



DE129

X-mas Tree & Wellhead Operations, Maintenance and Testing

Course Introduction:

Wellhead and Xmas tree is the main equipment for oil production, water injection and down hole operation. It is installed on the casing head to seal the annular space between casing and tubing, control wellhead pressure, adjust well flow rate and transport oil to pipeline.

This course is designed to provide an up-to date overview of x-mas tree, wellhead equipment, mechanical barriers, safety valves and wellhead operating control system. Participants will develop a better understanding of wellhead operating procedures and working under safe conditions.

Course Objectives:

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

- ✓ Apply and gain an in-depth knowledge on x-mas tree & wellhead operations, maintenance and testing
- ✓ Discuss the various wellhead equipment as well as x-mas tree, tubing hanger, production packers & landing nipples
- ✓ Practice barriers principles & well safety on hydraulic barriers and mechanical barriers as well as subsurface control valve packer setting and testing
- ✓ Demonstrate flanging of the wellhead, wellhead safety valves and control system
- ✓ Apply the proper procedures of x-mas tree and wellhead operations to work under safe conditions

Who Should Attend?

This course is intended for those who are involved in x-mas tree and wellhead operations, maintenance and testing such as field operations, production, maintenance, petroleum, reservoir and field engineers, wellhead maintenance supervisors, wellhead operations supervisors and other staff will definitely benefit from this course.

Course Outline:

Day 1:

- **Introduction to maintenance operations**
- Wellhead Equipment
- Purpose of the wellhead

- Major components of the wellhead
- Purpose, design and operation of each wellhead component
- X-mas tree
- Tubing hanger
- Production packers & landing nipples
- Safety, health and environmental concerns
- Subsurface control valve packer setting and testing

Day 2:

TYPES OF WELLHEAD AND ITS APPLICATIONS

- Normal Wellhead & X-mas Tree
- Water Injection Wellhead & X-mas Tree
- High Pressure and Anti-sulfide Wellhead & X-mas Tree
- Offshore Wellhead & X-mas Tree

Day 3:

- Double-channel Thermal Recovery Wellhead Equipment
- Off-center Rotation Wellhead & X-mas Tree
- Thermal Recovery Wellhead & X-mas Tree
- Theft Prevention Wellhead & X-mas Tree

Day 4:

WELLHEAD SERVICING

- Visual inspections
- Function and pressure testing of valves, chokes and actuators
- Inflow testing
- Wellhead safety valves and control system
- NDT

Day 5:

- Gauge calibration and replacement
- Seabed inspection
- Lubrication
- Part procurement and replacement

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Fees:

To be advised as per the course location. This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last