

# PROCESS PLANT START- UP COMMISSIONING & TROUBLESHOOTING



**PCE104 Process  
and Chemical  
Engineering**

**COURSE TITLE**

**PROCESS PLANT START-UP COMMISSIONING &  
TROUBLESHOOTING**

**COURSE DATE/VENUE**

08 - 12 February, 2021

London, UK

**COURSE REFERENCE**

PCE104

**COURSE DURATION**

05 Days

**DISCIPLINE**

Process and Chemical Engineering



**COURSE INTRODUCTION**

The initial start-up of any plant, irrespective of size, type, or industry, is a unique occurrence. Therefore, start-up poses some special problems. Lack of experience in dealing with these problems has frequently resulted in prolonged and costly startups. This course will provide guidelines for all those involved in the execution of a project on how to achieve a successful plant start-up. The requirements for start-up oriented thinking at all stages of the project, from engineering to commissioning, will be demonstrated.

The course material covers estimating of start-up costs, personnel requirements, and resources. It defines the vital role of project management and plant personnel in the preparation and planning for successful start-up of any process plant. Emphasis is on effective planning and use of available resources, both material and manpower.

## **COURSE OBJECTIVE**

Upon completion of this course, participants will gain knowledge of the problems and their sources, associated with first-time start-ups. They will have the necessary skills for anticipating and avoiding financial, technical, operational, and organizational problems associated with start-up.

## **COURSE AUDIENCE**

This course is designed for project managers, plant managers, plant supervisors, technical staff, and contractor personnel involved in project execution and plant start-up in any process industry. The greatest benefit arises from the application of these start-up oriented ideas throughout a project, beginning at the conceptual phase. The practical techniques and examples provide useful insights that are valuable at any stage of project execution and preparation for start-up

## **COURSE CONTENT**

### **TERMS AND TOOLS**

- Introduction
- Start-Up Problems
- Discussion
- Start-Up Planning
- Start-Up Cost Prediction
- Minimizing Equipment Problems

### **MANAGEMENT**

- Start-Up Safety and Environmental Issues
- Start-Up Management
- Start-Up Manpower
- Start-Up Leadership
- Discussion

## **IN THE FIELD**

- Construction Inspection
- Construction Completion—the Beginning of Start-Up
- Commissioning—The Heart of Start-Up
- Start-Up Operations
- Discussion

## **START- UP TROUBLESHOOTING**

- Technical Issues
- Solutions
- Implementing Changes

## **START- UP and PROCESS SIMULATION (HANDS-ON DEMONSTRATION)**

## **SHUTDOWN and DECOMMISSIONING**

- Normal Shutdown
- Decommissioning and demolition

## **COURSE CERTIFICATE**

**TRAINIT ACADEMY** will award an internationally recognized certificate(s) for each delegate on completion of training.

## **COURSE FEES**

\$6,150 per Delegate. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

## **COURSE METHODOLOGY**

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will

make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions

