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Industrial Piping Systems & Pressure Vessels

COURSE OVERVIEW

This course provides comprehensive training in the design, operation, and maintenance of industrial piping systems and pressure vessels. The curriculum emphasizes system design, stress analysis, safety considerations, and best practices for inspection, maintenance, and failure prevention, equipping professionals to manage reliable and compliant piping and pressure vessel systems in industrial environments. Participants will learn key principles of fluid flow, pressure containment, material selection, and mechanical integrity, as well as codes and standards governing industrial piping and pressure equipment.

WHO SHOULD ATTEND?

This course is designed for process, mechanical, and chemical engineers, as well as operation and maintenance engineers. It also benefits project engineers, supervisors, managers, and technical personnel involved in inspection, design, operation, and maintenance of industrial piping and pressure vessel systems, especially in oil and gas, chemical, and process industries.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Apply ASME Boiler and Pressure Vessel Code and B31 Piping Code requirements to design and analysis.
- Perform stress analysis of pressure vessels and piping systems under various loading conditions.
- Select appropriate materials for specific service conditions and environmental factors.
- Develop and review fabrication specifications and welding procedures.
- Implement mechanical integrity programs and risk-based inspection strategies.
- Conduct fitness-for-service assessments and remaining life evaluations.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- ASME code requirements and international standards for pressure equipment.
- Stress analysis methods for pressure vessels and piping components.
- Material selection criteria and degradation mechanisms.
- Fabrication processes and quality control requirements.
- Non-destructive examination methods and acceptance criteria.
- Fitness-for-service assessment methodologies.
- Risk-based inspection planning and integrity management.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.
1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded