

Process Plant Start Up, Commissioning &  
Troubleshooting

*Berlin (Germany)*

*14 - 18 April 2025*

UK Traininig

**PARTNER**



# Process Plant Start Up, Commissioning & Troubleshooting

Code: OG28 From: 14 - 18 April 2025 City: Berlin (Germany) Fees: 4900 Pound

## Introduction

There is an alarming trend in the industry to discount the potential contribution of the Technical Operations function to productivity improvement, product quality, and gains in market share. Principles taught in this training session will help you to understand the true nature and different techniques of problem-solving and problem prevention in the operational process environment. Both modules are delivered by leading experts who provide innovative and interesting training sessions. Participants will have access to the latest research in Maintenance Management which forms the basis of the course. 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.

## Course Objectives of Commissioning & Troubleshooting

- How to become a Top Gun Troubleshooter by acquiring new skills
- To develop a structured approach to Troubleshooting and Problem Solving this uses 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 technique manual on the bookshelf and actually making it work
- To identify motivated people who should be the champions of Troubleshooting and Problem Solving and who should just follow
- To understand work practices that allow success in Troubleshooting and Problem Solving through reducing the variability of your process?

## Course Outline of Commissioning & Troubleshooting

### Day 1

#### Introduction and Preparation

- Introduction to Process Plant Start-Up and Commissioning



- Organization and Roles
- Supplementary Topics
- Cost Estimation
- Spare Parts Planning

### Commissioning Strategy

- Commissioning Strategy
- Mechanical Completion and Integrity Checking
- Pre-commissioning and Operational Testing
- Start-up Initial Operation, Testing, and Acceptance

### Day 2

#### Process Plant and Machinery Specific Issues

- Process Plant and Machinery Commissioning
- Instrumentation and Control Systems
- Preparing and Isolating Process Plant

#### Management, Planning, and Control

- The Start-Up and Commissioning Planning and Control
- A Short-cut Approaches to Planning
- Progress Monitoring and Control
- Earned Value Analysis

### Day 3

#### Managing Risks during Commissioning

- Trouble Shooting and Problem Solving
- Risk Management
- Managing Safety and Quality
- Conclusion

#### Concepts

- The nature of process problems affecting performance
- Performance defined in terms of generic variables: Speed, Quality and Cost
- Effort inputs in context - Asset-based or Business Process-based
- Structured approach - The Operations Process redefined
- Configuration; Operation; and Optimization
- Maturity Indexing: Planning, Control, Congruence, Empowerment
- 6 Big Losses, 7 Wastes

### Day 4

#### Tools and Techniques - Practical Experience



- Interactive and Dynamic variable relationships analysis
- Techniques introduction
- Tools introduction
- Problem Analysis
- Practical Use of Tools and Techniques
- Case Studies
- Tools and Techniques - selecting the right one

### People Issues

- Working practices - empowerment or impairment?
- Group dynamics
- Individual motivators
- Developing Troubleshooting and Problem-Solving skills
- Managing change

### Day 5

#### Operator, Maintainer, Designer Interface

- Cross-functional and Teamworking
- Introduction to the Theory of Inventive Problem Solving
- Auditing your process to a dynamic standard
- Effect of Maintenance Operations strategy
- Development of Standards and Key Performance Indicators
- Life Cycle Costing, Design for Operation, Design for Maintenance

### Open Forum

- Revisit Concepts, Tools, and Techniques
- Action Plan



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