

Professional Engineering Services

Planning And Managing Shutdown and Turnaround

Course Duration 5 Days

Course Contents:

Part I:

Introduction to Shutdown & Turnarounds:

- Introduction
- The Turnaround in a Business Context
- Cost of the Event
- Drain of Resources
- Hazard to Plant Reliability
- Strategy
- Turnaround Philosophy
- Financial Concerns
- Current Performance
- Plant Turnaround History
- Corporate knowledge
- Project and maintenance Work Scope
- Organization
- An Engineering Perspective
- Integration
- The Phases of a Turnaround:
 - Initiation Phase
 - Preparation Phase
 - Execution Phase
 - Termination Phase
- Conclusion and discussion.

Part I:

Phase One: Initiating the Turnaround:

- Initiating the Turnaround
- The Steering Group
- Organisation ,Roles and Turnaround Leadership
- The Purpose of the Steering Group
- The Methodology
- Key Event Program
- Turnaround Preparation Program
- The Turnaround Manager
- Leadership Style
- Selecting the turnaround management (The Preparation Team)
- Shutdown Planning/Preparation Team

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- Preparation Coordinator
- Planning Coordinator
- Planning Team
- Logistic Coordinator and Logistic Team
- Gathering Basic Data:
- Personal Contacts
 - ✚ Formal Meetings
 - ✚ Documentation
- The Critical Path Method
- The Greenfield Plant Shutdown
- Workshop Using MS-Project
- Skills Practice Exercise
- Short-Cut Approach to Planning

Part III:

Phase Two: Preparation of the Turnaround:

- Validating The Scope of Work
- Pre-shutdown Work
- Contractor Management
- The Turnaround Organization
- Planning the Turnaround
- Approaches to work Estimating
- Safety Plan
- The Quality Plan
- Effective Communication

Part IV:

Phase Three: Executing the Turnaround:

- Process Shutdown and Start Up
- Preparing Plant for Maintenance Work
 - ✚ Isolation of process Equipment
 - ✚ Isolation of Electrical Equipment
 - ✚ Removal of Hazardous Substances
- Hydro-testing Pressure Vessels

Part V:

Phase Four: Terminating the Turnaround:

- Shutdown Progress Monitoring and Control:
 - ✚ Budgeting, Cost and Progress Control
 - ✚ Earned Value Analysis
 - ✚ Earned Hours Reporting
 - ✚ Key Performance Indicators (KPIs)

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- Finalization and Post-Audit
- Organizational Learning and Improvement
- Post-Audit Report
- Typical Contents of Post Audit Report
- Turnaround Performance Review
- The Greenfield Plant Turnaround
- Conclusion

