	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete Dike or Vault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impermeable Liner with Double Bottom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corrosion Protection (? all that apply)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Coated and Cathodically Protected (STI-P3B)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impressed Current System (Steel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Factory Attached Sacrificial Anode (Steel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Field Attached Sacrificial Anode (Steel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Painted (Steel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asphalt or Tar Coated (Steel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plastic Coated (Steel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Epoxy or Polyurethane Coating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type of Pump	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Manual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In-Tank pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gravity Fed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Release Detection	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Manual Tank Gauging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inventory Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Automatic Tank Gauging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vapor Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interstitial Monitoring-Double Walled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interstitial Monitoring-Secondary Containment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automatic Line Leak Detectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Statistical Inventory Reconciliation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Containment & ULC/ORD-C-58 19-1992	Tank	Tank	Tank	Tank	Tank					
ULC/ORD-C-142.19-1994	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Overfill Prevention	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Spill Containment/Bucket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overfill Alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overfill Ball Float Valve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description of Petroleum Product Transfer Area(s)										
Is System in Service All Year?	<input type="checkbox"/> Yes <input type="checkbox"/> No (Please identify the month(s) during which the system is in service)									
PART X: TANK CLOSURE, REMOVAL OR CHANGE IN SERVICE										
Owner Tank Identification Number										
EC Tank Identification Number										
Tank and Piping Status	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
Removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closure in Place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filled with Inert Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe Inert Material										
Temporary Closure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change in Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Date Last Used (MM/DD/YYYY)										
Date Closed (MM/DD/YYYY)										
Closure Assessment Completed	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Evidence of a Leak Detected	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No



What are the technical requirements for existing storage tank systems?

- Upgrade product transfer areas to contain spills within 4 years
 - *transfer area – connection point between delivery and storage tank systems > 2500L*
- Temporarily remove leaking systems from service
- Permanently remove “high-risk” systems within 4 years
- Leak detection on tanks and components without secondary containment within 2 years



What are the design requirements for new systems?

- Aboveground tanks in accordance with CCME Part 3
- Underground tanks in accordance with CCME Part 4
- Piping in accordance with CCME Part 5
- Tank system design stamped by a professional engineer



What are the installation requirements for new systems?

- System installation by:
 - *provincially licensed installer, where applicable*
 - *If not applicable, supervised by a professional engineer*
- As-built drawings stamped by a professional engineer



What are the leak detection requirements?

- Leak detection within 2 years
- Ongoing leak detection or monitoring on prescribed frequency
- Options according to type of equipment
 - *Aboveground vertical storage tanks*
 - *Aboveground horizontal storage tanks*
 - *Underground storage tanks*
 - *Aboveground piping*
 - *Underground piping*
 - *Sumps*



Are there any other operational requirements?

- If there is an oil water separator, then:
 - *Free oil and separated solids measurements taken monthly / after incident*
 - *Free oil level $\leq 50\text{mm}$*
 - *Separated solids layer $\leq 150\text{mm}$*
 - *No centrifugal pump transfer*
- Tank bottom water to go to treatment



What if the system is withdrawn from service?

Temporarily (leaking systems)

- Maintain cathodic protection
- Leak test if out of service more than 1 year
- Temporary withdrawal lasts less than 2 years

Permanently ("high risk" systems)

- Remove liquids and sludge
- Purge vapours to 10% lower flammability limit
- No harmful effect on environment or human health
- Notify Minister within 60 days
- Keep record



What will have to be permanently removed from service?

- **High-risk systems**
 - Leaking single-walled underground tanks and piping
 - Aboveground tanks installed underground
 - Underground tanks installed aboveground
 - Partially buried tanks
 - Single-walled underground tanks without corrosion protection and leak detection
 - Single-walled underground piping without corrosion protection and leak detection
- Permanent withdrawal is required within 4 years of coming into force



Are there spill reporting requirements?

- Verbal notification as soon as possible, with written follow up for spills $\geq 100L$
 - Name of operator and owner
 - Date
 - Identification number of system
 - Type and quantity of product stored
 - Circumstance, mitigating measures taken and measures to prevent future incidents
 - Will use existing spill reporting lines (In Alberta: Alberta Environment)



What about emergency plans?

- Prepare emergency plans
 - *Within 2 years of coming into force for existing tank systems*
 - *Before first fill for new tank systems*
- Description of product stored
- Possible risk to environment or human health
- Prevention, preparedness, response, recovery
- Identify and train individuals
- List response equipment
- Notification to public
- May use existing plan

WILL BE BASIC, but will be required
to be kept on site



What about record keeping?

- Design and installation records for life
- Operation and maintenance records for 5 years
 - *Tank physical inspections*
 - *Leak detection tests*
 - *Disposal of tank bottom water*
 - *etc....*



Are there requirements for product suppliers?

- Prohibited to deliver to tanks without identification number displayed
- Must record identification number
- Must immediately notify operator of spill or leak



Linkages to other standards

- National Fire Code of Canada
 - *Tank Regulations do not contradict NFCC and do not reference NFCC*
- API, ULC, CAN/CSA tank and installation codes –
 - *Design and installation standards for storage tank systems*
- Provincial Regs and Installation Codes



What is Compliance Promotion?



- *Identification of potential regulatees and relevant organizations*
- *Provision of regulatory information to regulatees and other stakeholders*
- *Information sessions, mailouts, phone calls, answering questions (traditional compliance promotion)*
- *Participation in events related to Regs, support to other departments....creative projects ??*



Will EC deliver compliance promotion?

EC expects to deliver various types of compliance promotion sessions

- 1 hour 'overview' sessions for managers
- 3 hour 'detailed' sessions for technicians
- 1 day 'comprehensive' sessions for technicians
- EC would appreciate knowledge of appropriate and suitable events and workshops where participation would be an opportunity to provide information on the Regulations
- EC will consider all requests for compliance promotion - but time/ \$\$ and availability will likely influence.
 - *Above is 'traditional single regulation compliance promotion*
 - *May not be most effective in changing behaviour... creative educational approaches being considered and all ideas welcomed.*



What materials is EC considering developing?

- Fact sheets
- Compliance promotion bulletins
- Comprehensive presentations that include modules on each section of the regulations.
- Participants binders for compliance promotion training workshops
- Guidance documents (i.e. product transfer areas)
- FAQ's
- Demonstration materials (model tanks, piping, fittings, valves, etc.)



- Please think about your current involvement with tanks...

In an ideal world (but with some reality....)

- What support would you ideally like from EC staff ? (regional working groups, all referrals.....)
- What materials/support could EC provide ?
- Within your tank work and programs, any existing or future programs, activities, workshops, site visits, education/outreach that EC should consider being involved in?
- What could be EC's biggest error/ challenge in compliance promotion delivery, or administration of the Regs ?



Useful websites

- EC's Storage Tank website for Petroleum and Allied Petroleum Products - <http://www.ec.gc.ca/st-rs/>
- Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products - <http://www.ec.gc.ca/ceparegistry/documents/regs/CCME/toc.cfm>
- Compliance and Enforcement Policy for the *Canadian Environmental Protection Act, 1999* - <http://www.ec.gc.ca/CEPARegistry/documents/policies/candepolicy/toc.cfm>
- National Fire Code - http://www.nationalcodes.ca/nfc/index_e.shtml



Need more information?

Gillian Brown
Environment Canada
Prairie & Northern Region
(306) 780-5399
Gillian.Brown@ec.gc.ca

René Drolet
Environment Canada
National Headquarters
(819) 994-0738
Rene.drolet@ec.gc.ca

Cristina Ruiu
Environment Canada
Prairie & Northern Region
(306) 780-7365
Cristina.Ruiu@ec.gc.ca



THANK YOU!

