## `Workshop on

## "Plant Piping And Valves Based on API -570 and B31.3"

3-Days Session

### **About Us**

We are the training providers and deals in Technical, HSEQ, Management and Soft Skills Training.

We have highly knowledgeable and experienced local & foreign subject matter experts. Our team is highly focused and provides the best support as per your requirements and needs.

We provide a platform from where you can add value in you teams. We are highly fascinated on the development of your Technical and Management Teams.

We can provide on-site and classroom training.

## **About Trainer**

Mr. Ahmad has graduated in Mechanical Engineering and Master of Computer Science. He is an API authorized / certified for Above Ground Storage Tanks (API-653), Pressure Vessels (API-510), Damage Mechanisms Affecting Fixed Equipment in the Refining Industry (API-571), Welding and Metallurgy (API- 577) and Risk Based Inspection (API-580). He has various NDT levels.

He has good knowledge of conventional and advance NDT techniques including intrusive and non-intrusive. He has earned more than 27 Years of experience in the field of Inspection, Metal fabrication & Erection and total Asset Integrity Management System.

He has sound knowledge of API, ASME, NACE, BS and international standards. He is an experienced technical auditor / trainer in the field of Asset Integrity Management System, RBI, Storage Tanks, Pressure Vessels, Plant Piping, Pipeline, Pressure Relieving devices, control valves and utility plant equipment including steam turbines etc.

He has conducted various in house and public courses abroad and within Pakistan for the companies like PETRONAS, ADCO, BP, PPL, Shell Pakistan, Shell Oman, Shell Dubai, PSO, Attock Refinery and etc. He is actively involved in the Internal audit, document review, technical procedures review and Inspection of steel fabrication, API 5L line pipe, piping, pipeline, Boilers, HRSG, Pressure Vessels, Heat Exchangers, Storage Tanks, Steel structure and equipment for cement plants, power plants and sugar mills etc. He has been conducting internal audits of the company. He is an approved Sector Expert by European Quality Certification Institute for the Engineering sector.

# **Course Description:**

A comprehensive 03 days course providing vital technical information that you can immediately apply to manage, evaluate and correct problems of your plant piping and associated valves including pressure relief and safety valves.

# **Course Objective:**

Worldwide public opinion is increasing the pressure to protect the environment. Operating companies throughout the world are becoming more aware of the expenses and penalties for spills of chemicals, petroleum products, etc. These operating companies are turning their attention to plant piping and associated valves to assure that they are being properly constructed, maintained, inspected, repaired and operated.

#### **Course Overview:**

A critical look at:

- Information on API standard requirements, procedures, materials and maintenance.
- Plant piping and associated valves testing, inspection and construction

- Advanced technology survey of site assessment and corrective action procedures
- Good practices for constructing and maintaining piping to meet operating standards and practices.

### **Course Outline:**

Day 1

- Pipe Code History and Basic Philosophy
- Introduction to piping
- Piping codes and standards
- Scope of B 31.3
- Some Important Definitions
- Diagram Illustrating Application of B31.3 Piping at Equipment
- Design (Conditions and Criteria)

#### Day 2

- Design (Pressure Design of piping components)
- Thermal Insulation of Piping
- Piping Supports
- Piping Systems
- Fabrication and Installation of piping
- Types of flanges and classes

#### Day 3

- Piping Failure and their causes
- Reasons of Inspection
- Inspection for Deterioration in Piping
- Corrosion monitoring of process piping
- Safety Precautions and Preparatory Work

