BLACKBIRD FOR TRAINING

Pipelines & Piping Inspection

31 October – 4 November 2027
Cairo (Egypt)



Pipelines & Piping Inspection

Ref: 321609_296306 **Date:** 31 October – 4 November 2027 **Location:** Cairo (Egypt) **Fees:** 4900 GBP

Introduction

Pipelines and piping systems are the lifelines of industries, requiring precise design, meticulous inspection, and proactive maintenance to ensure pipeline integrity and safety. This comprehensive course dives into the essential aspects of pipeline inspection, operation, and maintenance. Participants will gain the knowledge and practical skills needed to evaluate, maintain, and enhance the integrity of pipelines and piping systems while adhering to industry standards like ASME and API.

The training covers the latest pipeline inspection techniques, corrosion protection methods, vibration analysis, and much more, equipping participants with cutting-edge solutions for real-world challenges in pipeline maintenance and reliability.

Course Objectives

- Develop an in-depth understanding of ASME B31 rules for design, construction, inspection, and testing.
- Master pipeline inspection techniques and their application to ensure pipeline safety and performance.
- Gain knowledge of pipe materials, fabrication processes, and their influence on mechanical properties for pipeline integrity.
- Learn best practices for pipeline layout and support to enhance reliability and reduce risks.
- Understand and address corrosion mechanisms, prevention strategies, and repair solutions.
- Be introduced to advanced methodologies and research in pipeline maintenance.

Course Outlines

Day 1: Introduction to Pipelines and Piping Systems

- Overview of ASME & API Codes and Standards.
- Fundamentals of Maintenance and Pipeline Integrity.
- Understanding Pipe Dimensions and Schedules.
- System Design Pressure and Sizing Formulas.
- Applications of Pipeline and Piping Design.



Day 2: Leak Detection and Repair Techniques

- Online Pipeline Leak Detection methods and periodic inspections.
- Repair techniques: patches, welds, clamps, and flanges.
- Pipe and pipeline welding practices, including heat treatment.

Day 3: Inspection, Testing, and Pipeline Layout

- Hydrostatic and pressure testing methods.
- Introduction to PIGGING Techniques: Types of Pigs and monitoring internal corrosion.
- Pipeline layout and load considerations.
- Review of pipe supports and lessons learned from poor practices.

Day 4: Corrosion Protection Systems

- Fundamentals of Cathodic and Anodic Protection Systems.
- Impressed current systems and their role in pipeline safety.

Day 5: Vibration in Service and Pressure Transients

- Addressing mechanical and hydraulic-induced vibrations.
- Techniques to measure, analyze, and resolve pipeline vibrations.
- Identifying and mitigating liquid hammer and pulsation risks.

Why Attend This Course: Wins & Losses!

- Master pipeline inspection training techniques to boost operational safety and reliability.
- Gain insights into pipeline maintenance strategies to prevent costly downtimes.
- Stay ahead with knowledge of the latest industry standards and practices.
- Learn practical methods for resolving common pipeline challenges like leaks, corrosion, and vibrations.
- Enhance your skills with real-world applications, ensuring seamless pipeline operations and maintenance.

Conclusion

This course is your gateway to mastering the intricacies of pipeline inspection, maintenance, and integrity management. By understanding pipeline safety, employing advanced inspection techniques, and addressing common challenges with confidence, you can ensure your pipelines and piping systems operate at their peak.

Don’t miss this chance to advance your career and contribute to safer, more efficient pipelines. Enroll now to become a leader in pipeline operations and maintenance!

