

STORAGE TANK DESIGN



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TRAINING TITLE

STORAGE TANK DESIGN

VENUE

Dubai, UAE

DURATION

5 Days

DATES

07 - 11 August 2022

PRICE

US\$4,000 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch buffet.

TRAINING INTRODUCTION

Storage tanks plays important role in petroleum industry. Managing the safety and operation of storage tanks is very important. This course is intended to guide the participant to the design, construction, inspection, repair and maintenance of storage tanks and introduces engineers to the application of various codes and standards applied to storage tanks. This course pays attention to relevant API standard as main reference to the topic in question.

TRAINING OBJECTIVES

- Provide the fundamentals design requirements for new storage tanks
- Understand the various techniques available for safe site build and achieving quality assured standard for the construction of storage tanks
- Consider maintenance strategies for the inspection, assessment repair and maintenance of storage tanks
- To Learn design code and standards for storage tanks , materials of storage construction and methods used for construction of storage tanks .

TRAINING AUDIENCE

- Inspection Engineers
- Operation Engineers and Supervisors
- Mechanical Maintenance Engineers and Supervisors

- Mechanical Design Engineers

TRAINING OUTLINE

- SHOP-FABRICATED TANKS
 1. Introduction: A History of Storage Tank Systems
 2. Classification of Storage Tanks:
 - Function that it serves
 - Structural design
 - Normal pressure
 3. Storage Tank Safety
 - Fire Fighting Guidelines
 - Preparing for Personnel Entry
 4. History of the Uniform Fire Code
 5. Quality Control on USTs and ASTs
 6. Non – destructive Testing (NDT) of Storage Tanks
 7. UST and AST Fabrication
 8. Storage Tank Specification Considerations
 9. To Bury or Not to Bury: Steel Tank Technology Decisions
- UNDERGROUND STORAGE TANKS (UST)
 1. UST Design: The Wall Thickness Question
 2. Development of UL Standards for Underground Steel Tank Safety
 3. Steel UST Technologies
 4. Underground Storage Tank Installation
 5. UST Performance
 6. Corrosion and Cathodic Protection on Underground Storage Tanks
 7. How to Specify UST System Equipment
- ABOVEGROUND STORAGE TANKS (AST)

1. AST Design
 2. Fixed roof versus floating roof
 2. Development of UL Standards for Aboveground Steel Tank Safety
 3. Secondary Containment for Non-insulated Steel Aboveground Storage Tank Systems
 4. AST Environmental Regulations
 5. Plan Review and Inspection of Aboveground Storage Tanks
 6. Aboveground Storage Tank Installation
 7. How to Specify AST System Equipment
- API STANDARDS OF STORAGE TANK

1. Historical Perspective on Standards and Codes

2. API Standard 650

- Materials
- Design
- Fabrication
- Construction
- Marking
- Design of Foundations
- External Floating Roofs
- Internal Floating Roofs

3. API Standard 653

- Introduction to Tank Failures
- Tank Repair and Alteration
- Tank Inspection
- Marking and Recordkeeping
- Tank Settlement types

- Checklists for Tank Inspection
 - Certification requirements
 - Riveted Tanks.
 - Underground Leak Detection
- Subgrade Protection

TRAINING CERTIFICATE

MAESTRO CONSULTANTS Certificate of Completion for delegates who attend and complete the training course

METHODOLOGY

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of “real life” issues in their organizations.

The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.