



Production Planning and Scheduling in Petroleum Refineries Training

Description

Objectives

- Gain an appreciation of modern planning and scheduling tools that will be useful for planning of crude and product deliveries in their facilities
- Assist in improved operations, optimization, upgrading and modification of existing facilities
- Will result in improved profitability and help in continuous modernization of facilities
- Develop the skills necessary to apply risk assessment techniques

Programme Outline

Application of Planning and Scheduling

- Overview of planning and scheduling in oil refineries
- Refinery Configuration:
 - Hydro skimming Refinery
 - Refineries with Secondary Conversion Process
 - Integrated Refineries
 - Existing & New Refineries
 - Choice of Crude
 - Crude oil scheduling
 - Choice of Processes
 - Capacity utilization of Crudes
 - Severity of Process Operations
 - Cut-points Optimization
 - Facing Upset Situations
 - Tankage Requirement

Improving Product Movements and Releasing Tankages

- Basic Information Required
- Crude Assay

- Intermediate Feed Characteristics
- Yields and Properties
- Different Process Units
- Utilities

Product Blending Rules

- Product Specifications
- New Trends in fuel production
- Environmental Issues
- Crude Cost
- Product Netback

Formulation of Problem

- Refinery Flow-sheets
- Simplified Material Balance
- General Formulation
- Demand Equations
- Product Inventory Control
- Product Quality Control
- Fixed Composition Blend
- Capacity Control/ Constraints
- Availability of Feedstock/ Control

Application to a Refinery Worksheet

- Petroleum Product Movement and Product Exchange
- Marginal Depot Supply and movements
- Commonly Used Methods & Recent Developments
- Mathematical Approach to Solution
- Linear Programming
- Graphic Method
- Vendors Software