

## Training Title PROCESS PLANT START-UP & SHUT DOWN TRAINING

Training Duration

5 days

#### **Training Venue and Dates**

REF	Process Plant Start- up & Shut		16-20 August		
PE231	Down	5	2021	\$6,500	London, UK

Will be held at any of the 5 star hotels. The exact venue will be informed soon upon finalizing.

## **Training Fees**

• 6,500 US\$ per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch

## **Training** Certificate

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

## TRAINING OVERVIEW

## TRAINING DESCRIPTION

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.

## TRAINING OBJECTIVES

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

DMCT/OL/9/18(Rev3Dt:23/9/18)



## WHO SHOULD ATTEND

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.

#### TRAINING METHODOLOGY:

This training program is lecture-based and customized to the needs of the audience, providing meaningful experience for personnel that work in petroleum plants.

Daily sessions include formal presentation, prepared in the Power Point, interspersed with directed discussions and case study.

In addition to formal lectures and discussions, the delegates will learn by active participation through the use of problem-solving exercises, group discussions, analysis of real-life case studies etc.

All attendees receive a course manual as a reference.

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions, and motivate everybody find the right answers. 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. Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises

# 20% Videos& General Discussions define training.com

#### COURSE OUTLINE

<u>Day 1</u>

Three key issues in Startup- Time cost and Reliability PLANNING

Impor6ance of planning-priorities- involvement of key personnel- OEM—priority vs complexity- Cost vs reliability vs time start up problems- what type-cost vs reliability-New vs old equipment/plant—history and records- procedures-

DMCT/OL/9/18(Rev3Dt:23/9/18)



Human resource management- Type of personnel-leadership Cost Prediction and Minimizing Equipment Problems-Management

**Commissioning and Pre-commissioning Issues** 

Support service estimating ---procurement-subcontractors-ordination-large scale machining-QC- Engineering-s civil construction and erection -testing-laboratory checks-safety-

## <u>Day 2</u>

BEGINNING OF START-UP Commissioning activities over view PERT CPM, MONTE CARLO ANALYSIS and GANTT CHART- brief introduction and their importance-Logic networks- ADM and PDM with examples FLOAT- explained with example

## Day3

Building a master plan and Gantt chart -work break down schedule- resource optimizationplan vs cost- leveling process methodology- work load leveling-

PERT- deviations and calculations-MONTECARLO Analysis for costing

<u>Day 4</u>

## **START-UP ISSUES**

Final check up of plant and machinery- reactors- storage vessels- catalyst-pipingcompressors and pumps and valves- dryers- heat exchangers- waste disposal 7unitslaboratory- instrumentation- alarms and safety

www.definetraining.com

## TROUBLESHOOTING

Source problem- mechanical issues valves and blinds- electrical problems- circuit checksinstrumentation- man made problems- safety regulations-Technical Issues Solutions Implementing Changes

<u>Day 5</u>

## SHUTDOWN and DECOMMISSIONING

DMCT/OL/9/18(Rev3Dt:23/9/18)



Normal Shutdown Decommissioning and demolition

Use of right equipment and procedure and trained personnel- safety alert- worn out and missing component listing- cleaning and storing of unused component as operational procedure-

List for replacement for procurement- corrosion control measures

**RISK and SAFETY ISSUES** 

Note:

Pre & Post Tests will be conducted Case Studies, Group Exercises, Group Discussions, Last Day Review & Assessments will be carried out.



www.definetraining.com

DMCT/OL/9/18(Rev3Dt:23/9/18)

4