Management Of Change Training for LNG Facilities

Service Objectives

Focused on LNG trains, cryogenic storage, BOG systems, utilities, and marine loading interfaces.

- Embed a practical, defensible MOC discipline that reduces process safety exposure during change.
- Translate LNG hazards (cryogenic integrity, dispersion, ignition control) into concrete MOC evaluation steps.
- Keep PSI accurate and current (P&IDs, ESD matrices, cause-and-effect, SIL data, hazardous area classification).
- Tighten control of temporary changes (bypasses, overrides, setpoints) with duration limits and restoration to design intent.
- Strengthen cross-functional reviews, PSSR readiness, and verification of safeguards (ESD/SIS per IEC 61511).
- Produce traceable, audit-ready records aligned to NFPA 59A, UAE regulatory expectations, and corporate standards.

> LNG-specific and standards-aligned: NFPA 59A and IEC 61511, with integration to UAE regulatory interfaces (OSHAD, ADNOC Codes of Practice, Civil Defence, and port authority requirements).

Who This Service Is For

- LNG plant managers, operations and maintenance leads, shift supervisors, and control room engineers.
- Instrumentation and electrical specialists managing alarms, interlocks, and setpoint modifications.
- Project/EPC engineers and turnaround planners integrating brownfield tie-ins and temporary changes.
- HSE managers, compliance officers, MOC approvers and focal points overseeing risk ranking and approvals.
- Marine/loading teams handling loading arm upgrades, ESD interlocks, and berth system modifications.
- Stakeholders initiating, reviewing, approving, or executing changes on liquefaction trains, BOG systems, tanks, and jetties.

Duration & Process Overview

- Standard practitioner delivery: 2 days (approximately 14–16 hours) for supervisors, engineers, and control room personnel.
- Extended option: 3 days for higher-risk sites, adding deeper SIS/ESD, marine loading scenarios, and PSSR drills.
- Executive/Approver session: 1 day focused on leadership alignment, risk appetite, and KPI governance.

- Delivery formats: on-site or hybrid (virtual + on-site case workshops); pre-training scoping with your MOC focal point; optional field walkdowns where safe and permitted.

> Assessment combines module knowledge checks and a final applied LNG case (e.g., loading arm ESD setpoints or BOG re-liquefaction skid integration). NPM issues a certificate of completion; statutory or role-based competency sign-offs remain the client's responsibility.

Methodology

1. MOC Foundations

- Change types, roles, approvals; scope definition and risk ranking.

2. LNG Hazard Context

- Cryogenic exposures, dispersion and ignition control; consequence awareness.

3. Safeguards Integrity

- ESD/SIS per IEC 61511, alarms and interlocks; impact analysis and proof-test alignment.

4. PSI & Documentation

- P&IDs, line lists, HAZOP links; PSI maintenance and version control.

5. Temporary Changes Control

- Bypasses, overrides, setpoints; strict duration control and restoration planning.

6. PSSR & Verification

- Start-up readiness checks; functional validation and field walkdowns.

7. Performance & Audit

- KPIs, trending, lessons learned; continuous improvement of the MOC process.

Phase	Objective	Deliverable
1. MOC Foundations	Define scope, risk-rank changes, and align roles and approvals.	Change request with risk screen.
2. LNG Hazard Context	Identify LNG-specific hazards and consequences (cryogenic, dispersion, ignition).	LNG hazard checklist for MOC.
3. Safeguards Integrity	Assess ESD/SIS impacts, alarms and interlocks; align proof testing.	Updated cause-and-effect; SIL notes.
4. PSI & Documentation	Maintain PSI fidelity; manage version control and study references.	Revised drawings; references to studies.
5. Temporary Changes Control	Control duration and restoration of bypasses, overrides, and setpoints.	Temporary change log & closure plan.
6. PSSR & Verification	Confirm start-up readiness and verify safeguards.	PSSR checklist & sign-offs.
7. Performance & Audit	Define KPIs, trend performance, and capture lessons for improvement.	MOC performance dashboard.