XCELERATE TRAINING INSTITUTE

your learning & development partner

MECHANICAL ENGINEERING

Tank Farm and Storage Tank Design, Inspection Procedure, Operations, Repair and Maintenance Training Course

DURATION	LANGUAGE	FORMAT
5 days	English	Classroom / Online

Upcoming dates

Dates	Venue	Format	Fee
12 – 16 Apr 2027	Live online	Online (live)	€1,200
18 – 22 Oct 2027	Live online	Online (live)	€1,200
15 – 19 Nov 2027	Casablanca	Classroom	€4,800

Register or ask a question

Online: x8ti.com/course/tank-farm-and-storage-tank-design-inspection-procedu…

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Tank Farm and Storage Tank Design, Inspection Procedure, Operations, Repair and Maintenance Training Course

Introduction

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What is a tank farm? In simple terms, it is a storage of liquids and gases. A tank farm also includes all the equipment used during the storage of liquids and gases. Storage tanks are containers that hold liquids or compressed gases and can be used in reservoirs or manufactured plants.

Storage tanks are available in various shapes and sizes, depending on the nature of liquids or gases they hold. Some storage tanks require floating roofs in addition to the fixed roofs. The floating roofs rise and fall with the level of liquid inside the tank and are considered to be a means to safety and pollution protection.

This Xcelerate Training Institute course will empower you with a detailed understanding and knowledge of tank farms and storage tanks. Through this course, you will thoroughly understand all aspects of liquid and gas storage, with specific expertise to ensure optimal temperature and pressure control as well as extreme safety. This course will provide all that is required to assume higher roles and responsibilities across any industry.

Learning Objectives

- adequate knowledge and understanding of tank farms and storage tanks
- the required understanding and skill to manage end-to-end operations at tank farms
- the knowledge and experience to determine the right shapes, sizes and mechanisms of storage tanks depending on the liquid or gas to be stored
- the necessary experience and confidence to ensure regular inspections and maintenance of storage tanks to save organizational costs and provide increased safety
- the awareness and capabilities to apply modern techniques in tank farms to enhance operational efficiency, thereby leading to organizational growth and development
- the confidence and knowledge to mentor other professionals on best practices related to handling liquids and gases at various temperatures and pressures in storage tanks
- the awareness and strategic skills to plan storage activities and other related functions, in turn predicting risks and making provisions to address these
- the overall skill set and capabilities to assume higher roles and responsibilities in managing tank farms in any organization, thereby increasing the scope for growth and progression

Training Methodology

Training at Xcelerate Training Institute adopts a theoretical-cum-practical approach. The theoretical aspect of the training is delivered through lectures by a highly experienced professional from the relevant domain, using audio-visual presentations. The practical aspect of the training is through group activities, discussions, projects, etc. Role-plays also help trainees interact with the trainer and among each other.

The trainer also discusses relevant case studies with the rest of the training group.

Benefits for Your Organization

- Experienced, trained professionals to ensure seamless end-to-end operations at tank farms
- Regular inspection and maintenance of storage tanks to ensure longevity and extreme safety
- Increased safety and organizational credibility because of better maintenance activities
- Accurate choice of tanks designs and mechanisms as per the desired liquid or gas to be stored
- Better risk prediction, management and elimination
- Reduced organizational costs because of increased tank life and lesser risks, thereby leading to organizational growth and development
- Regular training of existing and new employees on best practices of working at tank farms
- Application of advanced techniques and concepts related to storage at tank farms
- Greater investments because of better storage techniques, higher maintenance schedules
- Maintenance of employee health and safety as per required standards

Benefits for You

- Detailed knowledge and understanding of tank farms and storage tanks
- Enhanced skill and confidence to seamlessly manage end-to-end operations at tank farms
- Increased awareness of modern techniques that can be used at tank farms
- Increased understanding and knowledge of required standards of safety at tank farms
- Greater confidence and knowledge to train other professionals on best practices during operations at tank farms
- Enhanced strategic and analytical skills to check and review storage conditions and future demand thoroughly to ensure that all possible challenges are addressed
- Greater ability to contribute to reducing organizational costs and risks to employee safety
- Increased capabilities and experience to make the correct choices of tanks and tank shapes and sizes based on the storage requirements of the organization
- Better perspective and attention to detail to carry out regular inspections and maintenance for storage tanks
- Enhanced skill set and capabilities to undertake higher roles and responsibilities in tank farm operations across any organization, thus providing greater avenues for career growth

Target Audience

- Senior management of an organization responsible for key decision making regarding important functions, expenses, etc.
- Vendors and suppliers involved in the supply of storage tanks and storage tank-related equipment
- Operators and engineers performing various functions during storage of liquid and gases and maintenance of storage tanks
- Managers responsible for overseeing various tank farm operations
- Auditors and compliance officials responsible for ensuring adherence to required standards
- Transfer and cargo supervisors responsible for ensuring safe transport of liquid or gases
- Any other professional interested in knowing more about tank farms and storage tanks

Course Outline

Design Considerations for Tank Farm Layout

- General considerations
- Local codes and regulations
- Client specification
- Topography
- Adjacent process units
- Neighboring commercial and residential property
- Maintenance and operation
- Detail design
- Identification of storage as per fluid stored
- Safety considerations/statutory requirements
- General/plot plan arrangement
- General piping layout
- Construction material
- Other miscellaneous considerations

Tank Terminal Operations

- Transfer systems
- Centrifugal pumps
- Piping systems
- Emergency response
- Loading and discharge systems
- Quality management

General Construction Issues/Critical Points

- Transportation
- Qualified Personnel
- Security
- Electrical power
- Water
- Ventilation of tank fir degassing and occupancy
- Fuel inventory
- De-humidification
- Sludge disposal
- Compressed air
- Lay down areas
- Communications

Types of Storage Tanks as Per Purpose

- Industrial fuel storage tanks

- Industrial chemical storage tanks
- Industrial oil storage tanks
- Industrial hot water storage tanks
- Industrial water and liquid storage tanks
- Industrial plastic storage tanks
- Industrial gas storage tanks

Fundamental Conditions Checked During Tank Inspections

- Overall condition
- Corrosion levels
- Damages/cracks/deformations
- Pitting corrosion and blister formation
- Tank gauging systems
- Safety devices
- Mud/sludge build-up
- Cargo equipment

Water/Contaminant Removal from Tanks

- Multi point water pumping
- Fuel filtration and polishing
- Non-entry tank cleaning
- Physical entry tank cleaning

Tank Cleaning Hazards

- Fires or explosions
- Toxic gas and vapor releases
- Oxygen shortages/other physical dangers
- Exposure to radiation
- Environmental contamination

Tank Cleaning Safety Tips

- Coordination
- Trained professionals
- Personal protective equipment
- Safety equipment
- Safety procedures

Critical Tank Components Considered for Inspection and Maintenance

- Tank gauges and monitoring systems
- High-technology sensors
- Electronic or mechanical leak detection equipment
- Corrosion protection equipment
- Pressurized piping emergency valves

- Emergency shut-down devices
- Containment sumps
- Overall protection devices

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Registration Form

Tank Farm and Storage Tank Design, Inspection Procedure, Operations, Repair and Maintenance Training Course

Preferred dates: ..... Venue or online: .....

Duration: 5 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Email: .....

Payment

☐ Please invoice me ☐ Please invoice my company

Signature: ..... Date: .....

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Register online
Open the course page