



API Spec Q1 Quality Management System: Implementation and Licensing Audit Readiness



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Introduction:

Manufacturers of oil and gas equipment often run a working ISO 9001 system yet fall short of API Spec Q1 because risk assessment, contingency planning, management of change and control of critical or outsourced activities are thin or undocumented. Product quality plans, supplier evaluation and nonconformance records then fail when an auditor traces one order end to end. This Core Concept course trains quality teams to interpret each API Spec Q1 requirement and build the evidence a licensing auditor expects. Participants produce a Q1 Gap Assessment and Implementation Plan for a case manufacturer.

Course Objectives:

- Interpret the structure and added requirements of API Spec Q1 against an existing ISO 9001 system
- Build a risk register, contingency plans and a management of change workflow that meet API Spec Q1
- Apply design, purchasing and outsourced activity controls to critical products and suppliers
- Control production, inspection, testing and nonconforming product with traceable records
- Run internal audits and management reviews that prepare a site for an API Monogram licensing audit
- Produce a Q1 Gap Assessment and Implementation Plan for a manufacturing organisation

Target Audience:

- Managers accountable for the quality management system of an equipment manufacturing or repair facility
- QA/QC engineers who write inspection and test plans and release product
- Internal and supplier auditors who assess conformity with API Spec Q1
- Supplier quality leads who approve critical vendors and outsourced processes
- Operations and engineering leads responsible for design changes and production controls

Course Outline:

Day 1: API Spec Q1 Purpose, Structure and Licensing Landscape

- API Spec Q1 Purpose, Scope and Clause Structure
 - API Spec Q1 Versus ISO 9001 Added Requirements Matrix
 - API Monogram Licensing and APIQR Registration Pathways
 - Top Management Responsibilities and Quality Objectives Deployment
 - Current-State Q1 Readiness Checklist for an Equipment Shop
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Day 2: Context, Risk, Contingency and Change Controls

- Context Analysis and Interested Party Requirements Register
- Risk Assessment and Treatment Using a Q1 Risk Register
- Contingency Planning for Supply Disruption and Equipment Breakdown
- Management of Change Notification and Approval Workflow
- Documented Information Control and Record Retention Matrix

Day 3: Design, Purchasing, Outsourcing and Production Controls

- Design and Development Planning, Verification and Validation Records
- Critical Purchase Criteria and Approved Supplier List Evaluation
- Outsourced Activity Control Agreements and Verification Methods
- Product Quality Plan and Traceability Through Production
- Calibration and Preventive Maintenance of Measuring and Production Equipment

Day 4: Inspection, Nonconformance, Internal Audit and Licensing Audits

- Inspection and Test Plan with Hold and Witness Points
- Nonconforming Product Disposition and Release Under Concession
- Root Cause Analysis and Corrective Action Effectiveness Checks
- Q1 Internal Audit Programme and Management Review Inputs
- Licensing Audit Preparation and Common Finding Patterns

Day 5: Case Study: Q1 Gap Assessment and Implementation Plan

- Case Manufacturer Profile and Document Set Review
- Q1 Gap Assessment Worksheet Completion
- Evidence Trace of One Order from Contract Review to Delivery
- Q1 Gap Assessment and Implementation Plan Drafting
- Implementation Plan Defence Before a Mock Licensing Audit Panel

Skills You Will Gain:

- Q1 Requirements Interpretation
 - Operational Risk Registers
 - Contingency Planning
 - Management of Change Control
 - Critical Supplier Qualification
 - Inspection and Test Planning
 - Nonconformance Disposition
 - Licensing Audit Readiness
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Why Attend This Course:

- Leave with a Q1 Gap Assessment and Implementation Plan for a case manufacturer, defended before a mock audit panel
- See exactly where an ISO 9001 system falls short of API Spec Q1 and what evidence closes each gap
- Trace one order end to end the way a licensing auditor does, before the auditor arrives
- Compare supplier, outsourcing and change practices with peers from manufacturing and service companies

Conclusion:

API Spec Q1 asks equipment manufacturers and service providers to show, with records, that risk, contingency, change, suppliers and product conformity are controlled. The week moves from the structure of the specification and its differences from ISO 9001, through risk and change controls, design, purchasing, outsourcing and production, to inspection, nonconformance, internal audit and licensing audits. The final day applies every requirement to a case manufacturer and produces a Q1 Gap Assessment and Implementation Plan ready to guide a real implementation.
