

## API 570 Piping Inspector Certification Preparation Program

### Course general description:

The API 570 Piping Inspector Certification Preparation Program is designed to equip individuals with broad knowledge base relating to maintenance, inspection, alteration and repair of in-service metallic piping systems. 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 piping system is one of the major assets of any process facility. Maintaining the integrity of the piping system is very critical for the safety and efficiency of the facility. Piping inspection is the first line of defense for maintaining the facility integrity and minimizing the maintenance cost.

### Audience:

This course is designed 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.

### Course objectives:

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

- Prepare for the next API 570 exam and have enough knowledge and skills to pass such exam in order to get the API 570 certification
- Perform the inspection, repair, alteration and rerating of in-service piping systems
- Review API 570 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 piping systems as well as inspection of buried piping
- Identify the scope, piping components, reasons for inspection, inspecting for deterioration in piping, 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 .

### Course duration:

5 days

### Course location:

Cairo-Dubai-Istanbul

### Course contents:

#### **Day-1**

- Instructor Introduction to Training Course and what will be covered
- Review of ASME B31.3 Piping Design
- ASME B 16.5: Pipe Flanges and Flanged Fittings

#### **Day-2**

- Complete Review of ASME B31.3 Piping Design
- Review of API 570 In-service Inspection of Piping.

#### **Day-3**

- Complete Review of API 570 In-service Inspection Of Piping
- API RP 574: Inspection Practices for Piping System Components
- Review of API RP 578 Material Verification Program for New and Existing Alloy Piping System

#### **Day-3**

- Over view of API 571 API Recommended Practice 571, Damage Mechanisms Affecting Fixed Equipment in the Refining Industry
- Over view of ASME 5 Nondestructive Examination, Articles 1, 2, 6, 7 and 23

**Day-4**

- Over view API 577 recommended Practice for welding and metallurgy.
- Over view recommended Practice 576, Inspection of Pressure relieving Devices.

**Day-5**

- Over view ASME 9 Qualification Standard for Welding, Brazing, and Fusing Procedures; Welders; Brazers; and Welding, Brazing, and Fusing Operators, (Welding only).
- Test

**Methodology:**

- 50% lectures & concepts
- 10% Videos
- 10% Case studies
- 10% Exercises
- 10% Discussions
- 10% Software (if applicable or examples)

**Course code: (TEME013)**