



Fault Location and Cable Testing

16 Hours

Who Should Attend?

This course will be of benefit to technicians, electricians, supervisors, field engineers, plant engineers and others with the responsibility for the testing and evaluation of the most common types of solid-dielectric power cables rated from 2.3kV to 15kV, as well as locating faults in underground cables.

Course Description:

Beginning with a brief overview of common power cable construction, students cover ac and dc test methods for evaluating cable condition and life forecasting. A variety of manufacturer's test equipment is used to test power cables and locate cable faults. Field exercises are used to allow students the opportunity to test cables and locate faults.

Outline:

- I. Introduction
 - A. Student introductions
 - B. Pre-Test
 - C. Safety
 - D. Cable construction and functions
 - E. Overview of power cable terminations
 - F. Common causes of cable faults
- II. Testing Power Cables
 - A. Objectives for testing
 - B. Dc tests
 - 1. Insulation resistance
 - 2. Over-potential
 - 3. Dielectric strength
 - 4. Methods of corona control
- III. Lab on DC Cable Testing
 - C. Safety precautions
 - D. Evaluating results
- IV. Fault Locating
 - A. Safety precautions
 - B. Types of fault locating equipment
 - 1. Thumpers and burners
 - 2. TDRs
 - 3. Arc-reflection technology
 - 4. Very-low frequency (VLF)
 - C. Evaluating test results
- V. Lab on Fault Locating

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