

GAS DEHYDRATION & BOOSTER STATION UTILITIES

PRD038

COURSE DESCRIPTION

This course identifies the function of each component of Gas dehydration and desalting plants , operational aspects , different treating methods , use of chemicals and problem troubleshooting.

Also the participants will Learn how to operate booster station utilities by understanding the functions and specifications of booster stations and utilities operation & the Purging procedures and site precautions.

COURSE GOAL

To enhance the participants' knowledge, skills, and attitudes necessary to learn how to operate booster station utilities by understanding the fundamentals of chemical injection and utilities operation also the specifications of booster stations and utilities operation.

COURSE OBJECTIVES

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

- Identify the function of each component of Gas dehydration and desalting plants.
- Learn operational aspects and different treating methods
- Learn the use of chemicals and problem troubleshooting.
- Learn how to operate booster station utilities.
- Understand the functions and specifications of booster stations and utilities operation.
- Understand the Purging procedures and Site precautions.

WHO SHOULD ATTEND

- Engineering , technical, operating and supervisory staff and all Senior production operators.
- Junior production engineers.

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Gas Dehydration

- Water-Hydrocarbon Behavior.
- Hydrate Inhibition.
- Glycol Dehydration.
- Adsorption (Molecular Sieve) Dehydration.

2. Functions of Booster Stations

- Using Booster Station in oilfield facility.
- Using Booster Station with Gathering Centers.
- Separation the condensate.
- Dehydrates (removes water) from both compressed gas and condensate.
- Receives and dehydrates condensates from the Gathering Centers.

3. Specifications of Booster Stations

- System components overview.
- Instrument assembly.
- System installation.
- System enclosures.
- Piping and valves.
- System control.
- Practical cases.

4. Packaged Booster Stations

- Pit less Boosters.
- Pumps.
- Motors.
- Control Panel.
- Isolation valves.

5. Pumping Equipment and Appurtenances

- Pumping capacity requirements.
- General pump, motor and wiring installation requirements.
- Line-shaft vertical turbine pumps.
- Submersible vertical turbine pumps.
- Motor protection.
- Pump variable output control devices.
- Well appurtenances.
- Pump discharge lines.
- Practical cases.

6. Booster Station Utilities

- Routine and emergency operation of generators & fire water pumps.
- Emergency operation of spill over.

- Monitor of dosage rates.
- Learn theory of operation of the following systems:
 - Plant air, instrument air and humidryers.
 - Fuel gas.
 - Chemical injection/chemical transfer.
 - Fire water .
- Principle of chemical injection.
- Booster station utilities and power generating systems.
- Basic alarm management.
- Fire fighting systems.
- Fuel gas systems.
- Flares.
- Examples and exercises.

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