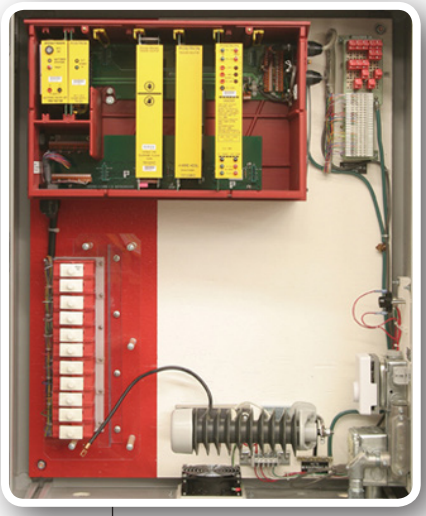
High Voltage Protection for Telecommunications

Instructor-LedTraining

High Voltage Protection for Telecommunications trains technicians, electricians, engineers, and management students on technical issues, industry standards, proper installation procedures, and safety awareness regarding the use of High Voltage Isolation (HVI) equipment for reliable critical telecommunication circuits in electric power plants, substations, cell sites on power structures, and 911 call centers.

These HV environments create Ground Potential Rise (GPR) conditions from lightning and power faults that can interrupt critical communications circuits, damage equipment, and cause injury to nearby workers.

This class covers the theory, practical applications, proper design, safe installation, and maintenance practices of Fiber Optic and Wireline High Voltage Isolation (HVI) equipment. The various isolator components are discussed, such as HV Isolation cabinets, power supplies, components, standalone units, and wiring concepts that make up a proper and safe HVI installations. The student also learns how to quickly recognize potential hazards and recommend corrective measures.



High Voltage Protection for Telecommunications – 2 day Instructor-Led

After completing this class, students will be able to:

- Explain why HVPT equipment is needed
- Apply protection equipment to critical telecommunications circuits for system reliability
- Discuss substation equipment associated with HVPT
- Explain Ground Potential Rise (GPR) and Zone of Influence (ZOI)
- Explain how touch and step potentials can occur and be avoided
- Describe how to properly design, install, and maintain high voltage isolation equipment
- Discuss the critical telecommunications circuits used in electric power applications
- Explain the proper use of MOV, gas tube, carbon blocks, and solid state shunt protectors
- Identify/resolve critical ac power supply reliability issues in integral telecom circuits
- Properly apply IEEE industry standards for copper and fiber cables entering HV environments
- Identify safety hazards in existing installations and address their correction
- Discuss safety awareness and proper use of personal protective equipment (PPE)

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