

AN LDI TRAINING WEBINAR

GAS HANDLING, CONDITIONING AND PROCESSING

Learn How to Design, Operate and Troubleshoot

by

Dr. Maurice Stewart, PE., CSP
“Worldwide Petroleum Training”

About the Course

In this intense and comprehensive 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.

A substantial amount of time is spent on working practical exercises and case studies that emphasize the principles covered. The material covered is based on Volume 2 of the widely acclaimed series of *Surface Production Operations: Design of Gas Handling Systems and Facilities* co-authored by Ken Arnold and Maurice Stewart. The series has been the “standard” for the oil and gas industry for over 35 years.

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.

Webinar 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 separation
- Separator selection, design, and sizing using ASME Codes
- Separator operating problems, maintenance, and troubleshooting
- Pumps and pumping systems, classification, NPSH
- Compressor and drivers, classification, types, configurations
- Compressor performance curves and off-design evaluations
- Compressor design, specifications 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 troubleshooting
- Adsorption dehydration and hydrocarbon removal
- Gas conditioning, treating and processing processes, 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.

Daily Webinar Hours

Session 1 – 8:00 – 9:30

Session 2 – 10:00 – 11:00

Session 3 – 11:30 – 12:30

Western Indonesia Time (GMT +7)

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

REGISTRATION INFORMATION

Webinar Date: November 9 - 13, 2020

Tuition: IDR 29,500,000.

Two ways to enroll:

1. Enroll online at www.lditraining.com
2. Email your enrollment message to LDI Training at lditrain@indo.net.id

For more information please contact to:

PT. Loka Datamas Indah
LDI Training

Telephone: +62 21 6326911
E-mail : lditrain@indo.net.id
Web site : www.Lditraining.com