multisoft
Systems

API 510 Pressure Vessel Inspector Training

COURSE CONTENT

GET IN TOUCH

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About Multisoft

Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

About Course

The API 510 Pressure Vessel Inspector Training by Multisoft Systems is a comprehensive program designed for engineers, inspectors, and maintenance professionals involved in the inspection, repair, and maintenance of pressure vessels. This training equips participants with a thorough understanding of the API 510 standard, which governs the inspection, rating, repair, and alteration of pressure vessels in industrial settings.

Module 1: Introduction to API 510

- ✓ Overview of API 510 standard
- ✓ Scope, purpose, and applicability
- ✓ Roles and responsibilities of a Pressure Vessel Inspector
- ✓ Key definitions and terminology

Module 2: Codes, Standards, and Regulatory Requirements

- ✓ ASME Boiler and Pressure Vessel Code (BPVC) overview
- ✓ API standards relevant to pressure vessels
- ✓ Safety and compliance requirements
- ✓ Documentation and record-keeping

Module 3: Pressure Vessel Design Fundamentals

- ✓ Types of pressure vessels and components
- ✓ Materials used in vessel construction
- ✓ Design considerations and stress analysis
- ✓ Corrosion allowances and tolerances

Module 4: Inspection Techniques and Methods

- ✓ Visual inspection procedures
- ✓ Non-destructive testing (NDT) techniques: ultrasonic, radiographic, magnetic particle, dye penetrant
- ✓ Thickness measurement and corrosion monitoring
- ✓ Inspection intervals and planning

Module 5: Corrosion and Material Degradation

- ✓ Corrosion types and mechanisms
- ✓ Corrosion prevention and control methods
- ✓ Flaw identification and evaluation

- ✓ Impact on vessel integrity

Module 6: Repair, Alteration, and Rerating

- ✓ Repair methods and procedures
- ✓ Alteration techniques for vessels
- ✓ Rerating and derating of pressure vessels
- ✓ Documentation of repairs and approvals

Module 7: Risk Assessment and Fitness-for-Service

- ✓ Risk-based inspection (RBI) principles
- ✓ Fitness-for-service evaluation
- ✓ Case studies of vessel failures
- ✓ Preventive maintenance strategies