Inherently Safer Design Review Services UAE

Service Objectives

- Eliminate and minimise hazards at source using eliminate–substitute–moderate–simplify principles.
- Reduce inventories and energy potential; remove ignition sources; simplify human–machine interfaces.
- Align design choices with UAE regulatory expectations and corporate process safety standards.
- Translate inherent options into quantified risk and lifecycle cost trade-offs for capital-efficient decisions.
- Deliver defensible, traceable recommendations linked to HAZID/HAZOP/LOPA and project change control.

> UAE context: recommendations are mapped to OSHAD (Abu Dhabi), Dubai Municipality and Civil Defence requirements, MOHRE worker protection expectations, and commonly referenced standards (ISO 45001, ISO 14001, NFPA guidance).

Who This Service Is For

- Organisations planning greenfield projects, brownfield modifications, capacity expansions, or complex utilities tie-ins.
- Sponsors such as HSE leaders, project directors, engineering managers, and asset integrity teams.
- High-risk sectors: offshore/onshore oil and gas, petrochemicals, LNG, chemical processing, power and water, logistics terminals, heavy manufacturing.
- EPCs, FEED/PMC teams, and owner-operators seeking an independent challenge, option validation, and documentation during FEL/FEED, detailed design, and MoC.
- Stakeholders requiring evidence for investors, insurers, and regulators that hazards are engineered out where practicable.

Duration & Process Overview

Engagement length depends on facility complexity, number of units, and data maturity. Typical sequencing:

Phase	Typical Duration
Scoping & Data Review	1–2 weeks
Workshops (per unit)	2–5 days
Targeted Analyses	1–3 weeks
Validation & Reporting	1–2 weeks

Delivery can be on-site, hybrid, or remote, with workshops and targeted site walkdowns where beneficial.

Methodology

A structured, auditable approach tailored to design maturity and operational context.

Phase	Objective	Deliverable
Pre-engagement scoping	Confirm objectives, battery limits, interfaces, and document maturity.	Scope memo; data request list.
Data review	Examine chemistry, inventories, operating envelopes, relief/flare, utilities, controls, and human factors constraints.	Preliminary hazard focus areas.
Workshop facilitation	Apply eliminate–substitute–moderate–simplify in cross-functional sessions; prioritise high-leverage scenarios.	Inherent option register; action log; preliminary recommendations.
Targeted calculations	Run consequence screening, inventory benchmarking, SIL/LOPA alignment checks, and spacing sensitivity.	Screening calculations; layout alternatives; risk–lifecycle trade-offs.
Option evaluation	Rank options by risk reduction, constructability, operability, maintenance, and lifecycle cost.	Prioritised options with implementation pathways.
Validation and close-out	Align with decision gates, MoC, and regulatory submissions; finalise traceable actions and owners.	Final report; implementation roadmap; traceable action list.

Recommendations are integrated with design documents, procurement specifications, contractor scopes, and site execution plans to ensure practical implementation.