

Process Plant Optimisation & Energy Conservation

Date		(\$)Fees	
13 July -17 July 2025	SALALA	3200	Register Now

Why Choose this Training Course?

This course will feature the importance and relevance of the constant need to monitor and adjust Process Plant operation to maintain the optimum mode that produces the most efficient results, consistent with safe and reliable operation.

Plant integrity and reliability is the cornerstone of process plant optimisation. For optimisation benefits to be sustainable, production interruptions must be kept to a minimum which requires effective management of degradation processes that affect equipment and systems and effective inspection and maintenance strategies, plans and methods. Plant optimisation can be an effective way to achieve improved profitability without the large investment associated with building a new plant.

This course will feature:

- Risk Based Integrity Principles
- Process Plant Economics
- Industrial Energy Management Best Practises
- Implications of Plant Optimisation Activities
- Energy Conservation Opportunities

What are the Goals?

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

- Recognize and understand what plant optimisation and energy conservation is
- Apply the business focus and equip them to make sustainable plant profitability
- Appraise the most attractive opportunities to identify energy savings
- Describe the managerial tools needed to effectively optimise plant operations

Who is this Training Course for?

This course will benefit all levels of personnel in a process plant environment. It will enable them to understand the design considerations, construction details and operational parameters associated with process heat exchangers.

This course is suitable to a wide range of process plant professionals but will greatly benefit:

- Process Supervisors
- Plant Operators
- Operations Engineers
- Engineering and Technical personnel involved in improving process plant, petrochemical plant and refinery profitability and energy efficiency

How will this Training Course be Presented?

This course will utilise a variety of proven adult training techniques to ensure maximum understanding, comprehension and retention of the information presented; this includes PowerPoint presentation.

The goals of each participant are discussed to ensure their needs are fulfilled, as far as possible. Questions are encouraged throughout, particularly at the daily wrap up sessions. This provides opportunities for participants to discuss specific issues and, if possible, find appropriate solutions.

The Course Content

Day One: Process Plant Operation, Integrity and Reliability - Overview

- Asset Integrity Management (AIM)
- Plant Integrity and Reliability
- Risk Based Integrity (RBI) Approach
- Operation and Maintenance Impacts on Plant Integrity and Reliability
- Asset Management and Maintenance Management: Process Improvement
- Process Plant Economics

Day Two: Process Plant Optimisation

- Process Control Basics
- Elements of Process Plant Optimisation
- Components Required to Optimise Industrial Processes
- Process or Mathematical Model of Process and Process Variables
- Application of Simulation Technology to Plant and Control
- The Basics of Heat Integration

Day Three: Industrial Energy Management – Energy Efficiency: Good for Business and for the Environment

- Energy Use and in Process Industry
- Energy Management Standard: Details
- Energy Management Standard: Features
- Obstacles for Energy Management Programs

Day Four: Energy Conservation Opportunities

- Energy Audit
- Energy Audit Types

- Benchmarking Energy Intensity and Usage
- Technology Options – New Energy Efficient Technologies
- Technical and Economic Evaluation of Potential Opportunities: Renewable Energy

Day Five: Implications of Plant Optimisation Activities

- Implications of Plant Optimisation Activities
- Impact of Optimisation Activities and Technological Modifications to the Plant
- Technology Licenses
- Impact on Human Resources
- Good Safety - Good Business
- Safety Costs: Costs of Injuries



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