

API 510 Pressure Vessel Certification Preparation Program

The API 510 Pressure vessel certification Preparation Program is designed to equip individuals with broad knowledge base relating to maintenance, inspection, alteration and repair of in-service pressure vessels.

This program benefits employers and the industry as a whole by helping to:

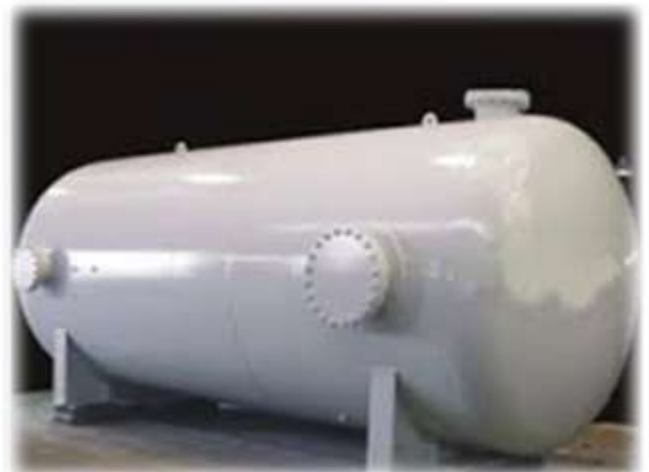
- Reduce the potential for inspection delays
- Improve management control of process unit operation, repair, and maintenance
- Provide a continued high level of safety using highly specialized and experienced inspectors.

The pressure vessel is one of the major assets of any process facility. Maintaining the integrity of the pressure vessel is very critical for the safety and efficiency of the facility. pressure vessel inspection is the first line of defense for maintaining the facility integrity and minimizing the maintenance cost.

API offers a 510 certification through their Individual Certification Program. The purpose of the certification is to identify individuals that possess broad knowledge in maintenance, inspection, repair, and alteration of in-service pressure vessel . In order to receive the certification, applicants must pass a two part — one closed-book and one open-book — examination.

In order to take the exam, applicants must meet minimum education and experience requirements. All applicants must have at least 1 year of experience supervising or performing inspection activities described in API 510. In order to maintain certification, pressure vessel inspectors must apply for recertification every 3 years. Education and specific experience requirements are as follows:

- Applicants with no formal education can apply to sit for the exam after acquiring 5 years of relevant industry experience.
- An applicant with a high school diploma or equivalent can apply after acquiring 3 years of relevant industry experience.
- Applicants with 2 year degrees or certificates in engineering or technology require 2 years of relevant experience.
- Those holding a bachelor of science degree or higher must have 1 year of relevant experience.



This API 510 pressure vessel Inspector Training covers the inspection, rating, repair, and alteration procedures for pressure vessels their associated pressure relieving devices that have been in-service. API 510 was developed for the petroleum refining and chemical process industries but may be used, where practical, for any pressure vessel . It intends for use by organizations that maintain or have access to an authorized inspection agency, a repair organization, and technically qualified piping engineers, inspectors, and examiners. So, if you attend this valuable qualification program and you become as approval piping inspector that can work professionally in any professional organization.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Prepare for the next API 510 exam and have enough knowledge and skills to pass

such exam in order to get the API 510 certification

- Perform the inspection, repair, alteration and rerating of in-service piping pressure vessel .

- Review API 510 body of knowledge, scope, references, definitions, owner and user inspection organization

- Discuss inspection and testing practices, frequency and extent of inspection, inspection data evaluation, analysis and recording, repairs, alteration and rerating of pressure vessel

- Identify the scope, vessel components, reasons for inspection, inspecting for deterioration in both shell and heads , frequency and time of inspection, and employ safety precautions and preparatory work as well as inspection tools, inspection procedures, determination of retirement thickness and records

- Enumerate the various design conditions and criteria, pressure design of pressure vessel components, fluid service requirements for pressure vessel components, fluid service requirements for piping joints, piping flexibility, materials, fabrication, assembly and erection, inspection, examination and testing as well as demonstrate nondestructive test methods.

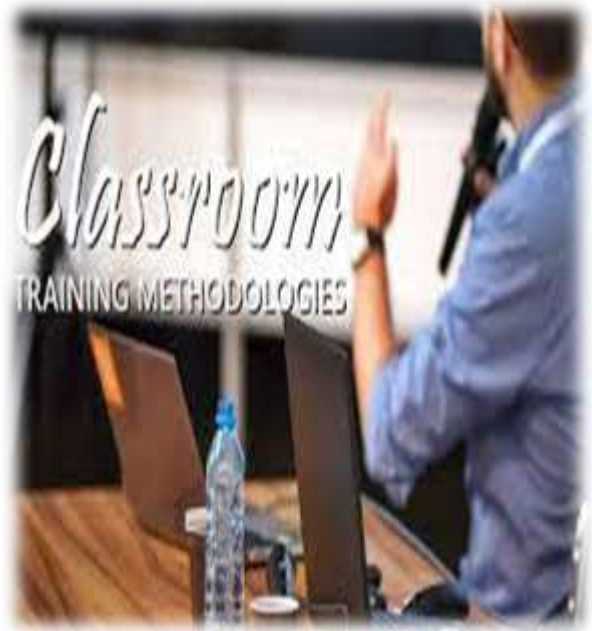


TRAINING METHODOLOGY

This API 510: pressure vessel Code (API Exam Preparation) training course will be conducted along workshop principles with formal lectures, videos, and interactive worked examples or online. Each learning point will be re-enforced with practical exercises and sample opportunities for discussion and sharing of experiences.

WHO SHOULD ATTEND THIS COURSE?

- Those wanting to pass API 510 Exam
- Those working in oil and gas company
- Those wanting to increase more knowledge of in-service and new construction piping process
- Those pursuing QA/QC career in oil and gas down-stream, revamp maintenance, and turn around



TRAINING API 510 pressure vessel MATERIALS:

- API 510: pressure vessel : Inspection, Repair, Alteration, and Rerating of In-Service pressure vessel
- API RP 571: Damage Mechanisms Affecting Fixed Equipment in the Refining Industry
- API RP 572: Inspection Practices for pressure vessel Components
- API RP 577: Welding Inspection and Metallurgy
- API RP 576 : inspection of pressure relieving devices.
- API RP 578: Material Verification Program for New and Existing Alloy Piping System
- ASME Section V: Nondestructive Examination
- ASME Section IX:Welding and Brazing Qualifications, Welding Only
- ASME 8 sec. 2 design of pressure vessel
- ASME pcc-2 repair of pressure vessel

