Management Of Change Training for Petrochemical Plants

Service Objectives

Focused, practical upskilling to implement a robust, auditable MOC workflow in live petrochemical environments.

- Provide a step-by-step method to control modification risk across process, mechanical, electrical, instrumentation, software, and organisational domains.
- Define what constitutes a change; differentiate permanent, temporary, and emergency changes; trigger the right level of review.
- Select proportionate risk reviews: screening, What-If, HAZOP for modifications, and LOPA tie-ins.
- Align with IEC 61511 functional safety lifecycle for SIFs, alarms, interlocks, proof-test implications, and SRS updates.
- Build complete MOC packs: PSI (P&IDs, cause-and-effect matrices, datasheets), approvals, action tracking, competency needs, and as-built updates in CMMS/DMS.
- Operationalise PSSR checklists, ensure robust handover, and embed KPIs, audit trails, and continuous improvement.

> Tailored to petrochemical units (olefins crackers, polymerisation trains, aromatics, reformers, utilities, storage terminals, tank farms). Aligned with CCPS MOC guidance and IEC 61511, and mapped to UAE regulatory expectations.

Who This Service Is For

- UAE petrochemical operators across integrated units: olefins, polymer plants, aromatics, reformers, utilities, storage terminals, and tank farms.
- Process engineers, maintenance and reliability personnel, I&C engineers updating SIS logic, project teams executing brownfield tie-ins.
- HSE/PSM coordinators responsible for traceability, risk evaluation, documentation control, and closure.
- Shift supervisors, control room operators, and permit-to-work coordinators managing temporary changes, overrides, or bypasses.
- Plant and operations managers and compliance officers setting risk tolerability, resource commitments, and KPIs.
- Embedded contractors during turnarounds and shutdowns introducing short-duration modifications.

Duration & Process Overview

- Executive/Policy Briefing: 1 day. Sets MOC policy, KPIs, approval authority, and resourcing.

- Practitioner Course: 2 days (split possible). Hands-on workflow, documentation, and risk tools.
- Immersive + PSSR Simulation: 3 days. Live-site walkdowns, mock MOC pack, PSSR and handover exercise.
- Flexible delivery: on-site, virtual or hybrid; split schedules and pre-work eLearning to fit shifts and turnaround windows.

Methodology

A practical, evidence-led approach from change initiation to PSSR closure, anchored in petrochemical realities.

Phase	Objective	Deliverable
Pre-course Needs Analysis	Understand assets, procedures, and documentation under NDA.	Tailored agenda and site-specific scenarios.
MOC Fundamentals & Case Studies	Define change types; learn from petrochemical incidents and near misses.	Reference examples for crackers, polymer units, and tank farms.
Risk Screening & Review Selection	Apply trigger criteria; choose What-If, HAZOP for modifications, LOPA tie-ins; consider human factors.	Proportionate review plan with safeguards and impairment checks.
Documentation & PSI Control	Manage P&IDs, datasheets, line lists, hazardous area classification, C&E/interlock matrices; control redlines and as-builts.	Updated records reconciled in DMS/CMMS.
Functional Safety & Alarms (IEC 61511)	Assess SIF impacts, proof-test intervals, alarm rationalization; control logic, setpoints, and bypasses with restoration plans.	SRS updates and integrated change controls.
Temporary Changes & Turnarounds	Differentiate emergency workarounds from controlled temporary MOC; set expiry and restoration.	Documented temporary MOC with clear reversion plans.
PSSR, Handover & Closure	Verify readiness for service; align isolations and permits; confirm competence and startup controls.	PSSR checklists, field verification records, and closure evidence.
Assessment & Certification	Quizzes and a realistic change scenario building an end-to-end MOC pack.	Assessment records and NPM certificate of completion.
Oversight & Improvement	Establish KPIs, audit trails, and learning capture to prevent incident precursors.	KPI set and audit-ready documentation practices.