
Inspection and Test Plan Management for Construction Projects Training Course

23 – 27 August 2027
Geneva





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Programme Summary

Inspection and test plan management for construction projects is a five-day training course for senior quality, site and owner-side leaders at advanced level, culminating in a project inspection and test plan with its hold point and non-conformance control procedure. Defects that escape construction quality control are rebuilt at someone's expense. The approach treats inspection planning, release of work and corrective action as one control system. Mars Training Centre UK delivers this programme in inspection and test plan management for construction projects.

The Business Case

On many sites, quality depends on individual inspectors rather than a planned system. Inspection requests arrive late, hold points are bypassed under programme pressure and non-conformances stay open until handover, producing rework, disputed acceptance and long snagging lists. A planned inspection regime agreed with subcontractors and the owner's team moves effort from detection to prevention.

- Rework Cost: Falls as hold points stop defective work before it is covered or built upon.
- Handover Readiness: Improves as inspection records and close-out evidence accumulate during construction.
- Acceptance Disputes: Reduce as acceptance criteria and responsibilities are agreed before work starts.

Principles and Evidence Base

- ISO 10005:2018 Guidelines for Quality Plans: Shapes the project quality plan and its link to inspection planning in Session 1.
- ISO 10006:2017 Quality Management in Projects: Frames quality responsibilities between owner, consultant and contractor in Session 1 and Session 4.
- ISO 9001:2015 Quality Management Systems: Its requirements for control of nonconforming outputs guide the corrective action process in Session 4.
- Plan-Do-Check-Act Cycle: Links inspection results to prevention measures across Session 3 and Session 5.

Intended Participants

- Leaders accountable for the quality of permanent works on major sites.
- Owner-side representatives who attend or release hold and witness points.
- Managers who approve method statements, material submittals and subcontractor quality plans.
- Resident engineers who must close out non-conformances and assemble handover records.



The programme serves building, civil infrastructure, industrial plant and utilities construction.

Learning Outcomes

1. Participants will be able to construct an inspection and test plan with acceptance criteria, responsibilities and hold and witness points.
2. Participants will be able to evaluate method statements and material submittals against specification before approval.
3. Participants will be able to diagnose weaknesses in testing regimes for concrete, steel, welding and building services.
4. Participants will be able to justify the disposition of a non-conformance and verify its corrective action.
5. Participants will be able to prioritise subcontractor and supplier quality controls by risk.
6. Participants will be able to design a defect prevention, snagging and quality handover regime.

Programme Structure

Day 1: Quality Planning and Inspection and Test Plan Design

How is site inspection planned before work begins?

- Project Quality Plan Structure under ISO 10005:2018
- Owner, Consultant and Contractor Quality Roles under ISO 10006:2017
- Inspection and Test Plan Anatomy: Activities, Criteria and Frequencies
- Hold, Witness, Review and Surveillance Points
- Linking Inspection Plans to the Specification and Work Breakdown

Day 2: Approvals Before Work Starts

What must be approved before a work activity proceeds?

- Method Statement Review and Approval Criteria
- Material Submittals, Samples and Mock-Ups
- Inspection Request Workflow and Notice Periods
- Pre-Activity Meetings and First-Work Inspections
- Calibration and Control of Inspection Equipment

Day 3: Inspection, Testing and Records

Do inspection and test records prove that the work meets the specification?

- Concrete Pre-Pour Inspection, Sampling and Strength Testing
- Reinforcement, Structural Steel and Bolted Connection Checks
- Welding Inspection and Non-Destructive Testing Records
- Building Services Testing and Pre-Commissioning Checks
- Inspection Record Quality and Traceability Audits



Day 4: Non-Conformance and Supply Chain Quality

How are non-conformances resolved and prevented from recurring?

- Non-Conformance Reports: Raising, Grading and Disposition
- Root Cause Analysis and Corrective Action Verification
- Subcontractor Quality Plans and Prequalification
- Supplier Inspection and Factory Acceptance Visits
- Quality Trend Indicators and Site Quality Reporting

Day 5: Applying Inspection and Test Plan Management to Handover

Can the project demonstrate acceptable quality at handover?

- Defect Prevention Planning from Earlier Non-Conformance Trends
- Snagging Inspections and Defect Close-Out Tracking
- Quality Handover Dossier and As-Built Records
- Owner Acceptance Walk-Down Using Earlier Inspection Plans
- Project Inspection and Test Plan and Control Procedure Completion

Methodology

The programme uses case analysis of building and industrial projects, built on real-format inspection plans, method statements, test results and non-conformance reports. Each session moves from a short briefing to group review of the documents and peer challenge of the decisions taken.

- Suggested activity: Marking hold and witness points on a draft inspection plan for a concrete frame.
- Suggested activity: Reviewing a set of welding records for gaps in traceability.
- Suggested activity: Deciding the disposition of three non-conformances and their corrective actions.

Capstone Output

Each participant produces an inspection and test plan for a work package from their own project, with its hold point release procedure, non-conformance and corrective action procedure and handover record list, ready to issue as the agreed basis for acceptance.

Frequently Asked Questions

Is inspection and test plan management training suitable for senior leaders who no longer inspect work themselves?

Yes. It is set at advanced level for leaders who own site quality systems or accept work for the owner, and assumes site experience but no prior quality training.



Which standards does inspection and test plan management training rest on?

It rests on ISO 10005:2018 for quality plans, ISO 10006:2017 for quality management in projects, ISO 9001:2015 for control of nonconforming outputs and the Plan-Do-Check-Act cycle.

How is the construction inspection and test plan from the programme used at work?

You can issue it to subcontractors and the owner's team as the inspection basis for a work package, then extend the format to other packages.

How does inspection and test plan management differ from general project quality management courses?

It works at site level on inspection planning, release of work, testing records and non-conformance close-out, rather than on organisation-wide quality systems or project quality policy.