## Protective Relay Maintenance, Basic (PRMB)



Electromechanical protective relays in industrial distribution systems provide protection against overloads, faults and abnormal conditions. But, like any mechanical device, they are subject to deterioration over time that may cause component failure. NETA Maintenance and Testing standards recommend testing your relays at least once every 2 years. Proper testing and maintenance of single phase, single function protective relays ensures the integrity of the protection scheme, prevents nuisance tripping and minimizes damage to equipment and interruptions to the power system when faults do occur.

## **Who Should Attend**

This hands-on course is intended for electricians, technicians and engineers responsible for testing, maintenance and calibration of electromechanical protective relays that protect industrial feeders, transformers and loads.

## Learning Objectives

- Identify electromechanical relay components
- Interpret AC and DC relay schemes
- Perform as found/left tests and calibrate relays with the following functions (ANSI device number):
  Under voltage (27); Instantaneous Overcurrent (50); Time Overcurrent (51); Overvoltage (59);
  [Transformer] Differential (87T); [Bus] Differential (87B)
- Targets and Indicators
- Explain the application of these relay functions
- Utilize a relay test set to perform direct injection testing and interpret results

## Requirements

The student should have basic knowledge of AC/DC electricity. In addition, students must bring a scientific calculator. Technicians that successfully complete this course will be Certified to maintain electromechanical relays that protect industrial feeders, transformers and loads. This certification is valid for 3 years from the date of issue.

Protective Relay Maintenance, Basic Course Outline

Course Duration: 4.5 days

Credits: 3.6 CEUs

Level of Involvement: Hands-on

**Schedule:** 8:00am – 4:30pm, the final day ends at 12:00pm

Course Number: 137 Tuition USD: \$1745