### Mastering Corrosion Control: Training Courses for Oil and Gas Industry



15 - 19 Dec 2024 Doha



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#### **Course Overview:**

Welcome to Corrosion Control Mastery, a groundbreaking course designed to equip professionals with in-depth knowledge and skills in corrosion control for the oil, gas, and water sectors. Unlike other training courses, this program delves deeply into the science of corrosion and its economic impact, offering practical solutions that can save your organization millions. This is an all-in-one package that combines corrosion control training courses, oil and gas accounting training courses, and oil and gas safety training certification courses to offer a comprehensive understanding. Don't miss this opportunity to elevate your proficiency and add significant value to your career and organization.

#### **Target Audience:**

- Petroleum Engineers
- Welding Engineers
- Process Engineers
- Inspectors and Inspection Supervisors
- Equipment Engineers
- Maintenance Engineers and Planners
- Design Engineers
- Service Company Representatives

#### **Targeted Organizational Departments:**

- **Engineering Departments**: Particularly Petroleum, Mechanical, and Process Engineers who directly engage with issues of corrosion control.
- Maintenance and Reliability Teams: To understand and implement preventive measures against corrosion.
- **Quality Control and Inspection Units**: For staff involved in checking material integrity and ensuring compliance with corrosion control standards.
- Research and Development: For teams focused on creating more corrosion-resistant materials or methods.
- **Procurement and Supply Chain Teams**: For selecting corrosion-resistant materials and services.

#### **Targeted Industries:**

• Oil and Gas Industry: Given the high costs of corrosion in this sector, knowledge is critical



for asset longevity and operational efficiency.

- Water Treatment Plants: Control of corrosion can significantly extend the life of pipes and treatment units.
- **Chemical Processing Industry**: Corrosion-resistant materials and knowledge can prevent leaks and accidents.
- **Maritime Industry**: Ship and offshore rig operators would gain substantially from improved corrosion control.
- **Construction Industry**: For those working with metals and other materials that need longlasting corrosion resistance.

#### **Course Offerings:**

By the end of the course, participants will be skilled in:

- Understanding and applying corrosion theories and mechanisms
- Employing monitoring and inspection methods for corrosion control in oil and water fields
- Implementing practical methods for controlling corrosion

#### **Training Methodology:**

The course utilizes a blended learning approach that combines traditional lectures with interactive sessions, case studies, and group work. Feedback sessions and real-world examples are integrated to ensure the most effective learning experience. The course incorporates advanced oil and gas online training courses materials for a well-rounded understanding.

#### **Course Toolbox:**

- Workbook on Corrosion Control Engineering
- Software for corrosion rate measurement
- Checklists for routine inspections
- Templates for corrosion management plans
- · Access to a library of oil and gas industry training courses

#### **Course Agenda:**

#### **Day 1: Fundamentals of Corrosion Control**

- Topic 1: Introduction to Corrosion Engineering
- **Topic 2:** Importance of Corrosion Control in Oil and Gas
- **Topic 3:** Materials of Construction: Metals and Alloys
- Topic 4: Economic Impacts of Corrosion



• **Reflection & Review:** Recap of key points and interactive Q&A on economic implications of corrosion control.

#### Day 2: Types of Corrosion I

- Topic 5: Galvanic Corrosion: Causes and Control
- Topic 6: Localized/Pitting Corrosion: Identification and Management
- Topic 7: Soil Corrosion: Prevention Strategies
- Topic 8: Corrosion Exposed to Stray Currents
- Reflection & Review: Hands-on practice with corrosion simulations and identification techniques.

#### **Day 3: Types of Corrosion II**

- Topic 9: Crevice Corrosion: Causes and Control
- Topic 10: Microbiologically Induced Corrosion MIC: Treatment and Management
- Topic 11: Wet Hydrogen Sulfide H2S Corrosion Mechanisms
- Topic 12: Corrosion Under Insulation CUI: Identification and Mitigation
- Reflection & Review: Case studies review and group discussions on mitigating corrosion types discussed.

#### **Day 4: Corrosion Control Methods I**

- Topic 13: Active Cathodic Protection: Sacrificial Anode Technique
- Topic 14: Passive Protection: Coating Types and Applications
- Topic 15: Cathodic Protection: Impressed Current Methodology
- **Topic 16:** Chemical Inhibitors: Types and Applications
- **Reflection & Review:** Participant presentations on designing a corrosion control program using the methods learned.

#### Day 5: Corrosion Control Methods II & Monitoring

- Topic 17: Corrosion Monitoring: Thickness Measurements using Ultrasonic Testing
- Topic 18: Risk-Based Inspection RBI in Corrosion Control
- Topic 19: Corrosion Coupons: Applications and Analysis
- Topic 20: Intelligent Pigs: Advanced Monitoring Techniques
- **Reflection & Review:** Final course wrap-up, Q&A, and feedback session on corrosion monitoring and future trends.

#### **How This Course is Different:**

Corrosion Control Mastery stands apart due to its comprehensive coverage, combining both theory



and practical applications. Unlike other oil and gas industry training courses, we offer a holistic approach to corrosion control, covering oil and gas safety training certification courses and oil and gas accounting training courses as well.

# WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

# **OUR VISION**

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

# **OUR MISSION**

We are dedicated to developing valueadding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

## WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.





### **Gamified and Interactive Training**

We understand that training delivery can be challenging, both online and offline. To ensure engagement and achieve learning objectives, we have developed our own activities and collaborated with industry-leading solutions to gamify our training sessions. This approach increases interaction levels and guarantees effective learning outcomes.



### **Our Training Cate gories**

We cover a wide range of training categories to cater to different needs and interests

Branding, Marketing, Customer Relations, & Sales Political & Public Relations Programs Programs

Finance and Accounting Programs Human Resources Management Programs Management & Leadership Programs

**Project Management Programs Quality & Process Management** Self-Development Programs

Join Agile Leaders today and embark on a transformative journey towards becoming a more agile and effective leader. Experience our customer-centric approach, actionable training, and guaranteed return on investment. Let us help you unleash your full potential in the dynamic business landscape.

