Corrosion Management in Industries

5 – Day Training Program

INTRODUCTION

Managing corrosion in industries, is the most effective method to reduce the cost of the products. This short course is intended to discuss the various corrosion control methods used to manage the corrosion, as well as the basic principles of corrosion, thus extending the life of the engineering components.

WORKSHOP OBJECTIVES

- Addresses the types of corrosion problems encountered in various industries, especially the Oil and Gas industries.
- It is aimed at corrosion engineers undergoing career development.
- It provides a useful refresher for the senior corrosion professionals.
- It provides corrosion awareness for engineers from various disciplines who
- Wish to broaden their understanding of the corrosion aspects of projects or facilities for which they are responsible.

WHO SHOULD ATTEND

- Corrosion Engineers and Technicians
- Inspection, Maintenance Engineers and Managers.
- Chemical, Metallurgical, Mechanical, Civil, Industrial and Petroleum
- Engineers
- Safety and Risk Peofessionals

PROGRAM

DAY ONE

- Background: Corrosion and its Consequences
- Cost of Corrosion
- Prediction of Corrosion
- Basic Electrochemical Theory of Corrosion
- Forms of Corrosion
    - Uniform
    - Localized (Mechanical, SCC, HIC and SOHIC)

- Localized (Non-mechanical, Crevice, Bi-metal and Pitting and Erosion corrosion)

DAY TWO

- Corrosion in Specific Industrial Environments:
- Corrosion in Water
- Corrosion in Soil
- Microbially Influenced Corrosion (MIC)
- Corrosion in Oil and Gas Insdustries (Sweet and Sour Systems)

DAY THREE

Design for Corrosion Control:

- Materials Selection
  - Alloy Designations
  - Carbon Steels, Low Alloy Steels and Cast Irons
  - Stainless Steels
  - Nickel and Copper Alloys

DAY FOUR

- Cathodic Protection
- Protective Coatings
  - Metallic Coatings
  - Inorganic and Organic Coatings
  - Corrosion Inhibition

DAY FIVE

- Corrosion Testing and Monitoring
- Corrosion Economics
  - Corrosion Testing and Evaluation
    Simulated Service Testing
  - Corrosion Testing in Atmosphere
  - Corrosion Testing in Water
  - Corrosion Testing in Soil
  - Evaluation of SCC and Hydrogen Damages
  - Evaluation of Intergranualar Corrosion
  - Evaluating of Pitting Corrosion