

WebCorr Corrosion Consulting Services Presents

API 510 Pressure Vessel Inspection Code: In-service Inspection, Rating, Repair, and Alteration

Date: As published on website Venue: As published on website

Course Overview

API 510 Pressure Vessel Inspection Code covers the in-service inspection, repair, alteration, and rerating activities for pressure vessels and the pressure-relieving devices protecting these vessels. This inspection code applies to all hydrocarbon and chemical process vessels and process vessels in other industries. This 5-day course provides participants with a clear and thorough understanding of various aspects of in-service inspection, rating, repair, and alteration as required by the code.

This 5-day short course is available for in-house training, on-site training, online and distance learning worldwide. It can also be customized to meet the specific needs of your organization.

Who Should Attend

Designers, engineers, inspection and maintenance personnel who are concerned with pressure vessel in-service inspection, rating, repair, and alteration in the various industries such as refining, petrochemical, chemical process, pharmaceutical, power, onshore and offshore industries.

Course Outline

1. Introduction to Mechanical Integrity and Risk
2. Corrosion and Metallurgy
3. Terms and Definitions
4. Owner/User Inspections Organization
5. Inspection, Examination, and Pressure Testing Practices
 - 5.1 Inspection Plans
 - 5.2 Risk-Based Inspection (RBI)
 - 5.3 Preparation for Inspection
 - 5.4 Inspection for Different Types of Damage Mechanisms and Failure Modes
 - 5.5 Types of Inspection and Surveillance for Pressure Vessels
 - 5.6 Condition Monitoring Locations (CMLs)
 - 5.7 Condition Monitoring Methods
 - 5.8 Pressure Testing



- 5.9 Material Verification and Traceability
- 5.10 Inspection of In-service Welds
- 5.11 Inspection and Repair of Flanged Joints
- 5.12 Inspection of Shell and Tube Heat Exchangers
- 6 Interval/Frequency and Extent of Inspection
 - 6.1 General
 - 6.2 Inspection During Installation and Service Changes
 - 6.3 RBI
 - 6.4 External Inspection
 - 6.5 Internal, On-stream, and Thickness Measurement Inspections
 - 6.6 Pressure-relieving Devices
 - 6.7 Deferral of Inspection Due Dates
 - 6.8 Deferral of Inspection Repair Recommendation Due Dates
 - 6.9 Review of Inspection Repair Recommendations
- 7 Inspection Data Evaluation, Analysis, and Recording
 - 7.1 Corrosion Rate Determination
 - 7.2 Remaining Life Calculations
 - 7.3 Maximum Allowable Working Pressure (MAWP) Determination
 - 7.4 FFS Analysis of Corroded Regions
 - 7.5 FFS Evaluations
 - 7.6 Required Thickness Determination
 - 7.7 Evaluation of Existing Equipment with Minimal Documentation
 - 7.8 Reports and Records

API 510 Pressure Vessel Inspection Code

- 8 Repairs, Alterations, and Rerating of Pressure Vessels and Pressure-relieving Devices
 - 8.1 Repairs and Alterations
 - 8.2 Rerating
- 9 Alternative Rules for E & P Pressure Vessels
 - 9.1 Scope and Specific Exemptions

- 9.2 Definitions
- 9.3 Inspection Program
- 9.4 Pressure Test
- 9.5 Safety Relief Devices
- 9.6 Records
- 10. End-of-Course Examination

Course Registration

Please register online at www.corrosionclinic.com
Or use the form below (photocopies of this form may be used for multiple bookings).

Dr/Mr/Ms _____
Organization _____
Contact Person _____
Contact Dept _____
Telephone _____ Fax _____
Email _____

Payment should be made by TT or online banking. Currencies in Australian Dollar, Canadian Dollar, US Dollar, Euro and Sterling Pound can be transferred directly without conversion. Our bank details can be found at the link below:

<https://www.corrosionclinic.com/payment.html>

Course Fee and Discount

Standard: \$3500 **Discount:** \$3150

The fee includes a hardcopy of course note, certificate, light lunch, coffee breaks each day during the course.

Discount applies to a group of 3 or more persons from the same organization registering at the same time, or early-birds making payment at least 8 weeks before the course commencing date.

Cancellation and Refunds

Cancellation or replacement should be conveyed to WebCorr in writing (email or fax). An administration charge of 50% of the course fee will be levied if the cancellation notice is received from 14 to 7 days before the course commencing date. No refund will be made for cancellation notice received 6 days and less. No refunds will be given for no-shows. Should WebCorr find it necessary to cancel a course, paid registrants will receive full refund. Refund of fees is the full extent of WebCorr's liability in these circumstances.



WebCorr has NACE certified Corrosion Specialist (#5047) providing customized in-house training, online and distance learning corrosion courses, corrosion seminars and workshops on corrosion, materials, metallurgy, paints and metallic coatings. Our corrosion courses are developed and taught by NACE certified Corrosion Specialist with over 30 years of practical experience in the field. Our training success is measured by your learning outcome.

