



*Training Course:  
Cleaning Network and Line Equipment (400/220)*

*11 - 22 May 2025*

*Cairo (Egypt)*

*Holiday Inn & Suites Cairo Maadi, an IHG Hotel*

## Training Course: Cleaning Network and Line Equipment (400/220)

Training Course code: EN235690 From: 11 - 22 May 2025 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 6600 € Euro

### Introduction

This program is designed to provide specialized knowledge and hands-on skills for safely cleaning and maintaining network and line equipment operating at 400/220 kV. Participants will learn essential practices for ensuring system reliability, minimizing outages, and maintaining high standards of occupational safety and electrical security.

### Objectives

- Understand the operational principles of 400/220 kV network and line equipment.
- Identify safe cleaning methods and materials for high-voltage systems.
- Implement best practices to maintain equipment efficiency and prevent contamination.
- Learn the importance of coordination and planning in cleaning operations.
- Adhere to safety protocols and regulatory standards.

### Target Audience

- Electrical maintenance engineers and technicians.
- Substation and transmission line operators.
- Safety officers in electrical utilities.
- Professionals responsible for high-voltage equipment maintenance.

### Outlines

#### Day 1: Overview of High-Voltage Network Equipment

- Introduction to 400/220 kV network and line equipment.
- Function and significance of transformers, insulators, and circuit breakers.
- Effects of contamination and pollution on equipment performance.

#### Day 2: Contamination Types and Effects

- Understanding various contaminants dust, oil, salt, etc..
- Impact of contamination on high-voltage equipment.
- Methods to assess contamination levels.

#### Day 3: Cleaning Principles and Techniques

- Fundamentals of cleaning high-voltage equipment.
- Wet and dry cleaning methods.
- Selecting appropriate cleaning agents for different materials.

#### Day 4: Safety Measures in Cleaning Operations

- Electrical safety procedures for high-voltage systems.
- Lockout/tagout LOTO processes.
- Use of Personal Protective Equipment PPE in cleaning operations.

#### Day 5: Tools and Equipment for Cleaning

- Overview of cleaning tools e.g., brushes, air blowers, water jet systems.
- Inspection and maintenance of cleaning tools.
- Demonstration of tool usage for cleaning line and network equipment.

#### Day 6: Cleaning Substation Equipment

- Techniques for cleaning insulators, bushings, and transformers.
- Removing oil spills and other contaminants.
- Best practices for substation cleaning.

#### Day 7: Cleaning Overhead Lines and Towers

- Safe access and cleaning of transmission towers.
- Cleaning methods for conductors and insulators.
- Challenges and solutions in different environments e.g., urban, coastal.

#### Day 8: High-Voltage Cleaning Standards and Regulations

- Industry standards for cleaning operations.
- Regulatory compliance in cleaning 400/220 kV equipment.
- Case studies on non-compliance consequences.

#### Day 9: Planning and Coordination of Cleaning Activities

- Scheduling cleaning operations to minimize system downtime.
- Coordination with operations and safety teams.
- Documentation and reporting of cleaning activities.

#### Day 10: Inspection and Quality Assurance

- Post-cleaning inspection procedures.
- Ensuring cleaning quality and equipment reliability.
- Continuous improvement in cleaning practices.

## Registration form on the Training Course: Cleaning Network and Line Equipment (400/220)

**Training Course code:** EN235690 **From:** 11 - 22 May 2025 **Venue:** Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel **Training Course Fees:** 6600 € Euro

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

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
 Position: .....  
 Telephone / Mobile: .....  
 Personal E-Mail: .....  
 Official E-Mail: .....

### Company Information

Company Name: .....  
 Address: .....  
 City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
 Position: .....  
 Telephone / Mobile: .....  
 Personal E-Mail: .....  
 Official E-Mail: .....

### Payment Method

- Please find enclosed a cheque made payable to Global Horizon
- Please invoice me
- Please invoice my company

### 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.