Global Horizon
TRAINING CENTER

Training Course:
Electrical Safety Techniques for Industry

13 - 17 September 2026
Dubai (UAE)

Training Course:
Electrical Safety Techniques for Industry

Training Course code: EN236623 From: 13 - 17 September 2026 Venue: Dubai (UAE) - Training Course Fees: 5830 Euro

Introduction

Electrical systems are essential to modern industrial operations, but they also present significant hazards to personnel, equipment, and facilities. Electric shock, arc flash, arc blast, electrical fires, improper isolation, inadequate grounding, and unsafe maintenance practices can result in serious injuries, equipment damage, production interruptions, and substantial organizational losses.

This training program, designed by Global Horizon Training Center, provides participants with a comprehensive understanding of electrical safety principles and practical techniques applicable to industrial environments. The program focuses on recognizing electrical hazards, assessing risks, establishing safe working conditions, implementing electrical isolation procedures, and applying appropriate preventive and protective measures.

Participants will develop a systematic understanding of electrical safety practices related to industrial equipment, switchgear, motors, transformers, distribution systems, maintenance activities, grounding, personal protective equipment, and emergency response. Particular attention is given to safe work procedures, Lockout/Tagout LOTO, arc-flash awareness, electrical risk assessment, and the responsibilities of personnel working with or near electrical systems.

The program aims to strengthen the organization's electrical safety culture while providing personnel with the knowledge required to prevent electrical incidents and maintain safer industrial operations.

Objectives

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

- Understand fundamental electrical safety principles.
- Identify common electrical hazards in industrial environments.
- Recognize the causes and consequences of electric shock.
- Understand arc-flash and arc-blast hazards.
- Conduct basic electrical hazard identification and risk assessment.
- Apply appropriate electrical safety precautions.
- Understand safe isolation and de-energization procedures.
- Apply Lockout/Tagout LOTO principles effectively.
- Understand grounding, earthing, and bonding requirements.
- Recognize electrical fire hazards and appropriate preventive measures.

- Understand the selection and use of electrical Personal Protective Equipment PPE.
- Apply safe working practices around electrical equipment.
- Understand safe approaches to electrical inspection and maintenance.
- Respond appropriately to electrical emergencies.
- Support compliance with organizational electrical safety procedures.
- Contribute to a stronger electrical safety culture within the workplace.

Course Methodology

The program uses an interactive and application-focused approach combining electrical safety principles with industrial examples and risk-based scenarios.

The methodology includes:

- Instructor-led technical presentations.
- Electrical hazard illustrations and examples.
- Industrial safety scenarios.
- Electrical risk assessment exercises.
- Review of safe work procedures.
- LOTO procedure analysis.
- Electrical incident and accident case studies.
- PPE selection discussions.
- Hazard identification exercises.
- Emergency response scenarios.
- Group discussions and knowledge reviews.

Organizational Impact

Successful implementation of the knowledge gained from this program can contribute to:

- Reduction of electrical incidents and workplace injuries.
- Improved electrical hazard identification and risk management.

- Stronger implementation of electrical isolation and LOTO procedures.
- Improved protection of employees, contractors, and equipment.
- Reduction in electrical-related downtime and operational disruption.
- Improved electrical maintenance safety practices.
- Increased awareness of arc-flash and electric-shock hazards.
- Improved selection and use of appropriate PPE.
- Stronger compliance with organizational safety requirements.
- Better coordination between operations, maintenance, engineering, and HSE teams.
- Improved emergency preparedness for electrical incidents.
- Development of a proactive electrical safety culture.

Target Audience

This training program is suitable for:

- Electrical Engineers
- Electrical Technicians
- Maintenance Engineers and Technicians
- Electrical Maintenance Supervisors
- HSE Engineers and Officers
- Safety Supervisors
- Plant Engineers
- Facility Engineers
- Operations Engineers and Supervisors
- Reliability Engineers
- Project Engineers
- Industrial Maintenance Personnel
- Electrical Contractors and Supervisors
- Facility and Asset Management Personnel

- Technical Managers
- Personnel working with or near electrical equipment and installations

Course Outline

Day 1 - Electrical Safety Fundamentals & Hazard Recognition

- Fundamentals of electricity and electrical safety
- Common electrical hazards in industrial environments
- Electric shock and physiological effects
- Direct and indirect electrical contact
- Electrical burns and secondary injuries
- Factors affecting severity of electrical accidents
- Electrical hazard identification
- Fundamentals of electrical risk assessment
- Electrical safety responsibilities and safe behavior

Day 2 - Arc Flash, Arc Blast & Electrical Fire Safety

- Understanding arc-flash hazards
- Causes and consequences of arc-flash incidents
- Arc-blast pressure and associated hazards
- Electrical equipment associated with arc-flash risks
- Approach boundaries and restricted work areas
- Electrical fire hazards and common causes
- Overloads, short circuits, and overheating
- Electrical fire prevention principles
- Safe response to electrical fires

Day 3 - Safe Isolation, LOTO & Maintenance Safety

- Principles of electrical isolation

- Energized versus de-energized work
- Safe shutdown and isolation procedures
- Lockout/Tagout LOTO fundamentals
- Verification of isolation
- Testing for absence of voltage
- Stored electrical energy and its hazards
- Safe electrical maintenance practices
- Permit-to-work considerations
- Re-energization and restoration of equipment

Day 4 - Grounding, PPE & Protective Measures

- Fundamentals of grounding and earthing
- Protective grounding and bonding
- Ground-fault hazards
- Grounding-related safety problems
- Electrical protective devices
- Circuit breakers, fuses, and residual-current protection
- Electrical Personal Protective Equipment PPE
- Selection and limitations of PPE
- Insulated tools and protective equipment
- Inspection and care of electrical safety equipment

Day 5 - Electrical Safety Management & Emergency Response

- Electrical safety procedures and work practices
- Electrical safety inspections
- Hazard reporting and corrective actions
- Contractor electrical safety

- Electrical incident prevention techniques
- Emergency response to electrical incidents
- Safe rescue considerations
- Response to electric shock incidents
- Electrical incident reporting and investigation
- Lessons learned from electrical incidents
- Building an effective electrical safety culture
- Course review and key learning outcomes

Registration form on the Training Course: Electrical Safety Techniques for Industry

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....
Position: .....
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Person Responsible for Training and Development

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Payment Method

☐ Please find enclosed a cheque made payable to Global Horizon

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Easy Ways To Register

Telephone: +201095004484 to provisionally reserve your place.	Fax your completed registration form to: +20233379764	E-mail to us : info@gh4t.com or training@gh4t.com	Complete & return the booking form with cheque to:Global Horizon 3 Oudai street, Aldouki, Giza, Giza Governorate, Egypt.