



Process Plant Start-up, Commissioning  
& Troubleshooting Seminar





# Process Plant Start-up, Commissioning & Troubleshooting Seminar

## 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 market share gains. The principles taught in this training session will help you understand the true nature of different problem-solving techniques and problem prevention in the operational/process environment.

Excellent Troubleshooting skills are considered a core competency for Best-in-Class industrial companies. Suppose your company's goals include minimizing downtime. This process plant start-up, commissioning, and troubleshooting workshop is necessary because it delivers rapid, safe troubleshooting.

Participants in the process plant start-up, commissioning, and troubleshooting seminar hail from diverse industrial backgrounds, including chemical engineering, mechanical engineering, and process operations.

Engineers seeking to deepen their expertise in plant start-up, commissioning, and troubleshooting find immense value in this seminar. Experienced professionals are eager to enhance their skills and knowledge, and entry-level personnel aiming to grasp foundational concepts are also expected attendees.

The process plant start-up, commissioning, and troubleshooting conference attracts individuals from various sectors, such as oil and gas, petrochemicals, pharmaceuticals, and power generation. They are united by their pursuit of excellence in process plant operations.

## Targeted Groups:

- General Managers are responsible for overseeing the plant start-up and commissioning.
- Operations and Maintenance Managers with direct line responsibility and staff support responsibility for delivering effective Plant Start-up and Commissioning.
- Plant Start-up and Commissioning Managers and Engineers.
- Technical personnel are involved in supporting Plant Start-up and Commissioning activities.
- Supervisors and engineers, both operations and maintenance, are involved or likely to be involved in plant start-up and commissioning situations.
- Production, Maintenance Engineering, and Process Engineering Personnel.

## Conference Objectives:

By the end of this power plant training and commissioning seminar, participants will be able to:

- Become a Top Gun in plant start-up and commissioning procedures by acquiring new troubleshooting skills.
- Develop a structured approach to Troubleshooting and Problem Solving using common terminology and shared understanding.
- Point the way to Continuous Improvement in how they run their processes and make incremental efficiency gains.
- Understand the difference between having a techniques manual on the bookshelf - and making it work.
- Identify the motivated people who should be the champions of Troubleshooting and Problem Solving - and who should follow.
- Understand work practices that allow success in troubleshooting and problem-solving by reducing the variability of your process.

## Targeted Competencies:

By the end of this power plant training and commissioning seminar, target competencies will be able to:

- Understand the critical stages of the commissioning process.
- Balance the technical and management challenges of commissioning.
- Deal with machinery and equipment-specific commissioning issues.
- Managing risks and solving the types of problems likely to occur during commissioning.
- The Operations Process was redefined.
- Maturity Indexing.
- Problem Analysis.
- People Issues.

## Understanding Process Plant Start-up, Commissioning, and Troubleshooting:

The process plant start-up, commissioning, and troubleshooting seminar provides comprehensive training on power plant operations, encompassing plant commissioning, start-up procedures, and troubleshooting techniques.

This process plant start-up, commissioning, and troubleshooting seminar offer invaluable insights into the intricacies of power plant commissioning. It guides participants through the critical phases of plant start-up and commissioning processes. Attendees gain a deep understanding of troubleshooting process plant control systems, enabling them to identify and resolve operational issues effectively.

Whether you're a seasoned professional or new to the field, this process plant start-up, commissioning, and troubleshooting seminar equip you with the essential knowledge and skills to excel in power plant operations. Join us for an immersive learning experience at our next troubleshooting workshop, where industry experts will share practical insights and best practices for optimizing process plant performance.

## **Conference Content:**

### **Unit 1: Introduction to Plant Start-Up and Commissioning Process:**

- Introduction to Process Plant Start-Up and Commissioning.
- Organization and Roles.
- Supplementary Topics.
- Cost Estimation.
- Spare Parts Planning.

### **Unit 2: Commissioning Strategy:**

- Outline the initial commissioning strategy in power plant training.
- Cover the crucial steps of Mechanical Completion and Integrity Checking.
- Pre-commissioning and Operational Testing Activities.
- Initial Operation During the Start-up Power Plant Phase.
- Finalizing with Testing and Acceptance.

### **Unit 3: Process Plant and Machinery-Specific Issues:**

- Dive into specific process plant and machinery commissioning.
- Instrumentation and Control Systems are part of the plant commissioning and start-up process.
- Prepare and Isolating Process Plant procedures.

### **Unit 4: Management, Planning, and Control:**

- Strategies for Planning and Controlling the Start-up and Commissioning Phase.
- Look at different approaches to planning, including short-cut methods.
- Monitor progress and control.
- Earned Value Analysis to Measure Start-up and Commissioning Progress.

### **Unit 5: Managing Risks during Commissioning:**

- Troubleshooting Workshop Concepts for Efficient Plant Start-up Procedures.
- Risk Management considerations.
- Ensure Safety and Quality during the plant start-up and commissioning.

### **Unit 6: Commissioning Concepts:**

- The Nature of Process Problems Affecting Performance.
- Performance is 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 was redefined.
- Configuration, Operation, and Optimization.
- Maturity Indexing: Planning, Control, Congruence, Empowerment.
- 6 Big Losses, 7 Wastes.

## **Unit 7: Tools and Techniques:**

- Interactive and Dynamic Variable Relationships Analysis.
- Techniques introduction.
- Tools introduction.
- Problem Analysis.
- Practical Use of Tools and Techniques.
- Tools and Techniques - Selecting the Right One.

## **Unit 8: People Issues in Plant Commissioning:**

- Examine the empowerment or impairment of working practices.
- Group Dynamics.
- Individual Motivators.
- Develop troubleshooting and problem-solving skills.
- Manage change during plant commissioning.

## **Unit 9: Operator, Maintainer, Designer Interface:**

- Cross-functional and Team Working.
- Introduction to the Theory of Inventive Problem Solving.
- Audit 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.
- Revisit Concepts, Tools, and Techniques.