

A Live Online Course

# **CORROSION CONTROL and CATHODIC PROTECTION**

by

**Ir. In Jumanda Kasdadi MT.**

## **INTRODUCTION**

Corrosion is a common problem in the oil and gas fields. If it is not controlled, it can become a safety issue and cause severe financial losses. Therefore, corrosion must be prevented, mitigated, or stopped.

This Corrosion Control and Cathodic Protection course will cover the following topics:

- Metallurgy and material selection
- Internal corrosion by CO<sub>2</sub> and H<sub>2</sub>S
- Top of line corrosion
- Corrosion caused by bacteria
- Sand erosion and internal corrosion
- Corrosion control using chemicals
- Corrosion monitoring
- External corrosion control by painting and coating
- Cathodic protection methods

By attending this course, participants will:

1. Understand the causes of corrosion.
2. Know the different types of corrosion
3. Learn how to prevent and minimize corrosion
4. Understand the roles of metallurgy and material selection in corrosion control
5. Know the various corrosion monitoring and inspection methods
6. Learn how to protect both onshore and offshore structures from corrosion

## **COURSE OUTLINE**

- Corrosion Mechanism and electrochemistry
- Internal Metal Loss
  - CO<sub>2</sub> and H<sub>2</sub>S Metal Loss Corrosion, Top of Line Corrosion
  - Galvanic Corrosion, Bacterial Corrosion, Sand Erosion
- Control of Metal Loss due to corrosion (Design, Chemical Treatment, Material Selection, and Coating)
- Monitoring of Internal Corrosion
- Metallurgy and Material Strength
- External Corrosion: Atmospheric Corrosion, Seawater Corrosion, Corrosion in Soil
- Control of External Corrosion - Principles of Cathodic Protection
- Cathodic Protection Methods - Sacrificial Anode System and Impressed Current method
- Examples of Impressed Current Cathodic Protection (ICCP), the Sacrificial Anode Cathodic Protection (SACP)
- The equipment used to control and monitor pipeline corrosion: Pigging, In-Line Inspection (ILI)  
, Inspection using Acoustic Emission (AE) for Storage tanks
- Drill Pipe Corrosion Control

## **WHO SHOULD ATTEND**

- Production engineers and supervisors
- Drilling engineers and supervisors
- Well service engineers and supervisors
- Corrosion specialists
- Oilfield chemists and lab personnel
- Maintenance personnel

## **COURSE DELIVERY**

- This online course will be delivered via Zoom.
- Each participant needs to prepare a PC to join this program.

- Participants will receive course material before the training.
- Participants will receive a certificate after the training.

### **DAILY HOURS**

Training time is from 09:00 to 15:00 with several breaks in between.

Session 1 → 09:00 – 10:30

Session 2 → 11:00 – 12:00

Session 3 → 13:30 – 15:00

### **About The Instructor**

Ir. In Jumanda Kasdadi is an experienced instructor and he has been conducting training for oil and gas companies since 1997.

He has BS and MS in chemical engineering degrees from the Institute Technology Bandung.

Companies that have received Mr. Kasdadi's inhouse training include Chevron, Pertamina Hulu Energi–ONWJ, ConocoPhillips, Total, Medco, Petrochina, Pertamina, Star Energy, and many others.

Ir. In Jumanda Kasdadi was involved in several front-end engineering designs (FEED) and Risk Based Inspection projects.

### **Registration Information**

Title : CORROSION CONTROL AND CATHODIC PROTECTION

Date : April 21 – 23 2021

Tuition fee : IDR 8,500,000 per person

### **Two ways to enroll:**

1. Enroll online at [www.lditraining.com](http://www.lditraining.com)
2. Email your enrollment message to LDI Training at [lditrain@indo.net.id](mailto:lditrain@indo.net.id)

LDI Training will send the access code for this online training after we have received the participant's registration, email address, and WA number.

**For more information about the course please visit [lditraining.com](http://lditraining.com) or contact PT Loka Datamas Indah at [lditrain@indo.net.id](mailto:lditrain@indo.net.id).**