

Hydropower Plants Maintenance

Paris (France)

27 - 31 October 2025

UK Traininig

PARTNER



Hydropower Plants Maintenance

Code: OG28 From: 27 - 31 October 2025 City: Paris (France) Fees: 5100 Pound

Introduction

Hydropower plants play a pivotal role in sustainable energy production. Effective maintenance is a key factor in ensuring the operational efficiency, reliability, and longevity of these plants. This training program provides in-depth knowledge and practical skills for maintaining various components of hydropower plants, focusing on modern techniques, preventive maintenance strategies, and troubleshooting methods.

Course Objectives

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

- Understand the structure and function of hydropower plants.
- Identify common maintenance needs and strategies.
- Apply preventive and corrective maintenance techniques.
- Diagnose and resolve common operational problems.
- Enhance overall operational efficiency and safety in hydropower plants.

Course Outlines

Day 1: Overview and Fundamentals

- Introduction to hydropower and types of plants.
- Basic components and principles of operation.
- Importance of maintenance in hydropower plants.
- Overview of preventive versus corrective maintenance.
- Health, safety, and environmental considerations.

Day 2: Mechanical Systems Maintenance

- Turbines: types, functions, and common issues.
- Bearings and shaft alignment techniques.
- Maintenance of gates, penstocks, and valves.
- Lubrication systems: importance and maintenance procedures.
- Vibration monitoring and fault diagnosis.

Day 3: Electrical Systems Maintenance

- Generators: construction and maintenance practices.
- Transformers: inspection and testing.
- Switchgear and protection systems.
- Overview of control and automation systems.
- Troubleshooting and repairing electrical faults.



Day 4: Civil Works and Auxiliary Systems Maintenance

- Inspection and maintenance of dams and reservoirs.
- Maintenance of water conveyance systems.
- Cooling and ventilation systems.
- Fire protection and alarm systems.
- Management of sedimentation and debris.

Day 5: Maintenance Management and Case Studies

- Planning and scheduling maintenance activities.
- Condition monitoring and predictive maintenance.
- Spare parts management and inventory control.
- Failure analysis and root cause investigation.
- Case studies and sharing best practices.

Why Attend this Course: Wins & Losses!

- Gain comprehensive knowledge of maintaining all components of hydropower plants, from mechanical and electrical systems to civil works and auxiliary systems.
- Learn modern maintenance strategies like preventive and predictive maintenance, which help reduce downtime and improve efficiency.
- Develop the skills to diagnose and resolve common operational issues, ensuring the continued smooth operation of hydropower plants.
- Apply best maintenance practices through case studies and practical insights.
- Improve operational efficiency and reliability of plants, supporting the growth of sustainable energy production.

Conclusion

By the end of this training program, participants will have gained comprehensive knowledge in all aspects of hydropower plant maintenance, from mechanical and electrical components to civil works and auxiliary systems. They will be capable of applying modern maintenance strategies to enhance operational efficiency and ensure the safe, continuous operation of the plants.

This program will empower them to implement professional maintenance plans, minimize downtime, and increase the reliability of energy production, supporting sustainability and meeting the growing demand for clean energy.



Blackbird Training Cities

Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Annecy (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)



Podgorica (Montenegro)



Batumi (Georgia)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Athens (Greece)



Barcelona (Spain)



Munich (Germany)



Geneva



Prague (Czech)



Vienna



Rome (Italy)



Brussels



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich



Manchester (UK)



Milan (Italy)



Blackbird Training Cities

USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

ASIA



Bangkok
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Melbourne
(Indonesia)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City (Kuwait)



Pulau Ujong (Singapore)



Jakarta



Amman (Jordan)



Beirut



Blackbird Training Cities

AFRICA



Kigali (Rwanda)



Cape Town



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



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,
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



Blackbird Training Categories

Management & Admin

Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training



 International House 185 Tower Bridge
Road London SE1 2UF United Kingdom

 +44 7401 1773 35
+44 7480 775526

 Sales@blackbird-training.com

 www.blackbird-training.com

