HAZOP Training for Oil & Gas

Service Objectives

- Build facilitator and participant capability to run defensible oil and gas HAZOPs in line with IEC 61882.
- Map scope to greenfield, brownfield and SIMOPS contexts; structure nodes to P&ID boundaries; apply guidewords to realistic deviations.
- Evaluate safeguards for IPL independence and reliability; connect findings to IEC 61511, LOPA and alarm rationalisation; consider relief/flare implications.
- Produce auditable, risk-ranked actions with owners, deadlines and verification paths acceptable to corporate and regulator expectations.
- Strengthen facilitation behaviours: question framing, bias control, time management and inclusive multi-discipline participation.
- Integrate HAZOP outputs into MOC, commissioning and turnaround planning; shape revalidation strategies that keep studies current.

Who This Service Is For (Oil & Gas)

- Asset owners and operators across upstream, midstream and downstream: onshore/offshore production, gas processing, pipelines, refineries, terminals and utilities.
- HSE managers, process safety engineers, project and commissioning engineers, control & instrumentation specialists, maintenance supervisors, operations leaders and training coordinators.
- EPC contractors, PMC teams and system integrators delivering design-stage HAZOPs and closing actions before FAT/SAT.
- Teams handling brownfield tie-ins, turnaround windows and SIMOPS; contexts such as H_2S-rich streams, high-pressure sour service, cryogenic LPG/NGLs and tank farms/loading.
- Organisations preparing for periodic revalidations, pre-startup reviews and interactions with regulators or insurers.

> UAE context is embedded throughout, aligning with ADNOC Codes of Practice, OSHAD requirements and relevant Dubai Civil Defence expectations, while maintaining conformance to IEC 61882 and IEC 61511.

Duration & Process Overview

- Course options: Fundamentals (1 day), Practitioner (2 days), Facilitator Masterclass (1 day), Refresher (0.5 day).
- Delivery: on-site at your facility, central venue or virtual instructor-led; optional plant walkdowns where permitted; realistic digital P&IDs and node worksheets for remote.
- Group size: typically 8–16 (6–10 for masterclasses); larger cohorts supported via parallel streams.

- Pre-training scoping: brief needs analysis, review of representative P&IDs/cause-and-effect, and alignment on site-specific scenarios.

Methodology

A lifecycle-based approach that interleaves HAZOP technique with oil and gas realities (refining, gas processing, pipelines, offshore utilities and terminals), ensuring outputs are actionable, traceable and auditable.

Phase	Objective	Deliverable / Outcome
Pre-training scoping & document readiness	Align scope, contexts (greenfield/brownfield/SIMOPS) and required documents (P&IDs, narratives, cause-and-effect, relief/flare data).	Agreed scope; curated study packs reflecting your facility.
Fundamentals & design intent	Clarify HAZOP purpose, design intent and node boundaries per IEC 61882; confirm document readiness.	Shared baseline; initial node list and study plan.
Node selection & guideword application	Apply guidewords to realistic deviations on separators, compressors, exchangers, heaters, storage/loading and pipelines.	Deviation–cause–consequence chains built from P&IDs.
Safeguard credibility & SIS/LOPA links	Test IPL independence, proof-test intervals, bypass management and alarm management; connect to IEC 61511 and LOPA; consider relief/flare practices.	Validated safeguards; inputs to SIL/LOPA and alarm rationalisation.
Workshop facilitation & scribing	Role-play to manage time, bias and room dynamics; ensure E&I, process, operations and maintenance participation.	Efficient sessions; high-quality, traceable records.
Action management & integration	Convert findings into risk-ranked actions with owners and due dates; link into CMMS/MOC; connect to commissioning and turnaround checkpoints.	Action register aligned to internal assurance and ADNOC/OSHAD expectations.
Assessment & certification	Knowledge checks, hands-on worksheets and observed facilitation/scribing drills.	NPM Certificate of Completion; evidence supporting corporate competency matrices.