Lockout Tagout Training for Oil & Gas

> Designed for UAE upstream, midstream, and downstream operations, this training delivers immediate value: fewer isolation-related near misses, faster PTW approvals through better-documented plans, reduced rework at restoration, stronger audit outcomes (OSHAD, ADNOC, Dubai Municipality), and improved SIMOPS coordination.

Service Objectives

- Plan and execute isolations that are correct, complete, and verifiable for hydrocarbon and utility systems.
- Understand hazardous energy forms (electrical, hydraulic, pneumatic, thermal, chemical, kinetic, potential) as they manifest in MCCs, SIS-related valves, compressors, separators, pumps, heat exchangers, and process headers.
- Integrate LOTO with PTW, JSA, confined space, hot work, and SIMOPS; document isolation boundaries, vents/drains, test points, and blind schedules.
- Read and reconcile P&IDs, isometrics, and loop diagrams with field conditions; manage backflow, stored pressure, trapped hydrocarbons, line-of-fire and ignition risks.
- Validate zero energy using pressure gauges, multimeters, and functional checks; apply NFPA 70E to establish an electrically safe work condition.
- Lead group LOTO and lock box control for multi-crew campaigns; plan restoration and ensure robust shift handover and verification checks.

Who This Service Is For (Oil & Gas)

- Upstream, midstream, and downstream facilities: refineries, gas processing plants, LNG, tank farms, pump stations, pipelines, and offshore platforms.
- HSE managers and PTW coordinators; mechanical, electrical, and instrumentation technicians; operations panel operators; shift supervisors; maintenance planners.
- Scaffolding and rigging teams working near live equipment; EPC and turnaround contractors operating under SIMOPS.
- Offshore OIMs, maintenance leads, and control technicians where space constraints and fire/explosion risks heighten isolation discipline needs.
- Authorised/Responsible Persons managing isolations; multi-site operators and JV assets seeking aligned terminology, tag formats, and sign-off protocols across ADNOC group companies and third-party terminals.

Duration & Process Overview

- 1-day Awareness: baseline knowledge for workforce and contractors ahead of TARs and major maintenance.

- 2-day Practitioner: hands-on field exercises for technicians and supervisors executing isolations.
- 3-day Authorised/Responsible Person: complex isolation planning, blind/spade management, lock box administration, and leadership of group isolations during SIMOPS and turnarounds.
- Delivery: on-site, hybrid with pre-learning, or split into short blocks aligned to shifts; materials available in English and Arabic.
- Typical class size 8–16; all formats culminate in performance-based assessment using your drawings, isolation standards, and PTW forms.

Methodology

The programme blends classroom learning with field application using your P&IDs, isolation standards, and PTW workflows. Phases and deliverables are summarised below.

Phase	Objective / What It Covers	Duration / Deliverable
Scoping & Pre-learning	Needs analysis; review of LOTO/isolation procedures; sampling P&IDs; design site-specific scenarios.	Pre-course (remote/desk). Tailored scenarios and materials.
Fundamentals of Energy Control	Hazardous energy types; isolation hierarchy; positive vs administrative controls.	2–3 hours. Core principles baseline.
Regulatory & Standards Alignment	OSHA 1910.147, NFPA 70E, ISO 45001, ADNOC/Emirate expectations and terminology alignment.	1.5–2 hours. Mapped compliance expectations.
Electrical Isolation	LOTO for MCCs and field panels; racking; test-before-touch; arc-flash boundaries.	2–3 hours. Demo and practical exercises.
Mechanical & Process Isolation	Spading/blinding, double-block-and-bleed, vents/drains, purging, leak checks for hydrocarbon systems.	3–4 hours. Workshop + field walkdown.
Group Lockout & Contractor Control	Lock boxes, key/hasp control, contractor alignment, documentation, shift handover.	2 hours. Group LOTO practice.
PTW & SIMOPS Integration	Conflict checks; isolation certificates; control room interfaces; MOC tie-in.	2 hours. Workflow mapping output.
Field Exercises	Plan isolations from P&IDs; device placement; zero-energy verification; restoration checks.	3–5 hours. On-plant practicals.
Assessment & Debrief	Written test; scenario-based evaluation; improvement plans; certificate of completion.	1–2 hours. Performance-based results.