LP Management Services, Inc.
Specializing in Safety, Health and Risk Management Consultation

Transformer Theory, Operation, & Maintenance

Transformers are the key link in any power distribution system and likely the least understood. With an understanding of the construction and maintenance of transformers, you will be able to make informed decisions about the performance and operation of this costly piece of equipment. This course provides a comprehensive overview of electrical transformers found in the industry. It is targeted to those involved in the installation, operation and maintenance of electrical power systems. The course is a fundamental course covering basic transformer theory, applications, construction, maintenance, and testing. Our instruction will provide the greatest possible exposure to transformer construction and maintenance that can be achieved in two days. Anyone who works on or near power generation, transmission, or distribution systems should attend this course. Additionally, supervisors, managers, safety personnel, and those responsible for ensuring a safe work environment should attend this course.

Duration: 8 Hour Program

BASIC TRANSFORMER THEORY
DC and AC Power Circuits
Reactive Circuits
Principles of Transformers
Three-Phase Power

CONSTRUCTION
Core, Windings and Enclosures
Cooling Methods
Tank Construction
Insulating Mediums

APPLICATIONS
Instrument Transformers
Distribution Transformers
Power Transformers
Special Purpose Transformers

NAMEPLATE DATA
General Information
Connection Diagrams

ACCESSORIES
Over current Protection
Instrumentation
Pressure Relief Devices
Tap-Changers

MAINTENANCE AND TESTING
Problems and Failures
Small Transformers
Dry-Type Transformers
Liquid-Filled Transformers
Power Factor Testing of Insulation
Transformer Turns Ratio (TTR)
Oil Sampling

SAFETY