



Process Plant Start-Up Commissioning and Troubleshooting

An Intensive 5 Day Training Course

1 - 5 December 2019

Dubai

Duration: 5 Days

Overview

The aim of this course is to provide participants with a complete up to date overview of the startup and commissioning of process plants. The course will also cover the troubleshooting of the start-up process. Upon the successful completion of this course participant will gain enough skills to anticipate and avoid problems associated with such start-up process. Further, this course will provide participants with a satisfactory understanding of the commissioning strategy, organizational issues, estimation of required resources, CPM planning, mechanical integrity, troubleshooting, start-up operations, technical inspection, instrumentation/control systems, HSE and much other necessary knowledge associated with the petrochemical plant start-up and commissioning. Actual case studies from around the world will be demonstrated to highlight the topics discussed.

Course Objectives:

Upon the successful completion of this, course participants will:

- Have a very good understanding of process plant commissioning including its terminology, requirements, organizational structure & responsibilities.
- Learn & employ how to design project planning & preparation and be able to understand the concept of cost estimation such as budget component, estimation sheets, and inventory cost control.
- Recognize health, safety & environment principle as applied in process plant start-up, commissioning & troubleshooting.
- Review process plant start-up management including the responsibilities, authorities, organizational structure, manpower & staffing.
- Design an effective process plant commissioning strategy and become familiar with mechanical integrity testing & pre-commissioning.
- Understand & carry-out technical inspection & dynamic hydraulic testing and become familiar with the procedure on construction completion.
- Know the concept of machinery commissioning including the types of process equipment plant machinery, preparation of machines & compressor commissioning.

- Improve start-up operations by designing a start-up plan for success, observing initial start-up activities and conducting start-up progress monitoring & control.
- Introduce instrumentation & control systems in process plant start-up and conduct performance trials.
- Review & employ troubleshooting & problem-solving procedures and be able to implement change management using success measures in process plants.

Training Methodology:

- Our methodology based on interactive learning, experiential activities and facilitative training style.
- This programme is an interactive mixture of lecture, discussion groups, team activities and practice on various case studies and video sequences.
- It provides the latest instructional technologies to enable the delegate to learn and apply the skills and techniques used in the programmes.
- Supportive comprehensive course manual enabling practical application and reinforcement.
- Workshops Topics and Handouts, Power Point Presentation for each session.
- Case studies, Best practice examples.
- The course delivers in interactive learning way as 80% practical and workshops and 20 % theoretical background.

Who Should Attend?

This program is designed for:

- Marine terminal staff, marine operation staff, oil movement personnel, custody measurement people, metering engineers and process engineers who have limited direct understanding of Liquid Bulk handling operations and as a base workshop for trainees with little or no experience of Liquid Bulk handling operations.

COURSE CONTENT

Day 1

INTRODUCTION AND PREPARATION

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

COMMISSIONING STRATEGY

- Commissioning Strategy.
- Mechanical Completion & 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.

PROJECT MANAGING THE START-UP/COMMISSIONING

- Work Breakdown Structures.
- The Critical Path Method of Planning and Control.
- Short-Cut Planning Methods.
- Budgeting, Progress and Cost Control.
- Earned Value Analysis.

Day 3

TROUBLESHOOTING, RISK AND HSEQ

- Introduction to Problem Solving and Trouble Shooting.
- Problem Solving in Commissioning and Start Up Situations.
- Managing Risk.
- Managing Health, Safety, Quality and Environment.

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 & 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 Team working.
- 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.

Training Course Program Rates:

PROCSS PLANT START-UP, COMMISSIONING AND TROUBLESHOOTING			
Date	Duration	Location	Rate
1 – 5 December, 2019	5 Days	Dubai - UAE	865 KD

Program Approval

If you wish to move forward with the training program described in this training course, contact us at:

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