

GLOBAL EXPERTS INSTITUTE FOR TRAINING.
ISO 9001-2008 TRAINING PROVISION CERTIFIED

Storage Tank, Construction, Maintenance & Repair

Schedule Dates:

Start Date	End Date	Place
28 Jan 2024	1 Feb 2024	Dubai – The H hotel

Program Introduction:

This Storage Tank, Construction & Maintenance training course will highlight the most recent revisions and upcoming changes in the aforementioned standards and will in addition include essential storage tank technology not covered by these standards.

Storage Tank, Construction & Maintenance is a course designed to offer the participants an insight of how tank farm storage tanks are designed, constructed, operated, inspected and maintained.

Storage tanks are containers that hold flammable liquids, or compressed flammable gases for short, medium or long-term storage. Crude oil or crude product storage tank design and construction, as used in industries such as petroleum production, refinery tank farms, intermediate product storage including LPG, and product transfer operations, petrochemicals, as well as other industries consuming or producing flammable liquids, will be covered.

Program Objective:

- ✓ Know the Various Materials of Construction Associated with Storage Tank
- ✓ Grasp the Relevant Types of Storage Tank and their Associated Terminologies
- ✓ Assess Storage Tank Performance
- ✓ Appreciate the Governing Equations Associated with Tank Design
- ✓ Learn about Tank Safety Issues
- ✓ Learn about Tank Standards and Codes
- ✓ Appreciate Failure Mechanisms including Corrosion
- ✓ Learn about methods of Tank Protection, including Linings and Cathodic Protection
- ✓ Have an Understanding of Different Methods of Inspection

Who should attend?

This course is designed for design engineers, process selection engineers, procurement personnel, project civil engineers, quality personnel, operation & maintenance engineers, and inspection engineers.

Program Outlines

Day One

Storage Tanks Introduction

- Review of Energy Production and Consumption
- Basic Properties and Characteristics of Petroleum and Products in Storage
- Storage of Flammable Liquids - safety & risk
- Fire Fighting & Fire Protection
- Handling Oils Spills and other Emergencies
- Introduction and Uses of Storage Tanks

Day Two

Tank Construction Standards and Codes

- API Standard 2610, Construction, Operation, Maintenance and Inspection of Terminal & Tank Facilities
- Types of Tanks, Bolted, Welded, etc.
- Tank Components, Fittings and Equipment
- Tank Roofs, Fixed, Floating, Roof Supports etc.
- Tank Rim and Seals
- Tank Vents & Vacuum Brakers
- Tank Drainage and Water Separation
- Design, Sample Problem of a Heated Tank

Day Three

Tank Selection and Inspection

- Tank Inspection Criteria
- Tank Capacity & Volume Calculations
- Cylindrical and Spherical Tanks
- Tank Piping Systems, Mixers and BS&W Control
- Double Wall Storage Tank
- Foundations Construction Basics
- Syndicate Exercise – Tank Layout and Spacing

Day Four

Tank Construction Engineering Considerations

- Materials Selection
- Welding and Welding Inspection
- Design Loading and Selected Tank Equations
- Tank Coatings
- Tank Manufacturing and Assembly
- Tank Damage
- Corrosion Protection, Cathodic Protection, etc.

Day Five

Inspection and Maintenance

- API Standard 653 - Tank Inspection, Repair, Alteration and Reconstruction
- Nondestructive Inspections
- Tank Failure Case Studies
- Tank Inventory System (TIS)
- Level Measurement Sensors, Techniques and Control
- Course Review and Roundup

Training Methodology:

- Slide presentations
- Interactive discussion
- Simulations and Gamification
- Online Video material

Cost Quotation in Kuwaiti Dinars

The total cost includes:

- Instructor(s) expenses
- Training materials
- Certification

Total Cost: 1250 KD per Participant
(One Thousand Two Hundred Fifty Kuwaiti Dinar)