CONCEPT

High Reliability Organisations (HRO): Weak Signals, Drift and Board Assurance

15 – 19 March 2027
London - Central London four-star



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Ref: 900_21144 **Date:** 15 – 19 March 2027 **Location:** London - Central London four-star **Fees:** 25300 SAR

Introduction:

High reliability organisations run hazardous, tightly coupled operations for long periods without catastrophe, yet many energy, aviation and healthcare operators still read a quiet incident record as proof of control. Major accident inquiries show the warnings were usually present: small anomalies, workarounds that became routine and indicators that looked green. This Core Concept course equips senior leaders to apply the five HRO principles, detect and escalate weak signals, resist drift and test operational risk assurance at board level. Participants produce an HRO Maturity Assessment and Leadership Action Plan for a case operation.

Course Objectives:

- Explain what high reliability means in hazardous, tightly coupled operations and how it differs from a low recordable injury rate
- Assess an operation against the five HRO principles of collective mindfulness and locate the principles that are weakest
- Establish routes for surfacing, triaging and escalating weak signals so that anomalies reach decision makers before they combine
- Recognise normalisation of deviance and drift into failure in operating practice and set controls on deferred maintenance, overrides and temporary changes
- Challenge process safety indicators, management of change records and assurance reports presented to the executive and the board
- Produce an HRO Maturity Assessment and Leadership Action Plan that sequences capability building for a case operation

Target Audience:

- Executives and general managers accountable for hazardous plants, fleets, hospitals or networks
- Operations directors who own production targets alongside major accident risk
- HSE and enterprise risk heads who report operational risk to the executive committee and the board
- Board and risk committee members overseeing process safety and operational assurance
- Asset and technical directors who approve deferrals, overrides and changes to safety-critical systems

Course Outline:

Day 1: The Meaning of High Reliability in Hazardous Operations

- Normal Accident Theory Versus High Reliability Theory: Interactive Complexity and Tight Coupling
- Reliability Paradox: Why Long Incident-Free Periods Breed Complacency
- Personal Injury Rates Versus Major Accident Exposure in Executive Dashboards
- HRO Reference Settings: Air Traffic Control, Nuclear Generation, Carrier Flight Decks and Intensive Care
- Executive Reliability Posture Self-Check Against Current Operating Reality

Day 2: The Five HRO Principles of Collective Mindfulness

- Preoccupation With Failure: Treating Near Misses and Anomalies as Free Lessons
- Reluctance to Simplify: Requisite Variety and Competing Interpretations of Risk
- Sensitivity to Operations: Front-Line Picture of Barriers, Workarounds and Latent Conditions
- Commitment to Resilience: Detecting, Containing and Bouncing Back From Unexpected Events
- Deference to Expertise: Migrating Decision Authority to Those Closest to the Hazard

Day 3: Weak Signals, Chronic Unease and Leadership Attention

- Weak Signal Sources: Alarms Shelved, Overdue Inspections, Recurring Trips and Staff Concerns
- Signal Triage Ladder From Observation to Executive Escalation
- Chronic Unease as a Leadership Discipline: Probing Questions and Bad-News Rewards
- Leadership Walkarounds Focused on Barrier Condition Rather Than Behaviour Spotting
- Speak-Up Channels and Response Commitments for Operators, Contractors and Clinicians

Day 4: Drift Into Failure, Assurance and Operational Discipline

- Normalisation of Deviance: Incubation Periods, Accepted Anomalies and Shrinking Safety Margins
- Recurring Organisational Causes in Major Accident Investigations Across Energy, Aviation and Healthcare
- Leading and Lagging Process Safety Indicator Tiers for Board Reporting
- Management of Change Governance for Temporary, Organisational and Deferred-Maintenance Changes
- Three Lines Assurance of Operational Risk and Operational Discipline Audits

Day 5: Case Work: HRO Maturity Assessment and Leadership Action Plan

- Case Operation Briefing Pack: Incident History, Indicator Trends and Change Register
- HRO Maturity Grid Scoring Across the Five Principles With Evidence Notes
- Learning Organisation Mechanisms: After-Action Reviews, Precursor Analysis and Knowledge Retention
- Leadership Action Plan Sequencing: Quick Wins, Capability Build and Assurance Checkpoints
- Maturity Assessment and Action Plan Defence Before a Mock Board Risk Committee

Skills You Will Gain:

- High Reliability Diagnosis
- Collective Mindfulness Leadership
- Weak Signal Escalation
- Drift Detection
- Process Safety Indicator Oversight
- Change Governance Challenge
- Operational Assurance Review
- Organisational Learning Design

Why Attend This Course:

- Take back an HRO Maturity Assessment and Leadership Action Plan scored against evidence from a realistic case operation
- Learn the questions that expose drifting practice and optimistic green dashboards before an event forces the issue
- See how organisational causes repeat across energy, aviation and healthcare accidents and what that means for your own decisions
- Exchange reliability practice with senior peers from utilities, petrochemicals, airlines, hospitals and heavy industry

Conclusion:

Reliability is not the absence of incidents but the continuous work of noticing, questioning and recovering before small failures align. The course moves from the meaning of high reliability and the limits of injury statistics, through the five principles of collective mindfulness, to weak signals, chronic unease and leadership attention, then drift, process safety indicators, change governance and assurance. The final day applies these ideas to a case operation and produces an HRO Maturity Assessment and Leadership Action Plan ready for the executive agenda.