
Shutdown and Turnaround Leadership: Scope Freeze, Readiness, Critical Path and Restart Training

1 – 5 March 2027
New York





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Programme Summary

Shutdown and turnaround leadership is the subject of this one-week training course for turnaround, maintenance and operations managers, ending in a shutdown readiness and control pack for one planned event. A planned plant shutdown concentrates months of preparation, many contractors and a revenue gap into a few weeks, so weak scope or late readiness is costly. The programme moves from principles, through diagnosis of scope and constraints, to the design of schedule and control routines, then applies them to one event. Mars Training Centre UK delivers this shutdown and turnaround leadership programme for process, refining and power operators.

The Business Case

A shutdown that overruns delays restart, erodes production and exposes people to compressed, high-risk work. Most overruns trace back to uncontrolled scope growth, incomplete work packages and unchecked materials. Leaders who test readiness early and control change during execution protect the restart date and the safety of the workforce.

- Schedule Adherence: Improves as scope is frozen and the critical path is tested against constraints.
- Emergent Work Growth: Falls as new work passes a defined approval route.
- Restart Reliability: Rises as handback and restart checks are agreed before the event.

Principles and Evidence Base

- Critical path method scheduling: It identifies the activity chain that sets the shutdown duration and frames the schedule tests in Sessions 3 and 5.
- Stage-gate readiness reviews: They set the scope freeze and readiness gates examined in Sessions 1, 2 and 5.
- ISO 55001 asset management: It guides the asset risk criteria used to challenge scope in Sessions 1 and 2.
- ISO 45001 occupational health and safety management: It frames the contractor safety interface planned in Session 3.

Intended Participants

- Turnaround managers who own scope, schedule and cost for a planned event.
- Maintenance managers who supply work lists, planning and craft resources.
- Operations managers who prepare units for shutdown and accept them back.
- Contract and package owners who manage contractors during the event.



The programme serves refineries, petrochemical plants, power stations and process manufacturers, and suits mixed groups.

Learning Outcomes

1. Participants will be able to evaluate a shutdown work list against scope challenge criteria.
2. Participants will be able to diagnose readiness gaps in materials, resources and work packages.
3. Participants will be able to construct a critical path schedule that reflects real constraints.
4. Participants will be able to justify a scope freeze and a change control route.
5. Participants will be able to prioritise execution control routines for daily use.
6. Participants will be able to design a shutdown readiness and control pack for one planned event.

Programme Structure

Day 1: Shutdown and Turnaround Leadership Principles

What makes a shutdown succeed or overrun, and who decides what goes into it?

- Turnaround Lifecycle Phase Map
- ISO 55001 Asset Risk Criteria
- Scope Challenge Criteria Matrix
- Stage-Gate Readiness Review Model
- Roles and Decision Rights Chart

Day 2: Diagnosing Scope, Readiness and Constraints

Is the work list justified, and can the event be resourced as planned?

- Work List Challenge Review
- Long-Lead Item and Material Status Tracker
- Resource and Contractor Capacity Check
- Shutdown Risk Register
- Lessons Learned Review from Past Events

Day 3: Designing the Schedule, Work Packages and Controls

How are work packages, the critical path and change control set up before the event?

- Work Package Content Checklist
- Critical Path Method Network
- Scope Freeze and Change Control Procedure
- ISO 45001 Contractor Safety Interface Plan
- Daily Progress and Cost Report Format



Day 4: Designing Execution Control, Close-Out and Restart

Which routines keep the event on its critical path and bring the unit back safely?

- Daily Coordination Meeting Pack
- Emergent Work Approval Route
- Isolation and Handback Sequence Plan
- Restart Readiness Checklist
- Close-Out Report and Lessons Capture Form

Day 5: Applying Shutdown and Turnaround Leadership to One Event

Is the readiness and control pack ready for the steering group?

- Applying the Session 2 Challenge to the Chosen Work List
- Testing the Session 3 Critical Path against Constraints
- Walking Through the Session 4 Control Routines
- Rehearsing the Readiness Gate Review
- Completing the Shutdown Readiness and Control Pack

Methodology

The programme uses case analysis built on anonymised work lists, schedules and close-out reports from refining, power and process plants. Participants challenge scope, test schedules and play steering group roles in small groups, with feedback from peers and the facilitator.

- Suggested activity: Challenging a sample work list and removing items that fail the criteria.
- Suggested activity: Finding the critical path in a sample network and testing it against a resource limit.
- Suggested activity: Running a mock readiness gate review with an incomplete package.

Capstone Output

Each participant completes a shutdown readiness and control pack for one planned event. It holds a scope challenge result, a readiness gap list, a critical path summary, a change control route and a restart checklist. The pack is used to brief the steering group and agree the scope freeze.

Frequently Asked Questions

Is shutdown and turnaround leadership suitable for managers who have not led a turnaround before?

Yes. Shutdown and turnaround leadership starts from the event lifecycle and assumes responsibility for maintenance, operations or contractor work, not prior turnaround command.



Which references does shutdown and turnaround leadership rest on?

Shutdown and turnaround leadership rests on critical path method scheduling, stage-gate readiness reviews, ISO 55001 for asset risk and ISO 45001 for contractor safety.

How is the pack from shutdown and turnaround leadership used at work?

You use the readiness and control pack to brief the steering group, agree the scope freeze and set the daily routines for the event.

How does shutdown and turnaround leadership differ from a programme on routine maintenance planning?

Shutdown and turnaround leadership covers one concentrated event with a frozen scope and a fixed restart date, while routine maintenance planning schedules continuing work across the year.