

# API 510

## Exam Preparation Presentation

5 DAY  
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CLASSROOM  
TRAINING

### Contact us

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#### Who should attend?

This training course is recommended for:

- Inspectors
- Engineers
- Technicians
- Asset Integrity Engineers
- Engineering Management
- Statutory or Regulatory Representatives
- Inspection Management

Involved in or responsible for the maintenance and inspection of pressure vessels.

#### Course Outcomes:

- Comprehensive review of all key elements of the API ICP Body of Knowledge approved for the targeted API ICP Authorized Inspectors examination.
- Review and practice on all elements which require Code work and calculations within the targeted exam.
- Detailed understanding on the principles, practices, and application of API 510.
- The course prioritizes all areas most commonly encountered within the API ICP Exam to assure the best possible preparation of the student for the API 510 Examinations.
- Creates a solid foundation for further development as an API 510 Authorized Inspector.



### Primary Course Objectives:

- Review and apply the objectives identified in the ICP BOK.
- Review in-depth critical areas commonly encountered within the API ICP 510 Examination.
- Review recommended examination practices.
- Perform general review of repair and inspection strategies related to pressure vessels, pipework, and above ground storage tanks.
- Development of Open Book and Closed Book Skills
- Preparation for API ICP Examinations
- Mock Examination
  - Course includes: 5 weeks access to our eLearning platform for homework assignments & mock examinations; and
  - Final skype Q & A session with lecturer prior to API ICP examinations

### Course Schedule:

#### Basic Schedule Monday (Day 1 08:30 – 16:30)

Registration & Tea/Coffee

Introduction, Course Objectives & ICP Exam Overview

Review of API ICP Examination

- Publications Effectivity Sheet
- Body of Knowledge
- Exam Details
- Test Recommendation Preparations

Overview on Homework Sheets

Introduction & Overview

Calculations and Code Work

- Internal Pressure
- External Pressure
- Joint Efficiencies
- Corrosion rates and Inspection Intervals

Examination Preparations (General Info & Guidance)

Homework Distribution

#### Basic Schedule Tuesday (Day 2 08:00 – 16:30)

Registration & Tea/Coffee

Calculations and Code Work (cont.)

- Static Head
- Pressure Testing
- Weld size for attachment welds at openings
- Nozzle Reinforcement

Question & Answer session

Homework Distribution

### Basic Schedule Wednesday (Day 3 08:00 – 16:30)

Registration & Tea/Coffee

NDE

- ASME V, Article 1, General Requirements
- ASME V, Article 2, Radiographic Examination
- ASME V, Article 6, Liquid Penetrant Examination
- ASME V, Article 7, Magnetic Particle Examination
- ASME V, Article 23, Ultrasonic Standards (Section SE-797 only)
- API 510

Welding & NDE

- API RP 577
- ASME Section VIII, Div. 1 & API 510 General non-destructive examination requirements

Welding

- Welding – ASME IX
- Welding – ASME VIII-I
- API Standard 510

Question & Answer session

Homework Distribution

### Basic Schedule Thursday (Day 4 08:00 – 16:30)

Registration & Tea/Coffee

General

- API 510, Pressure Vessel Inspection Code
- API RP 572, Inspection of Pressure Vessels
- API RP 571, Damage Mechanisms
- API RP 576, Inspection of Pressure Relieving Devices

Question & Answer session

Homework Distribution

### Basic Schedule Friday (Day 5 Overview)

Registration & Tea/Coffee

Overview

- API 510 (General Overview)
- API 572 (General Overview)

Mock Exams

- Closed Book 50 min. (30 Questions 11:10 - 12:00)
- Open Book 100 min. (22 Questions 12:45 - 14:30)

Review Punch Items

Final Remarks and Certificate Hand Out & Close Out



### **Information on our Course Developer / Trainer:**

Our course developer and lead lecturer, Mr. Kevin R. Maley is a 41-year-old Senior Inspection Engineer / Authorized Inspector of pressurized equipment and Quality Assurance / Control Specialist for the inspection, testing and certification of new and in-service equipment.

He has 21 years' experience in fabrication shops, in-service condition inspection and repair of equipment within petrochemical, power, utility, pulp, and nuclear environments (Currently focussed mainly within the petrochemical field).

He is an experience and patient lecturer that has been directly involved in and responsible for the development of effective and professional training material for API ICP 510, 570 and 653 inspector examinations since 2007 and currently maintains his certification in all the primary API ICP certification and holds ASNT NDT Level III certification in the MT, PT, RT & VT methods.

### **Key Qualifications & Certifications**

- IEng MInstNDT (EngC reg. no. 608847)
- BSc (hons) NDT (University of Northampton)
- API 653 Authorized above ground storage tank Inspector (Cert no: 33577)
- API 570 Authorized Pressurized Piping inspector (Cert no: 33340)
- API 510 Authorized Pressure Vessel Inspector (Cert no: 31035)
- API 571 Supplementary certification, Advanced knowledge of corrosion and materials (Cert no: 35833)
- API 580 Supplementary certification, Advanced knowledge of Risk-Based inspection practices (Cert no: 35875)
- API 577 Advanced knowledge in welding and metallurgy (Cert no: 37575).
- API 936 Refractory personnel certification (Cert no: 37502)
- IIW International Welding Inspector Diploma Comprehensive Level (Cert no: ZA/IWI-C00032)