
Commissioning and Start-Up Training Course: Completions, Punch Lists and Handover Sign-Off

5 – 9 July 2027
New York





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Ref: 528_28445 Date: 5 – 9 July 2027 Location: New York Fees: 7900 GBP

Programme Summary

Commissioning and start-up training course for project directors, owner representatives and handover leaders, lasting one week and ending in a handover sign-off file for one system or facility. Projects often reach mechanical completion with open punch items, unclear system boundaries and no agreed test of readiness, so operators inherit problems. The programme follows the path from completion to pre-commissioning, commissioning, start-up and acceptance, and teaches how to govern each decision. Mars Training Centre UK delivers this programme on commissioning and start-up to mixed-organisation cohorts.

The Business Case

Handover is where construction effort meets operating reality. When completion records are loose and acceptance criteria are vague, start-up slips, safety checks are rushed and responsibility for defects is disputed. Leaders who govern completions through clear system boundaries, tested readiness and recorded sign-off reduce rework after energisation and give operators a facility they can run with confidence from the first day of operation.

- Start-Up Delay: Shortens as open items are ranked by their effect on readiness.
- Safety Assurance: Strengthens as pre-start-up reviews are completed before hazardous steps.
- Defect Accountability: Becomes clearer as acceptance records show who closed what.

Principles and Evidence Base

- Systemisation and limits of system handover: Dividing a facility into defined systems with agreed boundaries shapes Sessions 1 and 2.
- Pre-start-up safety review: This structured check of readiness before hazardous operations begin guides Sessions 3 and 4.
- Management of change: Its discipline of reviewing alterations before they are made governs the late changes handled in Session 4.

Intended Participants

- Project directors who must decide when a system is complete enough to move to the next stage.
- Owner representatives who accept systems on behalf of the operating organisation.
- Handover leaders who coordinate construction, commissioning and operations teams.
- Quality and safety managers who confirm that tests and reviews are complete.
- Operations managers who prepare to receive and run a new facility.

Typical functions include construction, oil and gas, power and utilities, and building services.



Learning Outcomes

1. Participants will be able to construct a system boundary list that supports orderly completion and handover.
2. Participants will be able to prioritise punch list items by their effect on safety, testing and operation.
3. Participants will be able to evaluate pre-commissioning and commissioning evidence against agreed acceptance criteria.
4. Participants will be able to diagnose readiness gaps before start-up is authorised.
5. Participants will be able to design a completions record that links tests, defects and sign-off.
6. Participants will be able to justify an acceptance or rejection decision with recorded evidence.

Programme Structure

Day 1: Commissioning and Start-Up Principles and Systems

How is a facility divided into systems so that completion can be proved system by system?

- Commissioning Phase Map
- System Boundary List
- Completion Status Matrix
- Responsibility Allocation Chart
- Readiness Gap Diagnostic

Day 2: Mechanical Completion and Punch Lists

When is construction complete enough to hand a system to commissioning?

- Mechanical Completion Criteria
- Punch List Categories
- Open Item Ranking Method
- Inspection Record Review
- Completions Database Structure

Day 3: Pre-Commissioning and Commissioning Evidence

What tests and records show that a system works as designed?

- Pre-Commissioning Test Schedule
- Test Procedure Review
- Performance Test Evidence Sheet
- Deviation and Waiver Log
- Pre-Start-Up Safety Review Checklist



Day 4: Start-Up Decisions and Late Changes

Who decides that start-up may proceed, and how are late changes controlled?

- Start-Up Authorisation Gate
- Management of Change Form
- Operator Readiness Review
- Handover Risk Register
- Acceptance Criteria Matrix

Day 5: Assembling the Handover Sign-Off File

Do the boundaries, punch lists, test evidence and start-up decisions support a sound sign-off?

- Applying the Session 1 Boundary List to a Live System
- Re-Ranking Open Items with the Session 2 Method
- Checking Session 3 Evidence Against Acceptance Criteria
- Testing the Session 4 Gate on a Start-Up Case
- Completing the Handover Sign-Off File

Methodology

The programme uses a structured exercise method built on anonymised punch lists, test records, completion status reports and handover packages from oil and gas, power and building projects. Participants work in small groups on a system of their own, rank open items, challenge one another's readiness judgements and receive facilitator feedback on every record and decision they produce.

- Suggested activity: Ranking a mixed punch list and defending the order to a peer panel.
- Suggested activity: Reviewing a set of test records and marking evidence that does not meet its criteria.
- Suggested activity: Acting as the start-up authority and deciding whether a system may proceed.

Capstone Output

Each participant completes a handover sign-off file for one system or facility. It holds a system boundary list, a ranked punch list, a test evidence summary, a readiness gap register, a start-up gate record and an acceptance statement. The file is used at work to brief the project board, agree conditions with the operating team and close out the completions record.



Frequently Asked Questions

Is commissioning and start-up suitable for leaders who have not run a handover before?

Yes. The programme assumes experience of delivering or receiving projects and builds commissioning and start-up from system boundaries upward, with no technician-level test skills needed.

Which practices does commissioning and start-up rest on in this programme?

It rests on systemisation and limits of system handover, the pre-start-up safety review and management of change.

How is the handover sign-off file used at work?

You use it to brief the project board, agree conditions with the operating team and close out the completions record for your facility.

How does commissioning and start-up differ from a programme on construction project management?

Commissioning and start-up centres on proving, accepting and handing over completed systems, while construction project management centres on planning and controlling the build itself.