
Crude Overhead Corrosion Control

Overview

The overhead corrosion in crude units is a common and not always well understood problem in the unit. At the same time, it is one of the most important problems the refiner can face; corrosion problems are associated with reliability, yield loss and potentially fires and explosions. This training program covers extensively the corrosion fundamentals from the crude characteristics up to the crude column, the overhead system, operational issues and how to tackle the problem from the designer's point of view.

Program Outline

- 1. Crude Oil Characteristics**
 - a) Introduction
 - b) API
 - c) Sulphur
 - d) TAN
- 2. Corrosive compounds in Crude Oil**
 - a) H₂S
 - b) NH₃
 - c) HCl
 - d) Organic Acids
- 3. Overhead Corrosion**
 - a) Operating Conditions
 - b) Corrosive species
- 4. Atmospheric Overhead Corrosion**
- 5. Vacuum Overhead Corrosion**
- 6. Corrosion Abatement Methods**
 - a) Desalting
 - b) Caustic
 - c) Chemicals
 - d) Metallurgy
- 7. General Operational Guidelines (For corrosion control)**
 - a) Crude Unit
 - b) Vacuum Unit
- 8. General Design Guidelines (For corrosion control)**
 - c) Crude Unit
 - d) Vacuum Unit

Who should attend?

Program is intent for Operations & Process Engineers dealing with day-to-day operations, Plant Superintendents and Supervisors, Design Engineers, etc. Program is very useful for engineers which are starting to work in a crude unit as well as for those with several years of experience. All will be benefit from this training.

Learning Outcome:

After the course, the participants will able to:

- ✓ Understand the importance of Corrosion in crude Units
- ✓ Understand the different elements and situations impacting corrosion
- ✓ Learn guidelines find bad actors in systems affected by overhead corrosion
- ✓ Develop a draft plan for their plant/location.

Instructor:

Germán Luna-Mejías, BSc ChE, P. Eng., FS Eng. (PH&RA).

Member of AIChE, CSChE and Professional Engineer in Alberta, Canada. He holds a Chemical Engineer Degree from Universidad Simon Bolivar (Venezuela); with more than 35 years of experience in the Oil & Gas Industry in Venezuela and Canada. Broad experience in Process Engineering, Operation's Engineering, Process Safety and Volunteer Firefighter for Refinery Operations. He has studied the corrosion problem in Crude Distillation Units for more than 15 years in Refineries and Crude-Upgraders and has presented several papers nationally (Venezuela) and Internationally (AIChE Spring Meetings) and have developed his own correlations to predict and model corrosion systems. He is the founder of LUPATECH CANADA.

Additional program details

- This program is 8 hours long. (2 days x 4 hrs each is also available).
- International standards (CCPS, API) are used in this training.
- Completion certificate available
- Training available virtual & on-site for larger groups.

Information & Registration :

- Email us: german@lupatechltd.ca
- Visit our webpage: <https://lupatechltd.ca>