Techniques for Efficient Shutdowns and Outages

Energy Milestones Corporation

Advancing Professionals to the next level

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Techniques for Efficient Shutdowns and Outages

Overview

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 risk of serious budget overruns, costly schedule delays, and negative impacts on customers.

This training course includes the core techniques of quality planning, critical path scheduling, resource optimisation and the earned value method of progress and cost control. Applying these techniques in an integrated manner, together with work breakdown structures, milestone planning, and contractor management, will produce the outcomes that the organisation needs to ensure its business sustains going forward.

Course Objectives

- Enhance the company's turnaround management capabilities and 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.n
- Create awareness of planning methods and an integrated organisational approach in the execution of successful turnaroun.ds
- Incorporate the latest developments in turnaround planning and management techniques, as well as emerging industry trends.
- Develop an action plan to improve their turnaround management techniques.
- Have a much clearer understanding of their own and every other team member's role in ensuring a successful turnaround

Course Content

1. Introduction to Shutdowns, Turnarounds and Outages

- Introduction and overview of the phases
- The impact of STOs on business performance and costs
- The team, roles and responsibilities matrix
- The STO steering committee and other essential roles
- Risk management

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Course Content

2. Planning and Preparation
- Organisational Resilience and Business Continuity Planning
- Risk Control Techniques
- Using Key Risk Indicators (KRIs)
- Creation of a Risk Register
- Risk Culture
- Risk Management Challenges
- Risk Maturity
- Enterprise Risk Management (ERM)

3. Scheduling and Resourcing
- Work breakdown structures
- Introduction to scheduling
- Critical path scheduling
- Resource scheduling and optimisation
- Schedule and resource optimisation practical
- Work packaging

4. Execution and Control
- Cost budget and control
- Health, safety and environmental control
- Work quality control
- Execution control
- Progress tracking and schedule control

5. Commissioning, Close-out and Review
- S-curves, earned value and performance indicators
- Contract and contractor management
- Commissioning and start-up
- Close-out reporting and review

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Targeted Audience

- Turnaround Managers
- Planners & Schedulers
- Reliability Engineers
- Maintenance Managers & Supervisors
- Project Managers & Engineers
- Operations Managers & Supervisors

Course Methodology

Facilitated by an experienced professional trainer, this training course will be conducted as a highly interactive workshop session. A variety of training methodologies and facilitation techniques will be employed before and during the course, as applicable. These methods aim to enhance individual and group interaction while maximising learning. Some of these methods are:

- Online Pre-post Test
- Colourful Visual Aids
- Gamification
- Self-Assessment Instruments
- Simulations
- Case Studies
- Videos
- Group Exercises & Discussions
- Role plays
- Indoor & Outdoor games