



ME189: Process Plant Shutdown, Turnaround & Troubleshooting



Training Description:

The process industry is losing over half a billion dollars of profits a year due to poor turnaround results and missed opportunities. The majority of turnarounds lacked strategic focus and front-end planning. In addition, turnaround teams lacked leadership and were understaffed. The major negative factor is the growing gap between higher turnaround performance expectations and rapidly shrinking qualified resources to manage the turnarounds. As a result, the planning effort not only starts late, but it is also ineffective, and typically does not contribute in the turnaround success.

This intensive training course is designed to bridge the abovementioned gap. It will provide turnaround managers and engineers with enough knowledge and skills to understand the purpose of the turnaround, to properly plan and manage the turnaround, and to achieve exponential results of their turnaround project. The course will teach participants how to establish a systematic turnaround management processes and procedures that incorporate the best turnaround practices, planning techniques and execution strategies.

Turnaround results have a long-term effect on the facility's operational reliability and it dictates the plant's operational efficiency and business survival in the competitive global market. The turnaround performance can be dramatically improved if companies focus on key issues such as strategic planning, selection of qualified contractors, synergistic and innovative organizations, and tactical initiative to improve field productivity.

The course will cover the emerging industry trends, turnaround benchmarking and the challenges faced by plant executives to consistently achieve pacesetter results on plant shutdowns and turnarounds. We will teach you how to fairly balance your business, marketing and financial goals with your plant needs for mechanical integrity and operational reliability. We will show you how to focus on risk areas, early work scope definition, high-performance initiatives, the assignment of qualified staff and the best practice contracting strategy. Upon the completion of this course, you will have good knowledge to perform World-Class turn arounds.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Apply systematic techniques in the shutdown, turnaround and troubleshooting of process plants
- ✓ Implement the special needs of time constrained projects (24/7)
- ✓ Identify the work to be accomplished for the shutdown project
- ✓ Plan to meet deadlines & complete turnaround projects on time within budget
- ✓ Apply shutdown best practices
- ✓ Plan, lead, organize, control and co-ordinate shutdown type projects
- ✓ Schedule the work effectively
- ✓ Manage resources effectively
- ✓ Implement feedback systems
- ✓ Identify risks and manage these effectively
- ✓ Reporting and documenting the shutdown activity
- ✓ Recognize the use of software packages





Training Designed for:

This course is intended for those involved directly or indirectly in the plant shutdown and turnaround operations. This includes maintenance and project staff such as managers, engineers, planners, supervisors and other technical people.

Training Program:

DAY ONE:

- ❖ **PRE-TEST**
- ❖ **Course Introduction and Fundamentals of Shutdowns**
 - Course Expectations
 - Course Outline
 - Shutdowns and Project Management – Unique Features
- ❖ **Structure of the Shutdown**
 - Compiling and Defining the Scope of Work and Budget
 - Operations & Maintenance Inputs
 - Kickoff Meeting Agenda - Structured Group Interviews
 - Identifying Pre-Shutdown and Start-up Work
 - Validating the Work
 - Planning Lead Time – Planning Phase is Actually a Project on its Own
 - Project Work Hours and Shifts
 - Project Charter and Scope Control
 - Risks Assessment
 - Quality Control Requirements
 - Checklists and Action Item Lists
 - Class Task
- ❖ **Planning Processes and their Application**
 - The Planning Tasks Cycle
 - Work Breakdown Structure, Organization Breakdown Structure
 - Activity Lists
 - Activity Information Determination- Duration, Resources, Costs
 - Dealing with Uncertainty in Job Estimates
 - Class Tasks
- ❖ **Recap**

DAY TWO:

- ❖ **Base-line Plan, with Budget Approval**
 - Milestones and Constraints
 - Network and Dependencies
 - Gantt Charts – Master and Daily Schedules
 - Resource Planning
 - Cash Requirement and Flow Planning
 - Confirming the Shutdown Budget
 - Class Tasks





❖ Organising and People Management

- Organising the Shutdown Project Team–Selecting the Manager
- Organising Contracts and Procurement
- Tracking Shutdown Materials
- Coordinating Support Equipment
- Organising the Shutting Down Meeting
- Organising on Site Logistics
- Organising Contract work – Shifts, Labour and Technical Support
- Organising Tasks
- Class Tasks

❖ Recap

DAY THREE:

❖ Organising and People Management

- Work Documentation Needed and its Organisation
- Organising the Store and Procurement Processes (Before and During)
- Organising Progress Feedback
- Organising Start-up and Handover Work Packages
- Class Tasks
- Course Review Exercises

❖ Execution and Feedback

- Feedback Methods and Documentation
- Meetings
- Materials Management
- Accounting – Time and Materials Systems for Feedback
- Timeous Staging
- Quality, Safety and Activity Completion
- Class Tasks
- Accounting – Time and Materials Systems for Feedback
- Timeous Staging
- Tracking Shutdown Materials
- Coordinating Support Equipment
- Quality, Safety and Activity Completion
- Class Tasks

❖ Recap

DAY FOUR:

❖ Control of Shutdown

- Work Methods of Control
- Time Control from Feedback
- Money Control from Feedback
- Class Tasks
- Scope Change and Impact Control
- Project Acceleration
- Contractor Controls and Safety Control





❖ **Starting up and Handover**

- Schedules and Checklists
- Completion Sign off Certificates
- Payment Certificates (as Applicable)
- Accounting Reports
- Payment of Contractors

❖ **Recap**

DAY FIVE:

❖ **Use of Computers and Software**

- Problems with Using Computer Systems
- Spreadsheets
- Procurement Systems – e.g. SAP

❖ **Shutdown Groups Workshop**

- Briefing and Group Selection
- Shutdown Planning in Groups Per Briefing
- Shutdown Planning in Groups Per Briefing
- Shutdown Plan Presentation

❖ **Course Conclusion**

❖ **POST-TEST and EVALUATION**

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Please note that the above topics can be amended as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant’s manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon - of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.





Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

For training registrations or in-house enquiries, please contact:

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Training & Career Development Department

