## Introduction

API 653: TANK INSPECTION CODE: Inspection, Repair, Alteration, & Reconstruction of Steel Aboveground Storage Tanks Used in the Petrochemical Industry (API Exam Preparation Training) Who Should Attend The course is intended for Inspection Engineers who are seeking API-653 certification. Other engineers, managers or technical staffs who are dealing with Steel Aboveground Storage Tanks used in the Petrochemical Industry will also benefit

In order to meet the needs of today is fast changing inspection industry,

(1) To train those individuals who are interested in obtaining the API 653 Tank Inspection Certification.

(2) To train those who require a working knowledge of the intricacies encountered in the working environment.



Learning Objectives

Course Objectives In order to meet the needs of today's fast changing inspection industry, Worldwide Tank Services has developed the "Tank Inspection Course with API 653 Exam Prep.".

After undertaking the training course, storage tank Inspectors will be able to understand;

- Inspectors Responsibilities,
- Personal and general pipeline safety
- Environmental, Safety and pollution control
- General above ground storage tanks alteration, repair
  Inspection Procedures



## **Target Audience**

The course is designed essentially for professionals such as: inspection personnel ,process engineers, mechanical engineers, R&D persons, corrosion engineers, plant contractors etc. The course is also useful for plant engineers as well as for operating/maintenance staff related to pipelines, tanks, pressure vessels etc.

## **Training Methodology**

The programme will be interactive and practical. There will be work in groups and pairs as well as individual exercises and everyone will get an opportunity to discuss their issues with electricity and troubleshoot electrical problems. Each day will end with time to produce an action plan for delegates' continuing development.

## **Programme Content**

□ API Recommended Practice 571, Damage Mechanisms Affecting Fixed Equipment in the Refining Industry,

**3rd Edition, March 2020** 

ATTENTION: Only the following sections / mechanisms from RP 571 are included on the exam:

**Section 2 Terms and Definitions** 

Par. 3.8 Atmospheric Corrosion

3.11 Brittle Fracture

**3.14 Caustic Corrosion** 

**3.15 Caustic Stress Corrosion Cracking (Caustic Embrittlement)** 

3.17 Chloride Stress Corrosion Cracking

**3.22 Corrosion Under insulation (CUI)** 

3.43 Mechanical Fatigue (Including Vibration-induced Fatigue)

3.45 Microbiologically Influenced Corrosion (MIC)

3.57 Soil Corrosion

3.58 Sour Water Corrosion (Acidic)

**3.62 Sulfuric Acid Corrosion** 



 API Recommended Practice 575, Inspection Practices for Atmospheric and Low-Pressure Storage Tanks,

4th Edition, July 2020

□ API Recommended Practice 576, Inspection of Pressurerelieving Devices, 4th Edition, April 2017.

(Sections 4.3.2 and 6.6 only)

 API Recommended Practice 577 – Welding Processes, Inspection, and Metallurgy, 3rd Edition, October 2020

□ API Standard 650, Welded Tanks for Oil Storage, 13th Edition, March 2020 with Errata 1 (January

2021)

API Recommended Practice 651, Cathodic Protection of Aboveground Petroleum Storage Tanks, 4th

Edition, September 2014.

 API Recommended Practice 652, Lining of Aboveground Petroleum Storage Tank Bottoms, 5th Edition, May 2020

May 2020

□ API Standard 653, Tank Inspection, Repair, Alteration, and Reconstruction, 5th Edition, November 2014,

Addendum 1 (April 2018), Addendum 2 (May 2020), Errata 1 (March 2020)

American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel Code, 2021 Edition

i. ASME Section V, Nondestructive Examination, Articles 1, 2, 6, 7 and 23 (section SE-797 only)

ii. Section IX, Qualification Standard for Welding, Brazing, and Fusing Procedures; Welders; Brazers; and

Welding, Brazing, and Fusing Operators, (Welding Only)

