BASIC OPERATIONAL TROUBLESHOOTING IN OIL AND GAS INDUSTRY PRE009

COURSE DESCRIPTION

The increase in the size and complexity of facilities of process operations has resulted in maintenance being accepted as an important mainstream function in oil and gas companies.

This course provides the participants with the means to properly operate and support the facilities of process operations in a way based on the good acquaintance with the modern technologies applied in this field. Trouble-shooting of crude oil processing and gas processing units are inclusive.

COURSE GOAL

To enhance the participants' knowledge, skills and abilities necessary to give him some practical exposures to help maintain the facilities of process operations in good operational conditions and cope with the emergency cases of breakdown in crude oil process and gas process units.

COURSE OBJECTIVES

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

- Identify why equipment fails.
- Use failure analysis tools.
- Analyze machinery component failure.
- Define troubleshooting.
- Identify the steps of troubleshooting.
- Understand the process of elimination.
- Perform trouble-shooting of crude oil processing units.
- Perform trouble-shooting of gas processing units.

WHO SHOULD ATTEND

- Operators.
- Supervisors.
- Chemical engineers.
- Shift engineers.

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Introduction to Failure Analysis
    - Why equipment fails
    - Operation related failures
    - Failure analysis tools
    - Machinery component failure analysis
2. Troubleshooting.
    - Definition of troubleshooting.
    - Steps of troubleshooting.
        - Identify the problem.
        - Determine the cause of the problem.
        - Correct the problem.
        - Return the process to service.
    - Sources of information.
    - Condition monitoring technologies
3. The Process of Elimination.
    - Input / output testing.
    - Bracketing.
    - The serial method.
    - Half-splitting method.
    - Troubleshooting Examples.
        - Rotary equipment
        - Bearings in distress
        - Mechanical seal failure
        - Electrical motors, pumps and compressors
        - Periodic lube oil sampling
    - Vibration analysis
    - Flow-induced vibration
    - Optimizing the predictive maintenance program
4. Basic Operational Troubleshooting of Crude Oil/Gas Processing Units
    - Crude Oil/Gas processing
    - Identifying a problem.

- Taking preventive action.
- Determining the cause of the problem.
- Correcting the problem.
- Returning the process to service.