

Process Plant Equipment Inspection & Repair Techniques

Oil, Gas & Energy Industry Specialization
Maldives (Maldives)
01 - 12 Dec 2025

UK Traininig

PARTNER

A large, stylized image of chess pieces on a checkered board. In the foreground, a large gold king piece stands prominently. To its left are two silver pawn pieces. The background features concentric circles and a checkered pattern, suggesting a strategic or competitive theme.

Process Plant Equipment Inspection & Repair Techniques

Ref: 321587_141386 **Date:** 01 - 12 Dec 2025 **Location:** Maldives (Maldives) **Fees:** 7900 Euro

Course Description

This intensive 10-day course provides comprehensive training on the inspection, evaluation, and repair of process plant equipment and connected piping. Participants will gain in-depth knowledge of industry standards, best practices, and cutting-edge techniques for maintaining plant integrity and reliability. The course covers a wide range of topics, from basic inspection methods to advanced repair strategies, equipping attendees with the skills needed to enhance plant safety and efficiency.

Learning Objectives

- Understand and apply industry codes and standards for equipment inspection and repair
- Master various inspection techniques and their appropriate applications
- Develop skills in evaluating equipment condition and determining fitness-for-service
- Learn effective repair and alteration methods for process plant equipment and piping
- Gain proficiency in risk-based inspection and maintenance planning
- Enhance decision-making skills for equipment lifecycle management

Course Modules

Day 1: Introduction to Process Plant Equipment Integrity

- Overview of process plant equipment and piping systems
- Importance of equipment integrity in plant safety and reliability
- Introduction to industry codes and standards ASME, API
- Basic principles of equipment lifecycle management

Day 2: Inspection Techniques and Tools

- Visual inspection methods and best practices
- Non-destructive testing NDT techniques
- Advanced inspection technologies e.g., drones, robotics
- Inspection data collection and management

Day 3: Corrosion and Degradation Mechanisms

- Common corrosion types in process plants
- Material degradation mechanisms
- Corrosion monitoring techniques
- Corrosion prevention and control strategies

A graphic of a chessboard with several chess pieces (king, queen, rook, knight, and pawns) in gold and silver. The text 'UK Training PARTNER' is overlaid on the board.

UK Training
PARTNER

Day 4: Risk-Based Inspection RBI

- Principles of risk-based inspection
- RBI methodologies and implementation
- Developing and managing an RBI program
- Case studies in RBI application

Day 5: Fitness-for-Service FFS Assessment

- Introduction to FFS concepts and methodologies
- API 579/ASME FFS-1 standards overview
- FFS assessment techniques for common damage mechanisms
- Practical examples and case studies

Day 6: Piping Inspection and Evaluation

- Piping system components and failure modes
- Inspection techniques for piping systems
- Evaluation of piping condition and remaining life
- Piping flexibility analysis and stress assessment

Day 7: Pressure Vessels and Storage Tanks

- Inspection and evaluation of pressure vessels
- Storage tank inspection techniques
- Fitness-for-service assessment for vessels and tanks
- Repair and alteration considerations

Day 8: Rotating Equipment Inspection

- Inspection techniques for pumps, compressors, and turbines
- Vibration analysis and monitoring
- Lubrication system inspection and maintenance
- Alignment and balancing considerations

Day 9: Repair and Alteration Techniques

- Welding repair methods and considerations
- Mechanical repair techniques
- Composite repairs for piping and equipment
- Quality control in repair and alteration projects

Day 10: Maintenance Planning and Management

- Developing effective maintenance strategies
- Shutdown planning and execution
- Root cause analysis of equipment failures

A graphic of a chessboard with several chess pieces (king, queen, rook, knight, and pawns) in gold and silver. The text 'UK Training PARTNER' is overlaid on the board.

UK Training
PARTNER

- Continuous improvement in maintenance practices

Practical Wins for Participants

- Ability to develop and implement risk-based inspection programs
- Skills to perform fitness-for-service assessments on damaged equipment
- Knowledge to make informed decisions on equipment repair vs. replacement
- Capability to enhance plant reliability and reduce unplanned downtime

A graphic illustration of a chessboard with several chess pieces. A large gold king piece is prominent in the foreground, with a silver pawn and a silver knight nearby. In the background, there are concentric circles emanating from a point, suggesting a strategic or analytical theme.

UK Training
PARTNER

Blackbird training cities



Amman (Jordan)



Amsterdam (Netherlands)

Accra (Ghana)

Annecy (France)

Baku (Azerbaijan)

Bali (Indonesia)

Bangkok (Thailand)

Bangkok (Thailand)

Barcelona (Spain)

Batumi (Georgia)

Beijing (China)

Beirut (Lebanon)

Berlin (Germany)

Birmingham (UK)

Bordeaux (France)

Boston, Massachusetts (USA)

Brussels (Belgium)

Cairo (Egypt)

Cape Town (South Africa)

Casablanca (Morocco)

Cascais (Portugal)

Copenhagen (Denmark)

Doha (Qatar)

Dubai (UAE)

Düsseldorf (Germany)

UK Training
PARTNER



Blackbird Training Category



Human Resources Management



Audit & Quality



Finance, Economics & Markets



Marketing, Sales & Negotiation



Secretary & Admin



Governance, Risk, & Compliance (GRC)



Project Management



Technology & Digital Transformation



Procurement, Contracts & Supply Chain



Leadership & Management Development



Professional Skills & Career Enhancement



Oil, Gas & Energy Industry Specialization



Healthcare & Safety Management



Telecom Engineering



Hospital Management



Customs Management & Global Trade Compliance



Aviation, Transportation & Logistics



Board Members & C-Suite Development



Agile and Refinement



Business Strategy & Competitive Analysis

Operational Risk Management



Blackbird training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior
Kingdom of Saudi Arabia
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



Authority for

UK Training
PARTNER



LONDON TRAINING PROVIDER



www.blackbird-training.com



training@blackbird-training.com



+44 7480 775526 / +44 7401 177335