



Arabian Institute For Training

Managing Efficient Shutdowns & Turnarounds

INTRODUCTION

- Planning and managing shutdowns, turnarounds and outages in the process plant environment is a complex and demanding function. They are high-risk events due to the high level of activity taking place in a compressed time frame and added to that the uncertainty associated with the work scope and all the other uncontrollable factors. It is, therefore, no surprise that more and more organisations are reviewing their shutdown and turnaround practices to improve.
- Shutdown/turnaround costs comprise up to 30% or more of annual maintenance budgets, and a delay in a start-up can cause a loss of operating profit that exceeds the cost of the shutdown/turnaround. Planning and executing a turnaround event require many people to be diverted and external resources to be contracted. They can be costly in terms of lost production, so a carefully designed plan can reduce costs. Minimizing the duration of the outage can have a major impact on reducing the cost of lost production. Augmentation of resources available to handle the planning and scheduling and then the execution and assisting in the start-up of the facilities will minimize the out-of-service time.

In this training seminar on **Managing Efficient Shutdowns Turnarounds and Outages**, you will learn:

- A holistic approach to shut down and turnaround planning
- The process, phases and stages of shutdown planning and execution
- The elements and outcomes of each phase of the turnaround
- How to identify and develop plans to reduce risks to quality, costs, and schedule
- How to plan and execute the start-up, close-out and compile the lessons learned

OBJECTIVES

By the end of this **Managing Efficient Shutdowns Turnarounds and Outages** training seminar, delegates will be able to:

- Enhance the company's turnaround management capabilities,
 - Apply a team approach in the planning and execution of turnarounds
 - Gain a deeper understanding of the stages, phases, milestones, outcomes of the overall process
 - Apply improved and more integrated methods for planning and executing successful turnarounds
 - Apply new, proven techniques in turnaround planning and management
 - Develop an action plan to improve their turnaround management techniques
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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 shut down 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 **Managing Efficient Shutdowns Turnarounds and Outages** training seminar by:

- The improved motivation of employees that are now more confident about how to go about planning and to manage their shutdowns and turnarounds
- Improved shutdown work quality and less rework
- Reduced shutdown duration 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

- 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
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WHO SHOULD ATTEND?

- The training course would undoubtedly be of immense value and interest to the individuals in the organisation that participate in the turnaround as well as those that play a supportive role or are stakeholders in the turnaround.
- 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

Course Outline

Introduction to Shutdowns, Turnarounds and Outages (STO)

- How STOs can contribute to the business
- Critical success factors
- The impact of STO strategy on return on investment
- Justification of the scope and timing
- Introduction to the STO life cycle phases
- STO risk management

Pre-Planning and Preparation for Success

- Communications and the role of stakeholders
- Organisation, roles and responsibilities
- Preparation critical success factors
- Programmed work scope identification and selection
- Corrective work scope identification and prioritisation
- Risk-based scope of work

Planning for Safety, Quality and Efficiency

- The critical outcomes of planning
 - The 5Ms of work quality
 - Work survey and analysis
 - Estimating
 - Hazards and contingency planning
 - The use of planning libraries
 - Work breakdown structure
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Scheduling for On-Time Execution and Completion

- Scheduling concepts, terms, and standards
- Scheduling and resourcing trade-off techniques
- Scope-based budgeting
- Managing contracts and contractors

Staying in Control of Quality, Time, and Budget

- Work packages and logistics
- Quality planning and control
- Execution and schedule control
- Execution checkpoints
- Commissioning and start-up



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