



**MAESTRO**  
CONSULTANTS

**PRODUCTION  
QUALITY  
&  
PROCESS  
TROUBLESHOOTING**

**COURSE OUTLINE 2020**

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## **TRAINING TITLE**

PRODUCTION QUALITY & PROCESS TROUBLESHOOTING

## **VENUE**

Dubai, UAE

## **DURATION**

5 Days

## **DATES**

05 - 09 January 2020

## **PRICE**

US\$4,000 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch buffet daily.

## **TRAINING INTRODUCTION**

Excellent Troubleshooting skills are considered a core competency for 'Best-in-Class' industrial companies. If your company's goals include minimizing downtime then this workshop is a must because it delivers rapid, safe Troubleshooting.

## **TRAINING OBJECTIVES**

**At the end of the course, the attendees will be updated with the following:**

- To Develop a structured approach to troubleshooting and problem solving
- which uses a common terminology and shared understanding
- To point the way to continuous improvement in the way you run your
- processes and make incremental efficiency gains
- To understand the difference between having a techniques manual on the
- bookshelf and actually making it work
- To identify the motivated people who should be the champions of
- troubleshooting and problem solving and who should just follow
- To understand work practices which allow success in troubleshooting and
- problem solving

## **TRAINING AUDIENCE**

The course is designed for Process Engineers, Shift Supervisors, Senior Operators & Operators who require a wider and deeper appreciation troubleshooting and improve their performance and operation

## **TRAINING OUTLINE**

### 1- Troubleshooting Crude Distillation Unit

- Decrease fractionation
- Inadequate steam stripping
- Energy Wasters
- Overhead corrosion
- Preflash Tower
- Tray Capacity
- Reboilers
- Reflux problems

### 2- Troubleshooting of Naphtha hydrodesulphurization

#### DHDs Unit

- 1- Reactor temperature increases
- 2- Reactor quench control
- 3- Reactor pressure drop
- 4- Reactor catalyst bed maldistribution
- 5- Reactor section operation
- 6- Reactor hydrogen partial pressure
- 7- High pressure separator level control and pressure control
- 8- Corrosion problems
- 9- Foaming in high pressure separator/amine scrubber

DMCT/OL/9/18(Rev3Dt:23/9/18)3

### 3-Troubleshooting of continuous catalytic reforming (CCR unit)

Low reactor  $\Delta T$

2- High reactor  $\Delta T$

3- Low Hydrogen production purity

4- Low Reformate yield

5- High Cooking

6- High Reactor  $\Delta P$

7- Low Reactor  $\Delta P$

8- Loss of chloride injection

4- Troubleshooting Amine System

- Dirty Amine
- Reboiler corrosion
- Foaming In scrubber
- loss in Amine Strength
- Reclaimer operation
- Energy Reduction
- Poor Sweetening

5- Troubleshooting Sulfur Recovery Unit ( Cluse Reaction )

- Measuring Conversion
- Finding lost conversion
- Start up problems
- Increased Pressure Drop
- Maximizing plant capacity

6-Problem solving Technique

- Gathering information
- Facts not views
- Analysis Data

## Define the problem

- Root Causes Analysis
- Suggest alternatives
- Select Solution
- Take Action
- Case Study
- Back to Normal operation
- Reporting

## 7-Troubleshooting for Centrifugal Pump and Compressor Problems

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- Centrifugal Pump surge
- Cavitations
- Rough running pump
- Capacity decrease
- Pump, Noise
- Leaking seal

## 8-Trubleshooting of process heater

- Insufficient Draft
- Controlling Air supply
- Energy Saving Ideas
- Excessive Draft
- Insufficient air
- Oil burning
- Hot Tubes
- Expanding Heater Capacity

## 9-Troubleshooting for Vapor liquid separation problems

High liquid level

- Foaming

- Entrainment

10-Case Studies for Gas dehydration using Liquid or Solid Desiccant

## **TRAINING CERTIFICATE**

**MAESTRO CONSULTANTS** Certificate of Completion for delegates who attend and complete the training course

## **METHODOLOGY**

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of “real life” issues in their organizations.

The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.