Managing Efficient Shutdowns and Turnarounds Training

Description

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 programme 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 course 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

The Contents

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

Day 2 – 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 3 – 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

Day 4 – 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 5 – 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