

Medium Voltage Distribution Systems: Electrical Safety, Operation and Maintenance



A DIVISION OF ECPI UNIVERSITY

NTT's Hands On Medium Voltage (MV) Training equips electricians, operators, reliability managers, and engineers with essential skills for operating and maintaining medium voltage distribution systems. This medium voltage training covers topics such as reading MV single-line diagrams, protective relaying, switching operations, cable and switchgear testing, required maintenance activities, and medium voltage safety.

Expert-led sessions emphasize the distribution system path from substation through utilization equipment, major component functions, and maintenance practices. This practical approach ensures participants leave with the skills and confidence to perform their duties safely and efficiently.

Delivered on-site at your facility or at the NTT facility, our **Hands-On Medium Voltage Course** provides a practical learning experience, bridging the gap between theory and real-world application.

WHAT THIS COURSE COVERS

- Major components of medium voltage distribution.
- Transformers, circuit breakers, switchgear operations and protective relays.
- Inspection and maintenance safety, PPE requirements, OSHA guidelines, and switching operations.
- NFPA 70B standards, electrical equipment testing, and routine maintenance tasks.
- Troubleshooting protective relay trips, analyzing common faults in medium voltage systems, and selecting the correct test equipment.
- Equipment and systems operating at 2,400v-69,000v as specified by ANSI C84.1 American National Standard for Power Systems and Equipment.

WHO SHOULD TAKE THIS

- Electricians operating 2,400v-69,000v equipment.
- Substation operators and maintenance personnel.
- Data Center operators.
- Reliability managers.
- Engineers and engineering technicians.
- MV-qualified electrical persons.

COURSE OUTCOMES

- Understand medium voltage systems.
- Identify the major components associated with medium voltage distribution.
- Understand dielectric oil test results.
- Identify the purpose of medium-voltage distribution components.
- Apply safety requirements for inspection and/or maintenance of medium voltage systems.
- Gain basic understanding of protective relays and relay settings.
- Troubleshoot and maintain medium voltage equipment.

HANDS-ON ACTIVITIES

- Install and remove personal protective grounds.
- Conduct cable insulation and high-potential (Hipot) tests and interpret results.
- Perform a vacuum bottle test as performed on circuit breakers.
- Perform Infrared surveys on MV Cable

Lecture Hands-on • **ONSITE:** 2-days (16 hours) • **LIVE ONLINE:** N/A



ONSITE - TRAINING TOUR - LIVE VIRTUAL - ONLINE - HANDS ON - AUDITS - CONSULTING - **TRAINED WORKERS. STRONGER COMPANIES.**
NTT TRAINING INC. • 1.800.922.2820 • www.nttinc.com • contact@nttinc.com