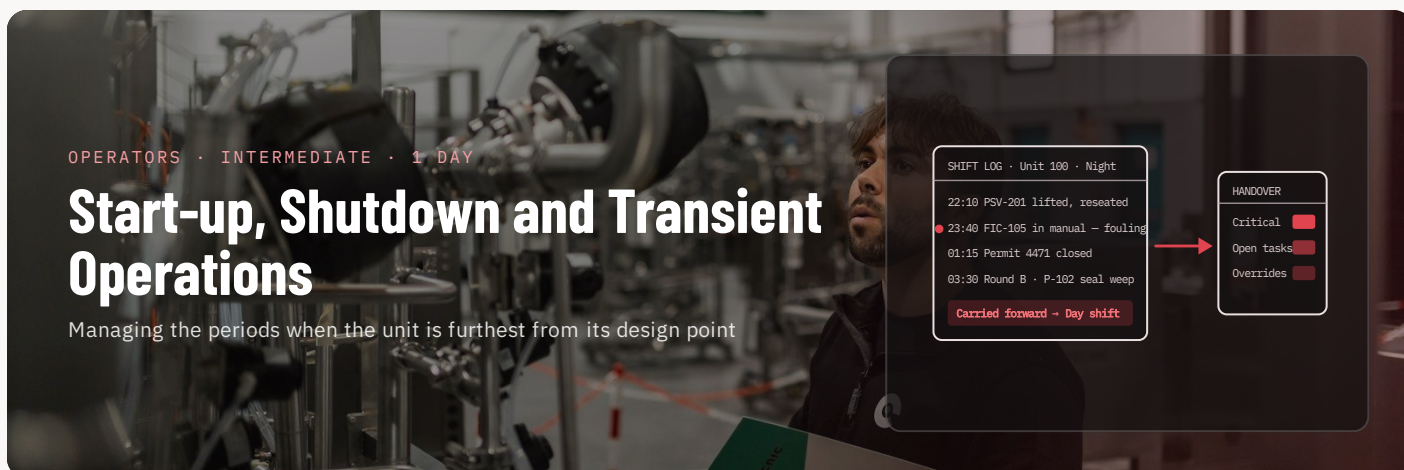



DURATION
 1 day

LEVEL
 Intermediate

FORMAT
 On-site classroom · virtual instructor-led

LANGUAGE
 English

MAX. PARTICIPANTS
 16

3

transient scenarios walked through

1

start-up procedure reviewed line by line

PSSR

checklist template

Overview

Transient operations account for a small fraction of running hours and a large share of serious incidents. This course looks at what is physically different about a unit at start-up, shutdown, rate change and emergency depressuring: thermal stress, water and air ingress, level control at low rates, trips that behave differently, and procedures written for a plant that has since changed. Participants review one of their own start-up procedures step by step and work through three transient scenarios on the site's own trends.

Learning outcomes

- Identify the hazards specific to start-up, shutdown and rate changes on their unit
- Apply purging, leak testing, warm-up and cool-down limits correctly
- Recognise where trips, alarms and controllers behave differently outside normal operation
- Use the pre-start-up safety review as a genuine check, not a signature exercise
- Handle emergency shutdown and depressuring with the intended sequence
- Feed back procedure deviations and near-misses so the procedure improves

Who should attend

Panel operators, shift supervisors, operations engineers and turnaround coordinators involved in unit start-up, shutdown and rate changes

Course outline

MORNING

Transient-operation incidents and their common causes · start-up sequence: air-freeing, purging, leak testing, inventory and warm-up · thermal and mechanical limits on equipment · trip and override management during start-up · procedure review of a participants' start-up procedure

AFTERNOON

Planned shutdown, decontamination and hand-over to maintenance · emergency shutdown and depressuring · rate changes, feed changes and turndown · pre-start-up safety review and restart after a trip · three transient scenarios on the site's trends · quiz and certificate

Standards referenced

OSHA 29 CFR 1910.119(f) / (g)

CCPS Guidelines for Safe Process Operations and Maintenance

CCPS Conduct of Operations ISA-18.2 API 521 (depressuring)

Tools & exercises

Scenario walk-throughs on the site's own historian trends and CeraShift shift logs

What's included

- ✓ Course manual and slide pack
- ✓ Software access for the course
- ✓ Post-course Q&A with the instructor
- ✓ Exercise and case-study pack
- ✓ Competency quiz and certificate
- ✓ Templates used in the exercises

PREREQUISITES

Operating experience on a process unit; TR-G01 recommended

CERTIFICATION

Certificate of completion; competency record for the training matrix

INSTRUCTORS

Practising engineers — TÜV HAZOP Leader, CCPS and IEC 61511 Functional Safety certified — with 200+ years of cumulative plant experience.

Book this course or build a custom curriculum

On-site at your plant or virtual · in-house groups · competency assessment included

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