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COURSE BROCHURE

Critical Activity Control in Planned Plant Shutdowns Training Course

18 – 22 January 2027
Singapore

Critical Activity Control in Planned Plant Shutdowns Training Course

Ref: 1305_48994 **Date:** 18 – 22 January 2027 **Location:** Singapore **Fees:** 9300 GBP

Critical Activity Control in Planned Plant Shutdowns is a 1-week training course for shutdown planners, turnaround coordinators and operations supervisors who control isolation, entry and restart tasks; participants leave with a shutdown execution plan with risk controls for each critical activity. Outages compress hazardous work into days, so a few critical tasks decide duration and safety. Jupiter Prime Training delivers Critical Activity Control in Planned Plant Shutdowns for plant teams.

Why Critical Activity Control in Planned Plant Shutdowns Matters Now

Ageing process units, leaner maintenance crews and heavier contractor reliance all push more hazardous work into shorter outage windows. A plant that controls its critical tasks finishes on the planned critical path and restarts without leaks or trips, while one that does not faces extensions and incidents. The course draws on ISO 55001 for asset management and EN 13306 for maintenance terminology, applied to the shutdown window.

Who Gains Most from Critical Activity Control in Planned Plant Shutdowns

- Staff who define outage scope, freeze worklists and approve late additions
- Staff who build the shutdown schedule and protect its critical path
- Staff who issue permits, verify isolations and sign off blinds and locks
- Staff who supervise contractor crews on hot work and confined-space entry
- Staff who lead leak testing, handover and staged unit restart

A refinery, petrochemical or power plant outage cell gains most when planners, operations and maintenance supervisors attend together.

Critical Activity Control in Planned Plant Shutdowns Capabilities

Participants learn to separate the handful of tasks that can stop a restart from the bulk of routine jobs, and to set hold points around them.

- Assess which outage tasks are critical using consequence and duration criteria — scope freeze decision
- Design isolation and de-isolation sequences with verified blind lists — permit authorities
- Calculate float and resource loading on the shutdown critical path — outage manager
- Specify hold points and inspection witness steps for critical jobs — quality and inspection leads
- Build a mechanical completion and pre-start-up checklist — operations superintendent
- Communicate daily critical activity status and emergent work impact — plant leadership

Key Critical Activity Control in Planned Plant Shutdowns Terms

- Critical activity — an outage task whose failure or delay would extend the shutdown or create a major hazard at restart.
- Scope freeze — the agreed date after which new outage work needs formal approval and impact assessment.
- Positive isolation — separation of equipment from energy or process sources by blinds, spools or air gaps rather than valves alone.
- Blind list — a register of every blind installed for the outage, with location, size, tag and removal sign-off.
- Mechanical completion — the stage at which repaired equipment is physically finished, tested and ready for operations checks.
- Pre-start-up safety review — a structured check that equipment, procedures and people are ready before process fluids return.

Critical Activity Control in Planned Plant Shutdowns Day by Day

Day 1: Outage Context and Critical Task Selection

- Outage Drivers and Run Length Targets — Timing of the Shutdown Window
- Scope Challenge Meetings — Which Jobs Truly Need a Shutdown
- Criticality Screening Matrix — Ranking Tasks by Consequence and Duration
- Scope Freeze and Late Work Approval — Containing Emergent Additions
- ISO 55001 Asset Plans — Linking Outage Scope to Asset Strategy

Day 2: Sequencing and Critical Path Control

- Work Breakdown by Unit and Equipment — Structure of the Outage Schedule
- Critical Path and Float Analysis — Where Delay Extends the Shutdown
- Resource Levelling for Specialist Crews — Crane, Welding and Inspection Clashes
- Shift Handover Logs — Continuity of Round-the-Clock Work
- Daily Progress Measurement — Recovery Actions for Slipping Jobs

Day 3: Isolation, Line Breaking and Entry

- Shutdown and Decontamination Sequence — Safe Release of Process Fluids
- Positive Isolation and Blind Lists — Verification Before Line Breaking
- Lockout Tagout Boards — Control of Multiple Energy Sources
- Confined Space Entry and Gas Testing — Permission to Enter Vessels
- Simultaneous Operations Matrix — Conflicts Between Adjacent Hazardous Jobs

Day 4: Completion, Start-up and Commissioning

- Hold Points and Witness Inspections — Acceptance of Critical Repairs
- Mechanical Completion Punch Lists — Readiness to Hand Back Equipment
- Blind Removal and Leak Testing — Tightness Before Process Fluids Return
- Pre-Start-up Safety Review — Readiness of Equipment, Procedures and People
- Staged Restart and Commissioning Checks — Stable Operation After the Outage

Day 5: Practising the Shutdown Execution Plan

- Refinery Furnace Outage Case — Applying Criticality Screening and Scope Freeze
- Power Plant Boiler Outage Case — Applying Critical Path Recovery
- Isolation Plan Walkthrough — Applying Blind Lists and Entry Controls
- Lessons Learned Register — Feeding the Next Outage Cycle
- Shutdown Execution Plan — Risk Controls for Each Critical Activity

Applying Critical Activity Control in Planned Plant Shutdowns After the Course

- Run a criticality screening session on the next outage worklist and publish the ranked list of critical tasks with owners.
- Audit the current blind list and isolation sequence for one unit against the verification steps practised on the course.

Critical Activity Control in Planned Plant Shutdowns Questions FAQ

What is Critical Activity Control in Planned Plant Shutdowns and why does it matter now?

It is the practice of finding and tightly controlling the few outage tasks that decide duration and restart safety. It matters now because outage windows are shorter, crews leaner and contractor reliance heavier.

Which roles gain most from Critical Activity Control in Planned Plant Shutdowns?

Shutdown planners, turnaround coordinators and operations supervisors gain most. Permit authorities and contractor supervisors handling isolation and entry also benefit.

How does Critical Activity Control in Planned Plant Shutdowns differ from a general turnaround management course?

It focuses on task-level control rather than the full turnaround lifecycle. It concentrates on critical task selection, isolation, hold points and staged restart within the outage window.

What do you bring back from Critical Activity Control in Planned Plant Shutdowns?

You bring back a shutdown execution plan for a real or sample outage. It lists the critical activities, their isolation and hold-point controls, critical path float and restart checks.

Critical Activity Control in Planned Plant Shutdowns: The Way Forward

The shutdown execution plan first informs the scope freeze decision, showing which tasks earn a place in the outage window and which controls they need. Planners, permit authorities and operations supervisors use it daily during the outage. After the first restart, revisit the criticality ranking and the hold points.