MERCURY

Oil and Gas Pipeline Operations & Maintenance Training

06 - 10 Sep 2027
Munich (Germany)

Dubai - UAE: +971 4 450 5697
Istanbul - Türkiye: +90 539 599 1206
Amman - Jordan: +962 79 712 3347

Oil and Gas Pipeline Operations & Maintenance Training

Ref.: 9096_310661 **Date:** 06 - 10 Sep 2027 **Location:** Munich (Germany) **Fees:** 6200 **Euro**

Introduction to Oil and Gas Pipeline Operations and Maintenance Training:

Pipeline systems for the oil and gas industry are essential components in contemporary industrial operations. This comprehensive oil and gas pipeline maintenance and operations training course aims to elucidate the essential characteristics of efficient pipeline operations across various engineering contexts.

The oil and gas pipeline maintenance and operations course will explore the interplay between pipelines and flow-moving equipment, such as pumps and compressors while highlighting the technical nuances of operating pump and compressor stations.

Participants will gain insight into pipeline inspection and testing aspects that align with relevant API standards. Additionally, there will be an emphasis on pipeline maintenance methods, cleaning procedures, and requisite repairs to preclude system failures.

Significantly, this oil and gas pipeline maintenance and operations training proffers a robust foundation in pipeline maintenance training and oil and gas pipeline maintenance and encompasses pivotal pipeline maintenance services.

Target Audience:

- This oil and gas pipeline maintenance and operations course is meticulously designed for professionals in the petrochemical and process industry, notably those in oil refineries and gas production companies where pipeline operation and maintenance are paramount.
- Process, Chemical, and Mechanical Engineers.
- The operation, technical service, and maintenance experts are involved in the day-to-day operations, control, inspection, and upkeep of pipelines.
- Engineers and consultants are responsible for planning and modernizing production lines and technology integration.
- Technical personnel accountable for equipment maintenance and repair.

Learning Outcomes:

Upon the conclusion of this oil and gas pipeline maintenance and operations course, participants will be proficient in:

- Recognize the core principles of secure and efficient pipeline operation for various industrial uses.
- Build a comprehensive understanding and practical knowledge of operation and maintenance tasks.
- Illustrate the discussed concepts and acquire hands-on experience in their implementation.
- Follow the directions and best industrial practices for pipeline operation, control, inspection, and testing.

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Core Competencies:

The oil and gas pipeline maintenance and operations course focuses on developing the following competencies:

- Proficiency in the main aspects of pipeline operation that are both efficient and safe.
- Learn about approaches to pipeline flow control and measurements.
- Understand processes of material degradation, including aging and workload-related deterioration.
- Master of best practices in pipeline maintenance and cleaning.
- Know inspection routines and estimate the service life of pipeline systems.

Enhancing Pipeline Operations and Maintenance:

Under the oil and gas industry expertise umbrella, this oil and gas pipeline maintenance and operations training also aligns with credentials like pipeline operator certification and the pipeline operations certificate.

Engaging in this oil and gas pipeline maintenance and operations course will encapsulate theoretical and practical aspects of pipeline operation and maintenance training, setting a benchmark for professionals aiming to excel in gas pipeline operations and maintenance.

Course Content Overview:

Unit 1: Technical Characteristics of Pipelines:

- Selection and sizing of pipelines Considerations of flow rate, Maximum Allowable Working Pressure MAWP, and pumping power aligned with ASME B31.3 standards.
- Optimal Selection of Pipeline Materials and Compatibility with Working Fluids.
- Operate the mechanics of pump and compressor stations.
- Precision in Pipeline Flow Control and Measurement, Prospected for Custody Transfer.

Unit 2: Operation and Material Degradation:

- The dynamics of pipeline material aging include erosion, corrosion, and stress corrosion cracking.
- Implementing Corrosion Direct Assessment: External ECDA and Internal ICDA methods.
- Protective methods include Cathodic protection and varied coating technologies for external and internal surfaces.
- Inline inspection ILI is used to detect metal loss, and intelligent pigging NDT is used for continuous monitoring.
- Analysis of Pipeline Fatigue, Identification of Cracks, Seam Defects, and Preventative Strategies Against Ruptures.

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Unit 3: Operation and Safety Management:

- Deployment of Safety Instrumentation Coupled with Control Valves and Other Vital Safety Accessories.
- Manage transient operations and understand the effects of water hammer.
- Craft strategies for pipeline failure prevention and conducting root cause analysis.
- Unveiling Leak Detection Methods LDAR Complemented by Consistent Patrolling and Surveillance Utilizing SCADA Systems.
- Administration of Inspection, employing Risk-Based Inspection RBI tactics, and proficiency in Hydrostatic test methodologies.

Unit 4: Pipeline Maintenance Technologies:

- In-depth Exploration of Pipeline Repair and Maintenance Technologies, Focusing on Reconditioning Practices.
- Close Monitoring of Pipeline Vibrations and Ensuring the Integrity of Its Support Structures.
- Advanced Repair Technologies Such as Welding Composite Sleeves and Segment Replacements.
- Consistent Maintenance of Pipeline Valves, Fittings, and Other Pivotal Accessories.
- Valve repair techniques, including hot tapping and temporary plugging stopple.

Unit 5: Testing and Monitoring in Operation:

- Rigorous hydrostatic testing establishes allowable operating pressures alongside hydrostatic test pressure specifications.
- Assess the reliability and availability of active pipelines.
- Application of Risk-based Inspection RBI.
- Fitness for Service FFS Assessments.
- Estimate the remaining usable life of pipeline equipment.

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Registration form on the :
Oil and Gas Pipeline Operations & Maintenance Training

code: 9096 **From:** 06 - 10 Sep 2027 **Venue:** Munich (Germany) **Fees:** 6200 **Euro**

Complete & Mail or fax to Mercury Training Center at the address given below

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