

A Live Online Course

Gas Handling, Conditioning and Processing

With Dr. Maurice Stewart

INTRODUCTION

In this Gas Handling, Conditioning and Processing Facilities online training, Dr. Maurice Stewart will explain all aspects of both onshore and offshore gas handling, conditioning, and processing facilities with particular focus on the practical aspects of managing, evaluating, sizing, selecting, installing, operating, and troubleshooting. A proper understanding and execution of each of the above are key in assuring a surface production facility that operates at maximum efficiency and with minimal problems.

Potential operating problems with practical solutions are covered, including hydrate formation, glycol loss, high gas temperature, “off-spec” moisture content, etc.

Participants will be given practical exercises and case studies that emphasize the principles covered.

Maurice Stewart will personally present this live online training.

WHAT YOU WILL LEARN

- Develop a “*feel*” for the important parameters in designing, selecting, installing, operating and trouble-shooting gas handling, conditioning, and processing facilities
- Understand the uncertainties and assumptions inherent in evaluating, designing and operating the equipment in these systems and the limitations, advantages, and disadvantages associated with their use
- How to evaluate, select and evaluate processes used to dehydrate natural gas, meet hydrocarbon dew point specification and extract NGL’s
- How to size, select, specify, operate, maintain, test and trouble-shoot surface equipment used with the handling, conditioning, and processing of natural gas and associated liquids such as separators, heat exchangers, absorption units, adsorption units, hydrocarbon recovery units, gas sweetening systems, recovery, and fractionation systems, dehydration systems, refrigeration, low-temperature separation units, JT plants, compression systems, facility piping considerations, process control, and safety systems.
- How to perform and review equipment sizing for major process equipment.
- How to evaluate and select the correct process and equipment used to meet sales specifications for a given situation.
- How to recognize and develop practical solutions to operating problems typically encountered in gas handling, conditioning, and processing facilities including glycol loss, debottlenecking, “off-spec” moisture content, etc.

COURSE CONTENT

- Basic principles, fluid analysis, terminology, flash calculations
- Physical properties of hydrocarbon fluids, phase behavior
- Process selection and planning, sampling
- Process control, instrumentation
- Fluid hydraulics, fluid flow, and pressure drop and relief systems
- Gas handling, conditioning, and processing systems, project planning
- Water content and hydrate inhibition, temperature drop determination
- Hydrate prediction and inhibition methods, chemical injection system
- Heat transfer theory, heat exchanger equipment, and configurations
- Process heat duty, fouling, overall film coefficient determination
- Heat exchanger selection and sizing using TEMA and ASME Codes
- Separator equipment, internals, factors affecting fluid separation
- Separator selection, design, and sizing using ASME Codes
- Separator operating problems, maintenance, and trouble shooting
- Pumps and pumping systems, classification, NPSH
- Compressor and drivers, classification, types, configurations
- Compressor performance curves and off-design evaluations
- Compressor design, specification and piping considerations
- Acid gas sweetening processes, design and process selection
- Adsorption and absorption processes

- H₂S and CO₂ removal processes, sulfur recovery
- Glycol dehydration systems, design and sizing and considerations
- Glycol maintenance, care, and trouble-shooting
- Adsorption dehydration and hydrocarbon removal
- Gas conditioning, treating, processing and fractionation

WHO SHOULD ATTEND

Facility engineers, process engineers, senior operating personnel, field supervisors, managers, and other specialists who are involved with or want to know more about or want to acquaint or reacquaint themselves with the basic theory, details of selection, design, and operation of gas handling, conditioning, and processing facilities.

The course is designed specifically to address the day-to-day needs of those involved with selecting, designing, installing, operating, evaluating, testing, and troubleshooting oil, gas, and water handling facilities.

ABOUT THE INSTRUCTOR



Dr. Maurice Stewart is internationally respected for his teaching excellence and over 45 years of experience in all aspects of facilities engineering. He has provided consultation and/or instruction to tens of thousands of professionals in numerous companies in virtually every oil and gas production sector in the world.

He has authored or co-authored 12 books, including the widely acclaimed “**Surface Production Operations**” series which continues to be the standard for the industry.

Also, he has published numerous technical articles in industry publications, co-authored multiple chapters in the “**Facilities and Construction Engineering, Volume III of the Petroleum Engineering Handbook**”, taught numerous short courses for the Society of Petroleum Engineers (SPE), and was on the Petroleum Engineering faculty of Tulane University and Louisiana State University where he developed and taught eight graduate-level courses in surface production operations.

COURSE DELIVERY METHOD

- This live online course is conducted in English.
- Each participant needs a PC and WIFI connection to attend this course.
- Participant will receive materials course before the training
- Participants will receive a certificate after completing the training.

DAILY WEBINAR HOURS

Session 1 – 9:00 – 10:30

Session 2 – 11:00 – 12:00

Session 3 – 12:30 – 13:30

Singapore Time (GMT +8)

Online learning, exercises, and competency assessments will be required to be completed before the next day’s session.



Two ways to register:

1. Email LDI Training at lditrain@indo.net.id
2. Register online at www.lditraining.com

Contact Information

If you need more information about this training, please contact PT Loka Datamas Indah by:

Email: lditrain@indo.net.id