

Protective Coatings
Inspection, Maintenance &
Repair Techniques

Introduction:

This course thoroughly and systematically covers every aspect of coatings application and inspection techniques, maintenance and repair procedures. Coatings selection, specifications, applications and relevant industry standards for surface preparations of various substrates such as steel, galvanized steel, stainless steel, copper, and aluminum are also discussed in depth. The effect of cathodic protection on the performance of coatings is also covered in detail. This coatings short course trains the participants with the knowledge and skills required for effective coatings inspection, maintenance and repair of both organic coatings or paints and metallic coatings such as hot-dip galvanizing and metallic spray or metallization.

Who Should Attend?

Corrosion Control Engineers & Personnel, Process Engineers, Metallurgists, Inspection Personnel, Mechanical Engineers, Material Selection Personnel, Plant Contractors, Operations Engineers, Team Leaders & Supervisors, Maintenance Engineers, Maintenance Supervisors, Senior Plant Supervisors, Mechanical Engineers, Corrosion Control & Monitoring Systems Personnel, Equipment Engineers, Maintenance Engineers and Planners, Team Leaders, Managers &

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Coordinators, Construction Coordinators, Technologists, Safety Officers, Maintenance Team Leaders & Engineers, Design Engineers, Service Company Representatives, Oil and Gas Production Facilities Personnel, Chemists, Chemical Engineers, Inspectors and Inspection Engineers & Supervisors, Technicians and Supervisors, Environmental Specialists, New Petroleum Engineers, Asset Management Personnel, Construction Engineers, Refinery Chemists, Chemical Engineers, Personnel who are / will be responsible for detecting, inspecting, monitoring, controlling corrosion in oil and gas piping, pipelines used in production operations and Personnel responsible for metallurgy, corrosion or the prevention of failures in plant and equipment

Course Objectives:

By the end of this course delegates will be able to:

- The role of a coating inspector
- Corrosion concepts relevant to coating
- Characteristics of coatings & fundamentals of coatings
- Protective coating system & corrosion resistant organic coatings
- Designing for coatings & effect of substrate on coating life
- Importance of surface preparation
- Methods of application & health and safety aspects
- Coatings and cathodic protection & selection of coatings
- Coatings and cathodic protection & coating failures: causes and prevention
- Coating repair and maintenance & development of coatings specifications
- Quality control in coatings application & coatings inspection and testing

Course Outline:

- The role of a coating inspector
- Corrosion concepts relevant to coatings
- BS & ISO classification of corrosive environments

- Characteristics of coatings
- Fundamentals of coatings
- The protective coating system
- Corrosion resistant organic coatings
- Corrosion resistant zinc coatings
- Designing for coatings
- Effect of substrate on coating life
- Importance of surface preparation
- BS, ISO, SIS, NACE, SSPC standards relevant to surface preparation
- Methods of application
- Health and safety aspects
- Selection of coatings
- Coatings and cathodic protection
- Coating failures: causes and prevention
- Coating repair and maintenance
- Development of coatings specifications
- Quality control in coatings application
- Coatings inspection and testing
- Inspection procedures
- Documentation and logbook
- Inspection checklist