

# € TRAINING

Shutdown Maintenance Management for  
Electric Power Plants



27 - 31 October 2024  
Cairo (Egypt)



# Shutdown Maintenance Management for Electric Power Plants

REF: O1059 DATE: 27 - 31 October 2024 Venue: Cairo (Egypt) - Fee: 4465 Euro

## 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.

## Course Objectives:

At the end of this course, the participants will be able 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 organizational 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

## Targeted Audience:

This program is intended for all relevant Professionals, Consultants, and Managers. Participants attending the program take away a good multi-discipline understanding of the relevant issues. This training program helps the participant become productive quickly and help build a related Knowledge Framework that will help him identify, understand, classify, and remember the relevant on the job learning and experiences.

## Course Outlines:

### Unit 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

### Unit 2: Shutdown/Turnaround Preparation:

- Risk management

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

### Unit 3: Shutdown/Turnaround Preparation Continued:

- Apply CBM and degradation analysis to create scope visibility
- Apply notification process to manage to create scope visibility
- Apply risk-based task selection methods to prioritize 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

### Unit 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
- Optimized 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

### Unit 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 the review
- Overview of computerized tools
- Conclusion