

Dielectric Oil Testing and Power Transformer Technical State Assignment

Course Description:

This course is designed to ensure that those responsible for diagnosis, operation, Testing, maintenance and monitoring of power transformers understand the technical issues involved and comply with relevant specifications and requirements.

Course Objective

Upon completion of this course, the participant should be able to:

- Appreciate the technical options for diagnosis, Operation, and Testing of Power Transformers.
- Apply practices for Fault detection and location for Power Transformers.
- Perform routine & preventative Maintenance and testing of Power Transformers.
- Discuss the electrical testing performed on transformers such as insulation resistance testing, excitation and power factor testing.
- Discuss the various tests performed on insulating oil.

Who Should Attend?

Field and shop technicians, field engineers, supervisors and others responsible for the testing and maintenance of power transformers rated 750kVA to 500MVA and 4.16kV to 500kV

Course Duration: Five days

Course Outlines:

- **Transformer Principles**
- **Transformer Classifications**
- **Cooling**
- **Transformer Connections**
- **Transformer Maintenance**
- **The Insulation System**
- **Life Time of Transformer**
- **Transformer's Oil**
- **Measurement of Voltage Ratio and Check of Vector Relationship.**
- **Measuring of Winding Resistance**
- **Measuring of Impedance Voltage and Load Loss**
- **Dielectric Tests**
- **Temperature Rise Test**
- **Measurement of Zero Sequence Impedance**
- **Measurement of Voltage & Current Harmonics**
- **Measurement of Insulation Resistance**
- **Oil Immersed Transformers**
- **insulating oils field in new Power Transformer**
- **Oil Functions**
- **Incipient Fault Detection in Oil Immersed Transformer**

