

Training & Consultancy



Managing Efficient Shutdowns & Turnarounds

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Holiday Inn Hotel
Sandton

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Introduction

Planning and managing shutdowns, turnarounds and outages in the process plant environment is a complex and demanding function. If turnarounds are not properly planned, managed and controlled, companies run the risks of serious budget overruns, costly schedule delays and negative impacts on customers.

In this training seminar you will learn:

- How to develop a Shutdown/Turnaround strategy
- Management of all stages of the shutdown process
- Develop the management plan, work plans, resource plans and budget
- How to manage related issues such as risk and safety

Objectives

By the end of this training seminar, delegates will be able to:

- To enhance the company's turnaround management capabilities, and to ensure a team approach in the planning and execution of plant shutdowns and turnarounds
- Provide a comprehensive understanding of effective turnaround management techniques and implementation
- Create awareness of planning methods and an integrated organisational approach in the execution of successful turnarounds
- Incorporate latest developments in turnaround planning and management techniques and emerging industry trends
- Develop an action plan to improve their own turnaround management techniques
- Have a much clearer understanding of their own and every other team members role in ensuring a successful turnaround

Training Methodology

This training course is a combination of dynamic instructor lead topic areas and class discussions. Interactive discussions will allow you to hear and learn best in class applications relating to shutdown and turnaround planning and execution techniques. The training seminar ends in a practical application of theory in a team based case study.

Organisational Impact

The organisation will benefit from this training seminar by:

- Improved motivation of employees that are now more confident about how to go about planning and managing their shutdowns and turnarounds

- Improved shutdown work quality and less rework
- Reduced shutdown durations due to the elimination of unnecessary work and proper scheduling
- Reduced costs due to the smoothing of resource demand and improved resource utilisation
- Fewer logistical delays due to improved planning and communication
- Lower risk due to formal risk management

Personal Impact

The individual will benefit from this training seminar by:

- A greater appreciation of the key role of planning in the shutdown process
- Being able to analyse, compile and communicate the initial scope and estimates with confidence
- A better understanding of how the shutdown/turnaround must support the current objectives of the organisation and plan accordingly
- Being able to recognise shortcomings in the current way of planning and scheduling and being able to actively contribute to improvement
- Becoming a more valued member of the team due to improved knowledge in all aspects of shutdown and turnaround management
- Improved self-esteem, confidence and a fresh outlook from exposure to quality training and also the opportunity to network with people from other organisations that face similar challenges

Who Should Attend?

The training course would undoubtedly be of immense value and interest to:

- Shutdown or turnaround professionals and coordinators
- Planning/scheduling and cost control staff
- Construction superintendents and supervisors
- Operations shutdown/outage coordinators
- Project engineers and contract administrators
- Participation from inspection, materials, safety and maintenance engineering is also encouraged

DAY 1

The Role of Maintenance Shutdowns and Turnarounds in World-class Organisations

- How shutdowns and turnarounds can contribute to the business
- Key success factors
- The three critical paths of shutdowns and turnarounds
- The difference between shutdowns and turnarounds and projects
- Shutdown and turnaround return on investment
- Shutdown and turnaround management self-assessment
- The shutdown and turnaround phases
- Reasons for shutdowns and turnarounds
- Success Factors

Shutdown/Turnaround Preparation

- Risk management
- Justification requirements
- Communications to stakeholders
- Shutdown roles and organisation
- RASCI matrix for shutdown
- Preparation critical success factors
- Identify routine PM to be included in scope
- Identify routine condition based tasks to be performed prior to shutdown and turnaround
- Identify function testing to be performed at conclusion of shutdown and turnaround

DAY 2

Shutdown/Turnaround Preparation continued

- Apply CBM and degradation analysis to create scope visibility
- Apply notification process to manage create scope visibility
- Apply risk-based task selection methods to prioritise and challenge scope
- Review, approve, communicate and freeze the scope
- The critical outcomes of planning
- The 5 Ms of maintenance work quality
- Job analysis and scoping
- Estimating
- Risk and contingency planning
- The use of planning templates
- Work breakdown structure

Shutdown and Turnaround Schedule

- Terms and concepts of scheduling
- Network display methods
- Apply CPM
- Identify resource constraints
- Resource requirements based on CPM
- Resource smoothing

- Resource balancing
- Optimised resource profile
- Shutdown and turnaround budgets
- Assign Shutdown Work - In-house and Contractors
- Types of contractors
- Types of contracts and criteria for selection
- Risks associated with the use of contractors
- Benefits of using contractors on shutdowns
- Staying in control of the contractor

DAY 3

Shutdown and Turnaround, Execution Control and Review

- The shutdown package
- Shutdown quality control
- Shift schedules
- Preparing equipment for the shutdown
- Daily schedules
- Dealing with emergent and additional Work
- Control data
- Status accounting
- Control the Shutdown
- S-curves
- Earned-value
- Shutdown performance indicators
- Shutdown and turnaround review meeting agenda
- Why shutdowns fail
- Problems in shutdowns and their origins
- Start-up and commissioning
- Shutdown close-out reporting and review
- Shutdown closing out report
- Shutdown closing out review
- Overview of computerised tools
- Conclusion