

Low Voltage Switchgear

Understanding the operation, maintenance, troubleshooting and application of low voltage distribution systems is critical for any facility. As industry becomes more dependent upon very high levels of uptime, understanding the operation and maintenance of the power distribution system is required.

Duration: 16 Hour Program

REVIEW OF BASIC ELECTRICAL SAFETY DESIGN & CONSTRUCTION OF LVSG

Diagram Analysis
LV Distribution Systems

CODES & STANDARDS

NEC
NFPA-70E
NEMA
NETA

SUBSTATION TRANSFORMERS

Construction
Label Plate Information
Delta and Wye Connected
Transformers
Calculating Voltages and Currents

OVERCURRENT PROTECTIONS

Long Time
Short Time
Instantaneous
Protective Zoning
Coordination

GROUND FAULT PROTECTION

Grounding and Ground Faults
Types of Ground Fault Protection
(Ground Strap, Zero Sequence,
Residual)

INSTRUMENTATION

Voltage Transformers
Current Transformers
Voltage Meters
Current Meters
Real, Reactive and Apparent Power
Synchrosopes

FUSES

Fuse Classifications
Fuse Ratings
Fuse Construction
Inspection and Cleaning
Trouble Shooting Fuse Problems

NETA MAINTENANCE TESTING SPECS

Visual and Mechanical Inspections
Electrical Tests
Instrument Transformers
Visual and Mechanical Inspections
Electrical Tests – Current Transformers
Electrical Tests – Voltage Transformers
Insulation Resistance Testing

HANDS ON DEMOS

Switchboard Lock-Out
Installing Personal Protective Grounds
Insulation Resistance Testing of
Buswork and Cables
CRAC unit LOTO
Component Identification and Testing