

# **2023 Storage Tank Systems Management and Compliance Course Outline**

The following main topics will be covered during the storage tank management course:

## **Tank Fabrication Standards**

Discussion of Steel Tank Institute, Underwriters Laboratories Canada, and American Petroleum Institute standards and specifications for storage tanks.

## **Corrosion Basics**

Taking the mystery out of the natural phenomenon of corrosion. Identification of common areas of corrosion in aboveground tanks.

## **Inspection Techniques**

Demonstrating how various methods are used to identify the condition of aboveground and underground storage tanks. Discussion of criteria for determination of acceptable tanks and those which require repair.

## **Canadian Federal and Provincial Regulatory Requirements**

Establishing what Canadian federal and provincial regulators expect you to provide to meet inspection, commissioning, record keeping and reporting mandates.

## **National Building and Fire Codes**

Discussion of various national codes including Fire Code and Building Codes will occur. Emphasis on how tank systems must be installed to meet the fire and building codes.

## **Valves and Piping**

Pressure or suction systems. Venting installation requirements. Vapour recovery systems. Appropriate materials for fuelling. Use of valves per function, fire safety, isolation, etc.

## **Leak and Product Monitoring**

Leak and level control equipment, correct installation, "dip sticking" storage tanks.

## **Electrical Code**

Requirements of the Canadian Electric Code relating to tank installations. A brief overview of the Canadian Electrical Code will also be discussed.

## **Hands on Demonstration**

Hands on demonstrations in the practicum of each type of equipment for better understanding of how each is designed and why it must be properly installed.

## **Course reference material:**

It is required that you have a copy of the following standards and bring them with you to the course. Course fee does not include the costs of these standards and a reference copy of each will be available for participants for viewing.

- SOR 2008-197 Regulations (mandatory and available for free)
- CCME PN 1326 (mandatory and available for free)
- CSA B139-2015 (optional and must be purchased)
- CSA C282-2019 (optional and must be purchased)
- National Fire Code 2020 (recommended and available for free electronically)
- Provincial Codes (recommended) as they affect your STS

## **Included in class materials:**

API 651 & STI RP-111  
CEC C22.2 applicable articles  
NBC 2020 applicable sections  
ULC S676

## Course modules

- Module 1 Introduction and content synopsis
- Module 2 Federal Regulatory and National Fire Code review
- Module 3 Review of Codes and Standards
- Module 4 Technical review of storage tank systems
- Module 5 Installation, registration and removal from service
- Module 6 Inspections, corrosion, precision leak testing, detection
- Module 7 Emergency Response Planning and spill reporting
- Module 8 Record keeping requirements
- Module 9 Product Transfer Areas Risk Assessment and SOP
- Wrap up and closing remarks

# Storage Tank Systems Management and Compliance Program Workshop

September 19 to 21, 2023  
Homewood Suites, 3605 Paul Anka  
Drive, Ottawa, Ontario, K1V 2S6

Facilitator and  
Instructor:

Pierre Legault IRS Tank  
Solutions

## Agenda - Day 1

<u>Time</u>	<u>Topic</u>	<u>Presenter</u>
08:30	Welcome remark	IRS management
08:40	Agenda review and roll-call	Pierre Legault
08:55	Module 1: Introduction and content synopsis	Pierre Legault
09:30	Break	Pierre Legault
09:45	Break Module 2: Federal regulatory and NFC review	All
12:00	Lunch (not provided)	Pierre Legault
13:00	Module 3: Review of codes and standards (CCME, CSA & ULC)	Pierre Legault
15:00	Break	Pierre Legault
15:15	Module 3: Review of codes and standards (continued)	All
16:40	Wrap up	All

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## Agenda - Day 2

<u>Time</u>	<u>Topic</u>	<u>Presenter</u>
08:30	Welcome, agenda review and roll-call	IRS management
08:40	Module 4: Technical review of storage tank systems	Pierre Legault
09:45	Break	Pierre Legault
10:00	Module 5: New installations, registration and removals from service (Federal)	All
12:15	Lunch (not provided)	All
13:00	Module 6: Inspections, corrosion protection, precision leak testing, leak detection	Pierre Legault
15:00	Break	All
15:15	Module 7: Environmental Emergency Response Planning and spill reporting	Pierre Legault
16:30	Wrap up	All

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## Agenda - Day 3

<u>Time</u>	<u>Topic</u>	<u>Presenter</u>
08:30	Review of agenda	Pierre Legault
08:35	Module 8: Record keeping requirements	All
09:45	Break	Pierre Legault
10:00	Module 9: Product Transfer Areas Risk Assessment and SOP	All
11:15	Action Items review and roundtable discussion on current challenges	All
12:00	Lunch (not provided)	Pierre Legault
13:00	Practicum with real-life storage tank system inspections	Pierre Legault
15:00	Wrap up and closing remarks	Pierre Legault

Item	Action Item	Assignee	Target Due Date	Comments
1.				