Training Program:

Electrical Maintenance Management For Mechanical Supervisors

Introduction:

This course provides a solid understanding of the operation and maintenance of low voltage electrical equipment. Maximum emphasis is placed on safety, maintenance and testing practices, and cost-effective programs. The goal of this course is to give participants the knowledge to safely, effectively, and credibly manage electrical personnel.

Who Should Attend?

Electrical Engineers, Electrical Technicians, Electrical Inspectors, Electrical Professionals & Supervisors, Instrumentation and Design Engineers, Maintenance Engineers, Supervisors & Technicians, Energy Management Consultants, Control Engineers & Technicians, Automation & Process Engineers, Chemical & Mechanical Engineers, Consulting Engineers, Field Technicians, Graduate Engineers, Project and Production Managers, Project Engineers, Electronic Technicians, Plant Managers, Process Control Engineers, System Engineers, System Integrators, Testing Engineers & Technicians, Power System Engineers, Power System Technicians, Utility Engineers, Managers & Team Leaders of Engineering Departments, Safety

Professionals, Plant Electricians, Facilities Engineers, Operations & Maintenance Engineers, Supervisors & Technicians, Project Engineers, Commissioning & Testing Engineers, Consulting Engineers, Electrical Technologists, Facility & Plant Managers.

Course Objectives:

By the end of this course delegates will be able to:

- Understand how basic measurements are taken in an electrical circuit using a DMM
- Test electrical components and circuits using a DMM
- Understand the basic principles of electricity and how circuits operate
- Inspect and evaluate the construction and operation of electrical circuits
- Read and use electrical diagrams
- Inspect single phase electrical equipment installations
- Identify electrical circuit and system problems
- Recognize the damage electricity can cause to the human body, identify common causes and follow safe work practices and procedures
- Diagnose electrical circuit problems following proper methods and techniques
- Protect people, equipment, materials and the environment
- Test circuit safety, control and magnetic devices
- Inspect three phase equipment installations
- Understand cable construction and the methods to splice or terminate and test various types of cable
- Maintain disconnects and switchgear, dry type transformers, IT's and fuses
- Maintain air & molded case circuit breakers and air & molded case circuit breakers
- Understand the principles of co-ordination of protective devices
- Maintain motors, starters, VSD's, generators, and back-up systems

- Determine severity of potential exposure to arc flash hazards, plan safe work practices and select proper personal protective equipment Learn about regular periodic inspection and planned maintenance for safe operation of electrical equipment

Course Outline

- Test electrical circuits
- Test electrical components
- Apply electrical fundamentals
- Operate electrical systems
- Interpret electrical diagrams
- Inspect single phase equipment
- Identify electrical problems
- Identify electrical hazards
- Identify system faults
- Maintain protective systems
- Test safety and control devices
- Inspect three phase equipment
- Maintain cables
- Maintain switchgear & disconnects
- Maintain transformers
- Maintain instrument transformers
- Maintain fuses
- Maintain breakers

- Maintain relays
- Maintain starters
- Apply coordination
- Maintain motors
- Maintain VSD's
- Maintain generators
- Maintain emergency systems
- Implement NFPA 70E