

TRAINING TITLE

Gas Dehydration, Glycol Regeneration and Condensate Treatment - Fundamental

Training Duration

5 days

Training Venue and Dates

PE2023	Gas Dehydration, Glycol Regeneration and Condensate Treatment - Fundamental	5	15-19 Jan. 2024	\$6,500	Amsterdam, Netherlands
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In any of the 5-star hotels. The exact venue will be informed later.

Training Fees

- \$6,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch

Training Certificate

Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING WORKSHOP DESCRIPTION

- The course will define the gas composition and impurities.
- The course will define the sales gas requirements and how gas can be conditioned to meet the required specifications for the next step.
- The course will give a detailed understanding of gas water content and its calculation.
- Gas hydrate will be briefly explained, its nature, prediction, and inhibition.
- The course will cover an overview of gas conditioning and processing to understand the key processing steps required to make saleable products.
- The course will explain and describe the different techniques of gas dehydration.
- The participants will gain a detailed understanding and working knowledge of glycol dehydration and regeneration unit.
- The process of the Booster Station will be detailed described. Its startup, shutdown, and upsets will be discussed.
- The utilities used in the Booster Station will be defined.
- The control systems and ESD will be understood.

TRAINING OBJECTIVES:

Upon the successful completion of this course, each participant will be able to:

- Describe booster station gas dehydration and glycol regeneration unit processes.

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- Apply process knowledge to operate (start-up, shutdown, normal operation, trips and upsets, troubleshooting) major packages, utilities, and control systems of the booster station gas dehydration and glycol regeneration unit.
- Demonstrate awareness about chemical safety and the handling of chemicals used in booster station gas dehydration and glycol regeneration unit processes.
- Describe booster station condensate treatment unit processes.
- Apply process knowledge to operate (start-up, shutdown, normal operation, trips and upsets, troubleshooting) major packages, utilities, and control systems of the booster station condensate treatment unit.
- Demonstrate awareness about chemical safety and the handling of chemicals used in booster station condensate treatment unit processes.
- Explain the purpose and workings of the fire and gas system and ESD system.
- Evaluate the personal safety and process safety risks associated with booster stations and associated systems.

WHO SHOULD ATTEND?

The course is highly recommended for Process Operators and those who are doing operation activities.

- Operators
- Process Operators
- Ideal for those who want to get the concepts basic knowledge and experience of booster station gas dehydration units.
- Other operators desire a better understanding of gas operation principles.

TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your questions and to share in the development of the right answers using your analysis and experiences. Tests of multiple-choice type will be made available daily to examine the effectiveness of delivering the course.

All presentations are made in excellent colourful PowerPoint. Very useful Course Materials will be given.

- **25% Lectures**
- **30% Workshops and work presentation**
- **25% Group and individual Works & Practical Exercises, Role Plays, Functionals Exercises, gamification, Questionnaires**
- **20% Videos Case Studies Assessments & General Discussions**

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This training course will merge technical presentations, extensive discussion, and different actual Field Case Studies supported by Video Materials to ensure that all participants will be able to use their new knowledge. The course will utilize different learning techniques to ensure maximum understanding, comprehension, and retention of the information presented. The daily workshops will be highly interactive. This involves PP presentation, actual real case histories, class problems and review questions on each topic.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

MODULE 1

- Introduction to Gas Composition and Properties
 - Gas Composition and Impurities
 - Limits of Impurities
 - Gas Properties and Specifications
 - HC and Water Dew points
 - Gas Conditioning and Processing Overview
 - NGL Products and Specifications

- Water Content and Gas Hydrates
 - Water Content of Gases
 - Hydrate Description
 - Hydrate Formation Conditions
 - Hydrate Formation Prediction
 - Hydrate Inhibition
 - Examples

MODULE 2

- Gas-liquid Separation
 - Principles of Separation
 - Phases of Separation
 - Stages of Separation
 - Separators Classification
 - Separator Internals

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- Separators Operation & Troubleshooting
- Troubleshooting procedure for liquid carries over in outlet gas stream.
- Condensate Treatment
 - RVP Control
- Gas Compression
 - Principles
 - Types of Compressors
 - Surge Control
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MODULE 3

- Gas Dehydration
 - Methods of Dehydration
 - Glycol Dehydration Unit
 - Types of Glycols and its properties
 - Process Unit Description
 - Glycol Regeneration
 - Operational Problems Troubleshooting

MODULE 4

- Booster Station Gas Dehydration
 - Process Description
 - Unit Normal Operation
 - Unit Start-up and Shutdown
 - Unit Troubleshooting
 - Utilities in the Unit
 - Control Systems and ESD
 - Chemical Safety and Handling

NOTE:

Pre & Post Tests will be conducted.

Case Studies, Group Exercises, Group Discussions, Last Day Review, and assessments will be carried out.

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