CORE CONCEPT

Vendor Inspection and Factory Acceptance Testing (FAT) Course for Project Equipment

19 – 23 September 2027
Dammam - Eastern Province five-star

Vendor Inspection and Factory Acceptance Testing (FAT) Course for Project Equipment

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Introduction:

Vendor inspection and factory acceptance testing FAT for project equipment is a 1-week course for owner, EPC and third-party inspection units at supplier works, ending with a Vendor Inspection Plan and FAT Protocol for a case equipment package. Projects lose weeks when pump, vessel or switchgear defects surface at site because hold points were skipped, test records were thin or release was signed early. Nominees already inspect at manufacturers' works or review vendor quality records, and work through case studies on real test plans, reports and data records. CoreConcept Training Center delivers this vendor inspection course.

Course Objectives:

- Rate project equipment orders by criticality and set the vendor inspection level, visit frequency and surveillance intensity for each
- Review and approve supplier inspection and test plans, assigning hold, witness, review and surveillance points against purchase order requirements
- Lead pre-inspection meetings that confirm test procedures, acceptance criteria, material certificates and notification periods with the manufacturer
- Witness pressure, mechanical run, performance and electrical routine tests and record findings in inspection visit reports
- Disposition vendor nonconformances, review manufacturer data records and issue inspection release notes only when acceptance evidence is complete
- Define third-party inspection contract scope, inspector assignment and performance review for multi-supplier equipment packages

Target Audience:

- Owner vendor inspection units that witness tests and release equipment at manufacturers' works
- EPC quality units that plan supplier surveillance for packages bought on behalf of project owners
- Third-party inspection units that carry out witness and surveillance visits under inspection service contracts
- Package and discipline engineering units that approve test procedures and review supplier test results
- Supplier quality units at equipment manufacturers that prepare inspection and test plans and FAT records for clients

Course Outline:

Day 1: Vendor Inspection Scope Within Equipment Procurement

- Vendor Inspection Role Map Across Owner, EPC and TPI
- Inspection Levels and Surveillance Intensity by Equipment Criticality
- Purchase Order Quality Requirements and Inspection Clause Review
- Equipment Criticality Rating for Pumps, Vessels and Switchgear
- Current Vendor Inspection Practice Gap Assessment Checklist

Day 2: Inspection and Test Plans, Test Standards and Pre-Inspection Meetings

- Inspection and Test Plan Structure with Intervention Codes
- Hold, Witness, Review and Surveillance Point Assignment Rules
- EN 10204 Inspection Certificate Types and Material Traceability
- API 610, API 617 and IEC 60076 Test Requirements Mapping
- Pre-Inspection Meeting Agenda, Attendance and Minutes Template

Day 3: In-Process Inspection, Test Witnessing and Visit Reporting

- Raw Material and Welding Procedure Qualification Record Verification
- ASME Section VIII Hydrostatic Test Witnessing for Pressure Vessels
- Pump and Compressor Mechanical Run and Performance Test Protocols
- IEC 62271 Switchgear Routine Tests and Transformer Test Witnessing
- Inspection Visit Report Writing with Photographic Evidence

Day 4: Vendor Nonconformances, Equipment Release and TPI Contract Control

- Vendor NCR Classification, Disposition and Concession Request Handling
- Manufacturer Data Record Compilation and Final Dossier Review
- Inspection Release Note and Shipping Release Conditions
- Site Integration Test Protocol Linking FAT Results to SAT
- Third-Party Inspection Contract Scope and Inspector Assignment Control

Day 5: Case Study on a Vendor Inspection Plan and FAT Protocol

- Case Equipment Package Criticality Rating and Inspection Level Setting
- Case Inspection and Test Plan Drafting with Intervention Points
- Case FAT Protocol for a Centrifugal Pump Skid
- Case Vendor NCR and Inspection Release Note Exercise
- Vendor Inspection Plan and FAT Protocol Completion and Defence

Skills You Will Gain:

- Equipment Criticality Rating
- Inspection and Test Plan Review
- Test Witnessing Technique
- Inspection Visit Reporting
- Nonconformance Disposition
- Data Record Verification
- Equipment Release Decision
- TPI Contract Oversight

Why Attend This Course:

- Present a Vendor Inspection Plan and FAT Protocol for a case equipment package to the project quality manager and procurement lead
- Decide whether equipment can be released for shipment, released with a concession or held pending retest
- Avoid shipping pumps, vessels and switchgear with untested functions, missing certificates or open NCRs that delay site start-up
- Equip colleagues with the intervention point matrix, test witnessing checklists and release note conditions used in class

Conclusion:

Back at work, the participant gives the project quality manager and the procurement lead a Vendor Inspection Plan and FAT Protocol that set inspection levels per order, intervention points, test acceptance criteria, data record content and release conditions. Package engineers use it to brief suppliers at the pre-inspection meeting, the inspection coordinator to assign TPI inspectors, and the project team to decide when equipment may ship. After the first package is released, the unit should compare NCRs raised at works with defects found at site and tighten the plan where gaps appear.

Frequently Asked Questions FAQ:

What should participants know before a vendor inspection and factory acceptance testing course?

Participants should already read equipment datasheets, purchase order specifications and test reports, and have attended or reviewed at least one supplier inspection. Bringing an anonymised inspection and test plan or FAT report lets them test each case exercise against their own equipment packages.

How does vendor inspection and factory acceptance testing differ from construction site quality control?

It takes place at the manufacturer's works before shipment, covering inspection and test plans, test witnessing, data records and release notes for equipment. Construction quality control covers concrete, steel and earthworks on site, while supplier expediting tracks delivery progress rather than technical acceptance.

Why do hold points matter in vendor inspection and factory acceptance testing?

A hold point stops manufacture until the owner or its inspector has witnessed or approved the step, such as a pressure test or performance run. Skipping one removes evidence that cannot be recreated later, so defects travel to site where correction is slower and costlier.

What do participants take back from a vendor inspection and factory acceptance testing course?

Participants take back a Vendor Inspection Plan and FAT Protocol for a case equipment package, with a criticality rating, an inspection and test plan, a test witnessing checklist, an NCR log format and release note conditions ready to adapt to their own orders.