

Industrial Plant Inspection and Condition Assessment Training Course

27 June – 1 July 2027
Cape town

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Training Center

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Ref: 2071_251866 **Date:** 27 June – 1 July 2027 **Location:** Cape town **Fees:** 6000 Euro

Overview

Industrial Plant Inspection and Condition Assessment Training Course is a one-week course for plant inspectors, maintenance engineers, reliability technicians, operations supervisors, and asset integrity personnel who leave with a Plant Inspection Control Pack. Participants build an inspection workflow that connects asset criticality, degradation evidence, visual examination, condition assessment, specialist NDT coordination, risk-based prioritization, reporting, and corrective-action follow-up. Agile Leaders Training Center develops practical industrial plant inspection capability.

Who Should Attend

- Inspection functions responsible for plans, checklists, field observations, evidence, and reports
- Maintenance functions responsible for equipment condition, work requests, repair coordination, and closeout
- Reliability functions responsible for criticality, degradation trends, failure prevention, and asset history
- Operations functions responsible for access, operating context, abnormalities, isolation, and safe handover
- Asset integrity functions responsible for inspection governance, specialist review, and action prioritization

The course assumes participants can read equipment records and site procedures, and it leaves specialist NDT execution, engineering fitness-for-service calculations, and certification preparation outside scope.

Departments and Industries

The course supports departments and industries that inspect and maintain operating plant assets.

- Process plant inspection, maintenance, reliability, and asset integrity departments
- Oil, gas, refining, petrochemical, and chemical processing facilities
- Power generation, utilities, water treatment, and desalination plants
- Metals, cement, food processing, and general manufacturing operations
- Engineering support, shutdown planning, and technical assurance teams

Learning Objectives

By the end of this course, participants will be able to:

- Build an inspection scope from asset registers and criticality.
- Apply visual inspection and condition assessment checklists.
- Analyze degradation evidence and classify inspection findings.
- Compare NDT methods and coordinate specialist examinations.
- Prioritize findings using risk-based inspection principles.
- Build traceable reports and corrective-action follow-up records.

Course Agenda

Day 1: Establish Inspection Governance

- Asset Register and Equipment Boundary Map
- Inspection Responsibility and Escalation Matrix
- Asset Criticality Screening Method
- Inspection History and Data Quality Review
- Plant Inspection Scope Statement

Day 2: Recognize Degradation Evidence

- Damage Mechanism Screening Guide
- Corrosion and Erosion Indicator Checklist
- Leakage, Distortion, Cracking, and Vibration Evidence Map
- Fixed and Rotating Equipment Inspection Points
- Piping, Supports, Valves, and Insulation Condition Sheet

Day 3: Conduct Condition Assessment

- Visual Examination Route and Field Checklist
- Measurement Location and Repeatability Plan
- Photographic Evidence and Defect Marking Method
- NDT Method Selection and Specialist Coordination Matrix
- Finding Classification and Safe Escalation Criteria

Day 4: Prioritize and Report Findings

- Risk-Based Inspection Likelihood and Consequence Screen
- Condition Rating and Priority Matrix
- Inspection Report Evidence Structure
- Corrective Work Request and Ownership Record
- Reinspection Interval and Closeout Decision Log

Day 5: Practice Plant Inspection Control

- Suggested Exercise: Build an Asset Criticality Screen
- Suggested Exercise: Classify Degradation from Field Evidence
- Suggested Exercise: Select NDT Coordination Actions
- Suggested Exercise: Prioritize Findings and Draft a Report
- Capstone Exercise: Present a Plant Inspection Control Pack

Practical Exercises

The course uses suggested activities based on inspection evidence from process and manufacturing plants.

- Suggested activity: convert an asset list and operating context into a prioritized inspection scope.
- Suggested activity: identify degradation indicators in photographs, sketches, trends, and maintenance history.
- Suggested activity: choose specialist examination support and define evidence, access, and reporting requirements.
- Suggested activity: classify findings, assign actions, and create a traceable closeout record.

FAQs

Who suits industrial plant inspection training, and what does it assume?

Industrial plant inspection training suits inspection, maintenance, reliability, operations, and integrity personnel who already use equipment records and site procedures.

How does plant condition assessment differ from process plant troubleshooting?

Plant condition assessment evaluates physical evidence, degradation, and integrity actions, while process plant troubleshooting isolates causes of operating performance problems.

What evidence supports an industrial plant inspection finding?

Useful evidence combines location, equipment identity, operating context, photographs, measurements, observed damage, history, uncertainty, and the required escalation or follow-up action.

When should plant inspection involve an NDT specialist?

Specialist support is needed when the inspection question requires a qualified examination method, controlled procedure, calibrated equipment, interpretation competence, or formal acceptance criteria.

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Conclusion

Participants take a Plant Inspection Control Pack back to their organization. It combines the inspection scope, criticality screen, field checklist, degradation guide, NDT coordination matrix, priority model, report structure, and action log. The pack turns observations into traceable condition decisions and follow-up work.