

# Shutdown/Turnaround/Outages Apply Best Practices

**Course Overview:** This three-day training program offers a thorough overview of the Shutdown/Turnaround/Outage (STO) process. To make the best business decisions in preparation, it is important to understand what stakeholder demands are. The most successful STO's are those projects that thoroughly understand what influences the organization. These influences are usually a mixture of both internal and external factors.

With the combined impact both positively and negatively on the business and operations, STO's gets the attention of high-level management. In some instances, the value of lost production potentially has greater consequences financially than the actual direct costs of the shutdown.

This highly interactive course is designed to provide a training environment that maximizes the interaction between attendees and the facilitator. Attendees will complete and review daily exercises designed to enhance and reinforce knowledge retention and provide the best opportunity for planning, scheduling, and executing a successful STO. **Course Length:** 3 days (5 hours each session)

# **Course Objectives:**

- Define work scope and responsibilities for all personnel involved in each stage of the STO
- Improve your plant reliability and equipment availability with an effective STO strategy
- Learn how selecting work through a prioritization system can better control future maintenance costs
- **Minimize** the possibility of liability by improving plant safety
- Evaluate the management of equipment lifecycle through effective STOs

#### **Target Audience:**

Shutdown / Turnaround / Outage (STO) Management was designed specifically for individuals participating in or aspiring to the following:

- Mechanical, Electrical, Production or Project Engineers
- Procurement
- SHE Advisors
- Construction/Contractor Managers and Supervisors
- Testing and Commission Engineers
- Maintenance Managers, Supervisors, Planners & Schedulers
- Key Operations Supervisors
- Materials Management Managers/Supervisors
- CMMS Administrator or Key Users
- Key Maintenance Support Assistants
- Maintenance Engineers (Functional and Reliability)



### **By Job Titles:**

- Ops Leadership
- Managers/Supervisors/Leadership
- Reliability Engineers
- Maintenance Leads/Supervisors
- Financial
- Operations Supervisors
- CI Leaders
- Maintenance & Reliability Professionals

#### By Sector:

Manufacturing
Oil & Gas
Utilities & Power Gen
Petrochemical/Chemical
Pharma
Food & Beverage

#### **Course Outline:**

#### **Day 1:**

# **Chapter 1: Turnaround Management Intro**

- Overview
- Plant Shutdown vs Plant Turnaround
- Turnaround Philosophy
- TAR Management Systems

# **Chapter 2: The Planning Process**

- Strategic Planning
- Organization
- Work Validation & Preparation
- Planning & Scheduling
- Execution

# **Chapter 3: Turnaround Team**

- Roles & Responsibilities
- Common Responsibilities
- Responsibility Details

# **Chapter 4: TARs Evaluation Process**

- Master Work List
- Comprehensive Work Packages
- Estimating
- Master Schedule Phase I & II

#### **Chapter 5: Risk & Work Execution**

- Risks & Prioritizing
- Work Execution Plan
- Daily Schedules



### **Chapter 6: Logistics Plan**

- Overview
- Details
- Materials & Equipment

# **Chapter 7: The Contractor Management Plan**

- Use of Contractors
- Manage the Bid Stage & Award
- Effective Mobilization

# **Chapter 8: HSE in Turnarounds**

- Managing TARs Safely
- Pre-Start-up Safety Checklist & Sign-off

# **Chapter 9: Critical Path Management**

- Key Concepts of Project Management
- Critical Path Analysis
- Pert & Gantt Charts
- Three Phases of CPM
- Float

#### **Chapter 10: Close-Out & Review**

- Overview
- Records & Files
- After Action Review (AAR)

# **Chapter 11: Key Performance Indicators**

- TAR KPIs
- Turnaround Management System Checklist
- Bringing it All Home!
- Exercise/Assessment



#### **Testimonials**

- Andy's explanations and illustrations are 100% relevant to our environment and he makes it so simple to understand!
  - o Maintenance Manager Food & Beverage Industry
- Andy's presentation skills and examples were rich in content and relatable!
  - Team Lead Transportation Industry
- Learning from the most experienced instructor, delivering decades of not only theory but application was a joy!
  - o Director of Maintenance Oil & Gas Industry
- Andy's presentation skills and relating it to real life examples was excellent and made the sessions enjoyable!
  - o Division Manager Food & Beverage Industry
- If I have another opportunity to attend one of Andy's trainings, I will most definitely!
  - Operations Manager Water Utility Industry
- Andy challenged us and his presentation style is excellent!
  - Plant Manager Consumer Goods Industry
- The training was well defined. The content was related to our current state, and course was interesting, and interactive. The instructor was knowledgeable and has great experience and covered all our questions in detail and used examples to reinforce!
  - *VP of Manufacturing Manufacturing Industry*
- The course instructor was knowledgeable and responsive to questions. Highly recommend for teaching and consulting!
  - Head of Asset Management & Integrity Oil & Gas Industry