



Corrosion Management in Oil and Gas Operations

Course Venue :
Munich

Course Date:
From 8 December 2025
To 12 December 2025

Course Fees:
6900 GBP

Course Brochure – ME130/London/11May2025 By
Harfard Training and Development
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About Course

Corrosion management is a critical aspect of operational integrity in the oil and gas industry, where harsh environments can lead to significant asset degradation. Effective corrosion management strategies not only enhance the longevity of equipment and infrastructure but also ensure safety and environmental compliance. This training course provides an in-depth exploration of corrosion mechanisms, inspection techniques, and mitigation strategies specifically tailored for oil and gas operations. Participants will gain valuable insights into the latest industry practices and technologies, empowering them to develop and implement effective corrosion management plans within their organizations.

The course is designed for professionals who seek to deepen their understanding of corrosion issues in the oil and gas sector. Through a combination of theoretical knowledge and practical applications, attendees will learn to identify potential corrosion risks and apply appropriate solutions. By fostering a comprehensive understanding of the factors contributing to corrosion, this training will enable participants to enhance their operational effectiveness and contribute to the sustainability of their organizations. Networking opportunities will also be provided, allowing participants to share experiences and best practices with peers in the industry.

The Objectives

- Understand the fundamentals of corrosion and its impact on oil and gas operations.
- Learn inspection techniques and methodologies for assessing corrosion.
- Develop effective corrosion management strategies and plans.
- Explore the latest technologies and best practices in corrosion prevention.
- Enhance skills in risk assessment and mitigation related to corrosion.
- Foster collaboration and knowledge sharing among industry professionals.

TRAINING METHODOLOGY

- Interactive lectures and presentations.
- Case studies and real-world examples.
- Group discussions and workshops.
- Hands-on practical exercises.
- Q&A sessions with industry experts.
- Networking opportunities for knowledge sharing.

Who Should Attend?

- Engineers and technicians in the oil and gas sector.
- Asset integrity and maintenance professionals.
- Safety and environmental compliance officers.
- Project managers and supervisors.
- Corrosion specialists and analysts.
- Students and researchers in related fields.

Course Outlines

Day 1

- Introduction to Corrosion: Definitions and Types
- Understanding the Corrosion Process and Mechanisms
- Factors Influencing Corrosion in Oil and Gas Operations
- Overview of Corrosion Damage and its Consequences
- Case Studies: Real-world Corrosion Failures
- Group Discussion: Sharing Experiences and Challenges

Day 2

- Corrosion Inspection Techniques: An Overview
- Non-Destructive Testing Methods for Corrosion Detection
- Corrosion Monitoring Technologies and Tools
- Developing Inspection Plans and Schedules
- Hands-on Exercise: Conducting a Corrosion Inspection
- Q&A Session with Inspection Experts

Day 3

- Corrosion Mitigation Strategies: An Introduction
- Coatings and Linings: Selection and Application
- Cathodic Protection Systems: Principles and Practices
- Chemical Treatment Methods for Corrosion Control
- Evaluating the Effectiveness of Mitigation Measures
- Group Workshop: Developing a Mitigation Plan

Day 4

- Leading People & Ensuring Safety in LNG Maintenance
- Building and leading high-performance LNG maintenance teams.
- Competency development and certification requirements for LNG maintenance staff.
- Safety leadership in LNG: managing risk in explosive and cryogenic environments.
- Change management in LNG maintenance transformation.
- Stakeholder engagement: coordination with operations, HSE, and regulatory bodies.
- Leadership case study: maintenance excellence under LNG safety constraints.

Day 5

- Regulatory and Compliance Considerations for Corrosion Management
- Understanding Industry Standards and Guidelines
- Developing Compliance Checklists and Procedures
- Environmental Impact of Corrosion and Mitigation Efforts
- Engaging Stakeholders: Communication and Reporting
- Q&A Session: Addressing Compliance Challenges

Training Method?

- Pre-assessment
- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests
- Each participant receives a copy of the presentation
- Slides and handouts

Training Method?

The course agenda will be as follows:

- Technical Session 08.30-10.00 am
- Coffee Break 10.00-10.15 am
- Technical Session 10.15-12.15 noon
- Coffee Break 12.15-12.45 pm
- Technical Session 12.45-02.30 pm
- Course Ends 02.30 pm