MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

PROCESS PLANT STARTUP, COMMISSIONING, AND TROUBLESHOOTING

"Ensuring safe, efficient, and reliable process plant operations from startup to steady-state."

Schedule

Date	Venue	Fees
26 – 27 Oct 2026	Online	USD 700 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Startup and commissioning of process plants are critical phases in the plant lifecycle, where operational, safety, and technical challenges converge. Improper commissioning or startup procedures can lead to equipment damage, safety hazards, production delays, and financial losses. Efficient troubleshooting during these phases ensures smooth transition to stable operations while mitigating risks.

This 2-day intensive online training equips participants with practical knowledge and structured approaches for process plant startup, commissioning, and troubleshooting. Through interactive discussions, case studies, and practical examples, participants will learn how to plan, execute, and optimize startup operations, identify potential issues, and resolve operational problems effectively to ensure safe and reliable plant performance.

Objectives

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

- Understand key procedures and safety requirements for process plant startup and commissioning.
- Develop structured startup and commissioning plans.
- Identify, diagnose, and troubleshoot common operational issues.
- Apply best practices for system optimization and performance stabilization.
- Reduce risks, downtime, and operational disruptions during startup.

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Why Attend

- Gain practical knowledge of startup and commissioning processes.
- Improve operational reliability and safety performance.
- Learn to identify and resolve plant operational issues efficiently.
- Enhance compliance with safety and quality standards.
- Build confidence in managing complex process plant operations.

Target Audience

This program is designed for:

- Process, mechanical, and chemical engineers.
- Plant operators, supervisors, and technical staff.
- Maintenance and reliability engineers.
- Health, safety, and environmental (HSE) personnel.
- Project and commissioning managers.

Individual Benefits

Key competencies that will be developed include:

- Ability to plan and execute process plant startups safely and efficiently.
- Skills in troubleshooting mechanical, electrical, and process systems.
- Understanding of startup risk management and safety protocols.
- Improved decision-making and problem-solving in plant operations.
- Increased confidence in commissioning and operational readiness.

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved startup and commissioning efficiency.
- Reduced operational downtime and risk of equipment failure.
- Enhanced safety and regulatory compliance.
- Stronger coordination between engineering, operations, and maintenance teams.
- Optimized plant performance and production readiness.

Instructional Methodology

The course follows a blended online learning approach combining theory with practice:

- Strategy Briefings – Principles of process plant startup, commissioning, and troubleshooting.
- Case Studies – Real-world examples of startup challenges and corrective actions.
- Interactive Discussions – Problem-solving and troubleshooting exercises.
- Practical Workshops – Startup checklists, commissioning planning, and issue resolution scenarios.
- Tools – Templates, checklists, and troubleshooting guides.

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Course Outline

Detailed 2-Day Course Outline

Training Hours: 9:00 AM – 4:00 PM Daily Format: 3–4 Learning Modules | Coffee breaks as scheduled | Lunch Break: 01:00 – 02:00

Day 1: Startup Planning and Execution

Module 1: Introduction to Process Plant Startup (09:00 – 10:30)

- Overview of startup and commissioning processes
- Roles, responsibilities, and safety considerations
- Planning and documentation requirements

Module 2: Commissioning Procedures and Checklists (10:45 – 12:15)

- System pre-commissioning checks
- Equipment and instrumentation verification
- Startup sequencing and operational readiness

Module 3: Process Safety and Risk Management (01:00 – 02:30)

- Hazard identification during startup
- Safety protocols and emergency preparedness
- Preventive measures to avoid incidents

Module 4: Monitoring and Performance Indicators (02:45 – 04:00)

- Key performance metrics during startup
- Monitoring plant behavior and system stability
- Day 1 review and discussion

Day 2: Troubleshooting and Optimization

Module 5: Common Startup Challenges (09:00 – 10:30)

- Mechanical, electrical, and process-related issues
- Typical instrumentation and control problems
- Troubleshooting approach and documentation

Module 6: Troubleshooting Techniques and Root Cause Analysis (10:45 – 12:15)

- Problem identification and diagnosis
- Root cause analysis methodologies
- Corrective action implementation

Module 7: Process Optimization and Stabilization (01:00 – 02:30)

- Adjusting process parameters for steady-state operation
- Fine-tuning control loops and equipment settings
- Ensuring operational efficiency and safety

Module 8: Case Studies, Best Practices, and Course Review (02:45 – 04:00)

- Real-world startup and troubleshooting examples
- Key takeaways, action planning, and Q&A

Certification

Participants will receive a Certificate of Completion in Process Plant Startup, Commissioning, and Troubleshooting, validating their expertise in safely planning, executing, and troubleshooting process plant operations.

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Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation's unique goals.

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