

Training Title

APPLICATION OF EQUIPMENT ELECTRICAL SAFETY

Training Duration

05 Days

Training Date

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|-------|--|---|---------------------|---------|------------|
| EE100 | Application of Equipment Electrical Safety | 5 | 03 – 04 March, 2024 | \$5,500 | Dubai, UAE |
|-------|--|---|---------------------|---------|------------|

In any of the 5 star hotels as mentioned below. The exact venue will be informed once finalized.

1. DoubleTree by Hilton Hotel & Residences Dubai – Al Barsha

P.O. Box 72584, Dubai - United Arab Emirates
DoubleTree.com

2. Elite Bybloss Hotel

www.elitebybloshotel.com
P.O. Box 390531 Dubai - United Arab Emirates

3. MILLENNIUM PLAZA DOWNTOWN HOTEL DUBAI

23215 | Sheikh Zayed Rd | Trade Centre | Trade Centre 1 | Dubai, United Arab Emirates
W www.millenniumhotels.com

Training Fees

\$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch

Training Certificate

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

Language: English

www.definettraining.com

COURSE DESCRIPTION

This Application of Equipment Electrical Safety training seminar will take a closer look at the equipment installed in and electrical installation. Safety, security and reliability are the main attributes of all electrical equipment installed. It has to be well designed, installed and commissioned. A well-planned maintenance regime is essential to ensure safe operations and trouble-free electrical operations.

Competent workforce and sophisticated testing, measuring and diagnostic instruments are important to avoid system downtime. Distribution equipment plays an important role in the safe distribution of electrical power. Arc flash hazards analysis is vital to ensure that the

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equipment needs to be operated in a safe manner securing continuity of supply to consumers.

This training course focuses mainly on the operation and maintenance of distribution equipment like transformers, circuit breakers, protection relays and cables concerning auxiliary equipment necessary for its operation. This also includes new technologies incorporated in the transformers and circuit breakers.

OBJECTIVES:

Upon completion of this course, the participants will be able to:

- The need and management for maintenance
- Management and implementation of safe systems of work
- Co-ordination of maintenance activities and maintaining system safety
- Switchgear maintenance - transformer maintenance
- Cable installation and rating; condition monitoring using non-intrusive technology
- Routine inspections, properties of insulating oils

WHO SHOULD ATTEND:

- Electrical Professionals
- Electrical Engineers
- Technicians
- Professionals responsible for the operation and maintenance of distribution equipment, who will benefit from sharing experiences in the planning, Organisation, and implementation of maintenance activities

COURSE OUTLINES

DAY 1

- Introduction, Electric Hazards and Safety
- Goals and Discussion
- The Smart Grid Architecture
- Maintenance of Electrical Equipment
- Managing Maintenance
- Safety Culture
- Safety Integrity Level (SIL)
- Electrical Safety Rules
- Electrical Hazards and Emergencies

DAY 2

- Power Network Fundamentals and Systems Protection
- Power Network Fundamentals
- Faults and Protection
- Fault Levels for transformer

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- Types of the Protection Relay
- Numerical Relays
- Arc Flash Mitigation
- Importance of Earthing
- Network Earthing

DAY 3

- Power and Distribution Transformers Operations and Maintenance
- Transformer Characteristics
- Transformer Cooling and Protection
- On-load Tap Changer Operation
- Transformer Site Testing
- Transformer Maintenance
- Dry Transformer
- Gas Insulated Transformer (GIT)
- Ester base Oil for New Power and Distribution Transformers

DAY 4

- Circuit breakers, Switchgear and Condition Monitoring
- Circuit Breaker Ratings and Operation
- Circuit Breaker Examples
- Switchgear Maintenance
- Alternatives to SF6 Gas
- HV Vacuum Circuit Breakers
- Hybrid Outdoor Circuit Breakers
- Instruments for Partial Discharge Monitoring
- Instruments for Thermal Imaging and Corona Detection

DAY 5

- Gas-insulated Switchgear Common Voltage Cables Faults and Locating Methods
- Overview of Gas-insulated Switchgears
- Power Cables Construction and Characteristics
- Common Underground Cable Faults
- Cable Fault Locating
- Heat Shrink and Cold Shrink Cable Terminations and Joints
- LV Wiring and Cabling Systems
- Wrap-up Session

COURSE METHODOLOGY

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved.

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You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions

Case Studies, Group Discussions, Last Day Review, Assessments will be carried out.

MEETING ROOM PICTURES:



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