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# Advanced Control Room Console Operator Upset Response Training Course

9 – 20 August 2027
Geneva

# Advanced Control Room Console Operator Upset Response Training Course

**Ref:** 407_14464 **Date:** 9 – 20 August 2027 **Location:** Geneva **Fees:** 12500 GBP

Control Room Console Operator Upset Response is the focus of this 2-week advanced training course for console operators, control room supervisors and unit engineers, who build a Console Upset Response Playbook for their own panel. Plants now run from fewer consoles, so the first minutes of an upset decide whether a unit rides through or trips. Jupiter Prime Training presents this course on control room console operator upset response.

## Why Control Room Console Operator Upset Response Matters Now

Three pressures meet at the console today: consolidated control rooms where one operator watches more units than before, alarm floods that bury the one signal that matters, and a generation of senior panel operators leaving before their instincts are written down. A site whose console crews respond well holds units within safe limits, recovers rate quickly and avoids needless shutdowns; a site whose crews respond poorly chases alarms, overcorrects and turns small disturbances into trips. The course draws on alarm guidance in EEMUA 191 and ANSI/ISA-18.2, the Abnormal Situation Management ASM approach to console work and Endsley's model of situation awareness.

## Who Gains Most from Control Room Console Operator Upset Response

- Operators who hold a panel through disturbances, alarm bursts and rate changes
- Supervisors who decide on the shift whether a unit is cut back, held or brought to a safe state
- Engineers who write console procedures, operating limits and alarm responses for their unit
- Trainers who run simulator sessions and assess console operator readiness
- Leads who coordinate panel and outside operators during an unplanned event

A console crew that sends its panel operator, outside operator and shift supervisor together gains most, because the playbook relies on how all three talk.

## Control Room Console Operator Upset Response Capabilities

Participants leave able to read an emerging upset from the console, cut through alarm noise and move a unit to a stable or safe state with clear crew communication.

- Recognise early upset signatures on console trends and overview displays — guiding the first panel move
- Prioritise alarms during floods using rationalised alarm priorities — protecting the operator's attention
- Apply first-response and safe-state procedures for common unit upsets — serving shift supervisors
- Communicate with outside operators using closed-loop instructions — protecting field crews
- Decide between hold, cut back and controlled shutdown — informing supervisors and unit engineers
- Build console playbook cards from post-event debriefs — supporting trainers and new operators

## Key Control Room Console Operator Upset Response Terms

- Upset — a disturbance that moves a unit away from its normal operating window and needs prompt console action.
- Alarm Flood — a period when more alarms arrive than an operator can read and act on, often hiding the first cause.
- Safe State — a stable condition, such as reduced rate or hot standby, that a unit can hold while a disturbance is resolved.
- Situation Awareness — the operator's perception of what is happening, understanding of what it means and projection of what will happen next.
- Operating Window — the agreed ranges for key variables within which a unit runs safely and meets product targets.
- Console Playbook Card — a short guide that sets the first moves for one upset on one panel.

## Control Room Console Operator Upset Response Day by Day

## Day 1: The Console Operator's Role in Upsets

- Consolidated Control Room Designs — Weighing Span of Control per Console
- Upset Life Cycle — Separating Detection, Response and Recovery Phases
- Human Performance at the Console — Limiting Fatigue and Distraction Effects
- Lessons From Refinery and Power Station Events — Framing Console Decisions
- Console Readiness Self-Assessment — Selecting Personal Development Priorities

## Day 2: Situation Awareness

- Endsley Situation Awareness Model — Building Perception, Comprehension and Projection
- Overview and Navigation Displays — Spotting Deviations Before Alarms Sound
- Trend Pattern Recognition — Reading Drift, Oscillation and Step Changes
- Mental Models of the Unit — Predicting Where a Disturbance Travels
- Situation Awareness Probes — Testing What Operators Actually Notice

## Day 3: Alarm Handling Under Pressure

- EEMUA 191 Alarm Principles — Judging Whether Alarms Help or Hinder
- ANSI/ISA-18.2 Alarm Life Cycle — Linking Rationalisation to Console Response
- Alarm Priority and Response Time — Deciding Which Alarm Comes First
- Alarm Flood Tactics — Finding the Initiating Alarm Quickly
- Shelving and Suppression Rules — Avoiding Hidden Hazards on the Panel

## Day 4: First Response Procedures

- Immediate Action Steps — Stabilising the Unit in the First Minutes
- Symptom-Based Response Charts — Acting Before the Cause Is Known
- Operating Window and Trip Margins — Choosing How Far to Push
- Manual Takeover of Controllers — Deciding When Automatic Control Must Yield
- Response Procedure Formats — Writing Steps Operators Can Follow Under Stress

## Day 5: Column and Heater Upsets

- Column Pressure and Level Swings — Protecting Separation and Relief Systems
- Reflux and Reboiler Duty Loss — Holding Product Specifications Temporarily
- Fired Heater Flame-Out and Draft Loss — Moving to a Safe Firing State
- Feed Rate Cutback Strategies — Buying Time Without Losing the Unit
- Console Moves for Cooling Water Loss — Protecting Exchangers and Condensers

## Day 6: Machinery Upsets From the Console

- Pump Cavitation and Loss of Suction — Switching to Standby Machines
- Compressor Surge Warnings — Supporting Anti-Surge Action From the Panel
- Vibration and Bearing Temperature Alerts — Deciding to Run or Stop
- Utility Failures in Steam, Air and Power — Sequencing Unit Protection
- Trip Recovery and Restart Readiness — Confirming Conditions Before Restart

## Day 7: Crew Communication and Coordination

- Closed-Loop Radio Instructions — Confirming Field Actions Are Done
- Panel and Outside Operator Roles — Dividing Work During an Upset
- Supervisor Briefings Mid-Event — Keeping Leaders Informed Without Distraction
- Shift Handover After an Upset — Passing On Unresolved Conditions
- Crew Resource Management at the Console — Challenging Unsafe Moves Respectfully

## Day 8: Safe-State Decisions

- Hold, Cut Back or Shut Down — Weighing Safety, Product and Equipment Stress
- Safety Instrumented System Interfaces — Respecting Automatic Trips and Bypasses
- Management of Change for Temporary Operating Moves — Controlling Workarounds
- Escalation Triggers to Engineers — Calling Support at the Right Moment
- Decision Logs During Events — Recording Moves for Later Review

## Day 9: Simulator Practice and Debriefs

- Operator Training Simulator Scenarios — Rehearsing Rare High-Consequence Upsets
- Scenario Scoring Criteria — Assessing Console Performance Fairly
- Structured Post-Event Debriefs — Turning Events Into Console Lessons
- Near-Miss Console Stories — Sharing What Almost Went Wrong
- Competence Records for Console Operators — Tracking Readiness Across Crews

## Day 10: Practising the Console Upset Response Playbook

- Alarm Flood Drill — Applying Priority and Initiating Alarm Tactics
- Column Upset Drill — Using Symptom-Based Charts and Cutback Moves
- Machinery Trip Drill — Coordinating Panel and Field Operators by Radio
- Crew Debrief Practice — Capturing Lessons and Playbook Changes
- Console Upset Response Playbook — Completing Cards for the Participant's Panel

## Applying Control Room Console Operator Upset Response After the Course

- Draft symptom-based playbook cards for the three most frequent upsets on one console and test them in a crew briefing.
- Run a structured debrief after the next unplanned event and update the relevant card with what the crew learned.

## Control Room Console Operator Upset Response Questions FAQ

### What is control room console operator upset response and why does it matter now?

It is how console operators detect, stabilise and recover a unit during disturbances. It matters now because consolidated control rooms, alarm floods and retiring senior operators leave less margin for slow first moves.

### Which roles gain most from control room console operator upset response training?

Console operators, control room supervisors and the unit engineers who write their procedures gain most, because they make or shape the first moves in every upset.

### How does control room console operator upset response differ from an engineering problem-solving course?

It works in the first minutes at the panel, not in the investigation afterwards. An engineering problem-solving course explains why a unit failed, while this subject trains the live console response.

## What do you bring back from control room console operator upset response training?

You bring back a Console Upset Response Playbook for your panel. It holds first-move cards, alarm priorities, safe-state choices and radio routines, ready to brief to your crew.

## Control Room Console Operator Upset Response: The Way Forward

The Console Upset Response Playbook first informs the panel operator's opening moves in the next disturbance on the unit. Panel crews and shift supervisors use it to share one sequence and one language. After its first real use, it is worth revisiting which alarms helped and which distracted, since this shows where alarm rationalisation should focus next.