

GAS DRYING, SWEETENING AND PROCESSING

PRE004

COURSE DESCRIPTION

This comprehensive course delves into the intricate realm of gas process treatments and sulphur recovery, covering essential aspects of chemistry, sweetening, and recovery processes. Participants will engage in discussions on acid and sour gas sweetening, sulphur recovery processes, and practical applications. The course encourages active participation through open discussions and group exercises.

COURSE OBJECTIVES

By the end of this course, participant will be able to:

- Understand feed specifications
- Grasp the functionality of glycol systems
- Define and comprehend the significance of tripping in the context of gas processing
- Acquire knowledge about gas and glycol drying processes
- Identify and address dehydration operating problems
- Gain insights into gas sweetening processes

WHO SHOULD ATTEND

This course is tailored for chemical engineers, shift engineers, and operators seeking to enhance their knowledge and proficiency in gas processing technologies.

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Feed Specifications

- Detailed overview of feed specifications and their significance in gas processing.

2. Glycol Systems

- Types of glycol used, physical and chemical properties.
- Functionality, design, and operating conditions.
- Impact analysis of system failure on plant operations.
- Techniques for regeneration and pH control.

3. Stripping

- Definition, design, and operating conditions.
- Effects of chilling and its impact on efficiency.
- Connection with system failure and efficiency reduction.

4. Fractionation Section

- Design and operating conditions.
- Processing of NGL feed from the stripping section.

5. Gas Adip Treating Section

- Design and operating conditions.
- Understanding feed gas and product gas quality.
- Adip regeneration processes.

6. Propane Adip Treating Section

- In-depth exploration of processes and conditions.

7. Product Treating Section and Product Cooling Section

- Detailed insights into operations.

8. Refrigeration

- Effects of refrigeration failure on efficiency.
- Compressor/turbine details.
- Impact of compressor failure on feed.

9. Fuel Gas System

- Detailed examination of design and operating conditions.

10. Hot Oil System

- Design and operating conditions.
- Furnace lighting sequence, safety devices, and system failure impact analysis.

11. Drying of Gases and Glycol System:

- Various methods including absorption, compression, cooling, and adsorption.
- Practical examples and case studies for illustration.

12. Function of the Glycol Regeneration Unit

- Comprehensive overview of glycol regeneration processes.

13. Dehydration Operating Problems

- Troubleshooting techniques for common problems.
- Preventive measures for avoiding dehydration issues.

14. Gas Sweetening

- General considerations and safety aspects.
- Types of contaminants, process selection, and classification.
- In-depth examination of gas sweetening chemistry.
- Identification and resolution of operating problems.
- Overview of selective sweetening systems.

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