

# € TRAINING

Corrosion Control and Prevention in the  
Petrochemical Industry



7 - 11 April 2025  
London (UK)



# Corrosion Control and Prevention in the Petrochemical Industry

REF: E885 DATE: 7 - 11 April 2025 Venue: London (UK) - Fee: 6375 Euro

## Introduction:

This training program provides in-depth knowledge of corrosion mechanisms, prevention strategies, and mitigation techniques specific to the petrochemical industry. Through it, participants will explore material selection, protective coatings, cathodic protection, and inspection methods to ensure equipment integrity and operational reliability.

## Program Objectives:

By the end of this program, participants will be able to:

- Identify corrosion types and mechanisms in petrochemical environments.
- Apply effective strategies for corrosion prevention and control.
- Select appropriate materials and protective coatings for equipment.
- Implement cathodic protection techniques.
- Develop inspection and maintenance plans to manage corrosion risks.

## Target Audience:

- Corrosion Engineers.
- Maintenance and Reliability Professionals.
- Inspection and Integrity Specialists.
- Materials and Process Engineers.
- Health, Safety, and Environmental HSE Officers.

## Program Outline:

### Unit 1:

#### Fundamentals of Corrosion in Petrochemical Environments:

- Types of corrosion uniform, pitting, crevice, galvanic, etc..
- Corrosion mechanisms in petrochemical processing.
- Factors influencing corrosion temperature, pressure, chemicals.

- Recognizing signs and symptoms of corrosion damage.
- Impact of corrosion on safety and operational efficiency.

## Unit 2:

### Material Selection for Corrosion Control:

- Properties of materials used in petrochemical equipment.
- Selecting corrosion-resistant alloys and composites.
- Compatibility of materials with process media.
- Corrosion testing and evaluation methods.

## Unit 3:

### Protective Coatings and Linings:

- Types of protective coatings epoxy, polyurethane, ceramic.
- Surface preparation and coating application techniques.
- Inspection and quality control of coatings.
- Maintenance and repair of coatings and linings.
- Standards and guidelines for coating systems NACE, SSPC.

## Unit 4:

### Cathodic Protection Techniques:

- Principles of cathodic protection CP.
- Types of CP systems galvanic and impressed current.
- Design, installation, and maintenance of CP systems.
- Monitoring and troubleshooting CP systems.
- Compliance with industry standards NACE, ISO.

## Unit 5:

### Inspection, Monitoring, and Maintenance Plans:



- Non-Destructive Testing NDT methods for corrosion detection.
- Corrosion monitoring tools and techniques.
- Developing and implementing inspection programs.
- Analyzing inspection data and assessing risk.
- Creating long-term corrosion management and maintenance plans.