

Course No. 1360

*** Operational Readiness & Start-up Assurance Training Course**

**COMMISSIONING, START-UP & SHUTDOWN & OPERATIONAL
READINESS
INDUSTRIAL ENGINEERING, MAINTENANCE & OPERATIONS**

DURATION

5 Days

DELIVERY

Classroom



Course Overview

The Operational Readiness & Start-up Assurance Training Course is a specialized professional program designed to equip project, operations, engineering, maintenance, commissioning, and management professionals with the knowledge and practical skills required to prepare organizations, facilities, systems, people, and processes for safe and effective start-up. The course provides a structured approach to operational readiness, ensuring that the transition from project execution and commissioning into routine operations is controlled, verified, and aligned with organizational objectives.

Operational readiness is a critical component of successful project delivery because a technically complete facility does not automatically guarantee that the organization is prepared to operate it safely and effectively. Personnel must be trained, procedures must be available, maintenance strategies must be established, spare parts and resources must be ready, systems must be verified, and operational risks must be addressed before start-up. A structured readiness approach helps organizations identify gaps before they affect production, safety, reliability, or business continuity.

The program covers the complete operational readiness lifecycle, including readiness strategy, organizational preparation, staffing and competency requirements, operating procedures, maintenance readiness, materials and spare parts, system completion, commissioning interfaces, safety and emergency preparedness, information and documentation, performance verification, and start-up assurance. Participants will learn how to establish readiness criteria, conduct structured reviews, track gaps, assign actions, and verify closure before authorization to start operations.

Particular attention is given to the integration of project and operational teams. The course examines how engineering, construction, commissioning, operations, maintenance, supply chain, quality, inspection, information management, and health and safety functions can work together to achieve a controlled transition into service. Participants will also explore readiness governance, assurance processes, decision gates, risk-based prioritization, management of change, and escalation of unresolved issues.

Through practical exercises, case studies, readiness assessments, workshops, and start-up scenarios, the Operational Readiness & Start-up Assurance Training Course enables participants to build practical readiness frameworks and implementation plans. The program supports organizations in improving start-up confidence, strengthening operational preparedness, reducing

transition risks, improving project handover, and establishing a sustainable foundation for safe and reliable operations.

Objectives

- Analyze the key principles, phases, and assurance requirements of operational readiness and start-up preparation throughout the training program.
- Develop an integrated operational readiness strategy covering people, processes, systems, facilities, documentation, maintenance, and support services.
- Evaluate organizational readiness against defined operational, technical, safety, maintenance, and performance criteria before start-up.
- Apply structured readiness assessment methods to identify, prioritize, and track gaps and outstanding actions.
- Design practical readiness checklists, review frameworks, decision gates, and reporting mechanisms to support start-up assurance.
- Improve coordination between project, engineering, commissioning, operations, maintenance, supply chain, quality, and safety functions.
- Strengthen workforce readiness by identifying competency, staffing, training, role, and operational responsibility requirements before start-up.
- Implement systematic methods for verifying operating procedures, maintenance strategies, spare parts, tools, documentation, and support systems.
- Assess operational and start-up risks and develop appropriate mitigation, contingency, and escalation measures.
- Align commissioning completion, system handover, operational readiness, and start-up authorization requirements into a coordinated process.
- Develop effective approaches for managing readiness changes, incomplete actions, technical issues, and unresolved operational risks.
- Evaluate overall readiness and prepare evidence-based recommendations to support safe transition into operations.

Who Should Attend

This course is designed for operations managers, operational readiness managers, commissioning managers, project managers, engineering managers, maintenance managers, production managers, reliability professionals, operations engineers, maintenance engineers, process engineers, commissioning engineers, project engineers, and technical specialists involved in preparing facilities and organizations for start-up and operational handover. It is particularly relevant to professionals working in oil and gas, energy, petrochemical, manufacturing, utilities, industrial processing, infrastructure, and other asset-intensive environments.

The program is also suitable for quality managers, health and safety professionals, asset management specialists, project controls professionals, supply chain and materials personnel, document control and information management teams, training and competency professionals, system completion specialists, and operational assurance personnel. It provides significant value to department heads, senior managers, executives, and decision makers responsible for approving readiness, managing project-to-operations transition, and ensuring that facilities can be operated safely and effectively from the start.

Government entities, ministries, public sector organizations, energy companies, industrial corporations, utilities, and large-scale project organizations can use this training to establish consistent operational readiness practices for new facilities, expansions, modernization projects, major upgrades, and other initiatives requiring structured transition into operation.

Learning Outcomes

- By the end of the course, participants will be able to:
- Explain the relationship between operational readiness, commissioning, start-up, project completion, and operational performance.
- Develop an operational readiness framework covering organizational, technical, procedural, and support requirements.
- Define clear readiness criteria and evidence requirements for major operational areas.
- Conduct structured readiness reviews and identify gaps affecting safe and effective start-up.
- Develop action plans for closing readiness gaps and monitor progress through defined assurance controls.

- Evaluate workforce readiness, staffing requirements, competency needs, training programs, and role responsibilities.
- Verify the availability and suitability of operating procedures, maintenance strategies, technical documents, and operational information.
- Assess readiness of spare parts, tools, materials, workshops, support services, and supply chain arrangements.
- Integrate commissioning and system completion information into operational readiness and start-up decisions.
- Identify and manage operational, technical, safety, organizational, and interface risks before start-up.
- Prepare readiness reports, assurance evidence, management summaries, and decision recommendations for start-up authorization.
- Develop a practical operational readiness and start-up assurance plan for implementation within a real project or operating environment.

Course Outline

DAY 01

Operational Readiness Strategy and Assurance Framework

- Fundamentals of operational readiness and start-up assurance
- Operational readiness within the project and asset lifecycle
- Transition from project execution to operational ownership
- Operational readiness strategy, objectives, governance, and responsibilities
- Defining readiness categories, criteria, evidence, and decision gates
- Integration of project completion, commissioning, and operational preparedness
- Identification of critical operational systems and readiness priorities
- Roles of operations, engineering, commissioning, maintenance, safety, and support functions
- Readiness assurance reporting and management visibility

PRACTICAL APPLICATION

Developing an operational readiness framework for a major facility

DAY 02**People, Organization, Procedures, and Competency Readiness**

- Organizational readiness and operating model preparation
- Workforce planning and staffing requirements
- Defining operational roles, responsibilities, and accountabilities
- Competency assessment and training requirements
- Shift organization and operational coverage
- Development and verification of operating procedures
- Emergency procedures and response readiness
- Control room and field operating requirements
- Management of operational information and technical documentation

PRACTICAL APPLICATION

Conducting a workforce and procedural readiness assessment and developing gap-closure actions

DAY 03**Asset, Maintenance, and Support System Readiness**

- Equipment and asset readiness for start-up
- Integration of mechanical completion and system handover
- Maintenance readiness and preventive maintenance requirements
- Reliability considerations before operational handover
- Spare parts, tools, consumables, and materials readiness
- Maintenance management systems and asset information
- Inspection, testing, calibration, and certification readiness
- Utilities, workshops, facilities, and technical support readiness
- Supply chain and logistics support for initial operations

CASE STUDY

Evaluating asset and maintenance readiness for a new industrial facility

DAY 04**Start-up Risk, Assurance, and Readiness Verification**

- Identifying operational readiness and start-up risks
- Risk-based prioritization of readiness gaps
- Process safety and operational risk considerations
- Permit-to-work, isolation, and safe start-up requirements
- Management of Change and readiness implications
- Readiness reviews, verification activities, and assurance evidence
- Managing incomplete work and unresolved technical issues
- Escalation, decision-making, and authorization requirements
- Readiness dashboards, status reporting, and management review

PRACTICAL APPLICATION

Conducting a start-up readiness review and developing a risk-based action plan

DAY 05**Start-up Authorization, Operational Stabilization, and Continuous Improvement**

- Final operational readiness assessment
- Verification of critical readiness requirements and evidence
- Start-up authorization and decision-making principles
- Handover from project and commissioning teams to operations
- Monitoring operational performance during initial start-up
- Managing early operational issues and stabilization activities
- Final closure of readiness actions and outstanding items
- Post-start-up review and performance assurance
- Lessons learned and continuous improvement of readiness processes
- Integration of operational readiness with asset management and long-term performance
- Best practices for sustaining operational readiness across future projects

DAY 05 — CONTINUED

FINAL WORKSHOP

Developing a complete Operational Readiness & Start-up Assurance Plan covering governance, people, procedures, assets, maintenance, risks, verification, authorization, handover, and operational stabilization

Register or Request More Information

Course page: <https://quest-training.com/courses/operational-readiness-start-up-assurance-training-course>

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