Training Program:

HV/MV Motors: Tests, Troubleshooting, Maintenance & protection

Introduction:

The equipment needs to be operated in a safe manner securing continuity of supply. This requires the equipment to be designed, installed, commissioned, operated, and maintained in a satisfactory manner within a management system that is effective in meeting the reliability goals within budget targets.

Course focuses mainly on the operation and maintenance of distribution equipment with reference to auxiliary equipment necessary for its operation.

Who Should Attend?

The course is aimed at Managers, Engineers, and Technicians responsible for the operation and maintenance of Electrical motors who will benefit from sharing experiences in the planning, organization, and implementation of maintenance activities.

Methodology

This interactive Training will be highly interactive, with opportunities to advance your opinions and ideas and will include;

- Lectures
- Workshop & Work Presentation
- Case Studies and Practical Exercise
- Videos and General Discussions

Accreditation:

BTS attendance certificate will be issued to all attendees completing a minimum of 80% of the total course duration.

Objective:

On successful completion of this course delegate will be able to understand:

- The need for adequate maintenance of equipment
- Methods of maintenance & maintenance types.
- Implementation of safe systems of work.
- Motor maintenance requirements and techniques.
- Trending and analysis of condition monitoring readings.
- The function and location of bearings.
- The need for routine inspections.
- The need to maintain system safety.
- Why accurate documentation and record keeping is essential.

Course Outline

Introductions and Safety

- Maintenance of electrical equipment.
- Electric Shock & Arc Flash.
- Safety & Required safety documents.
- Safe working distances.
- Preventive & predictive maintenance.
- Overview of Electrical tests & related instruments.

Introductions to AC Electrical Motors

- Fundamentals of motor technology
- Ac motor theory, construction and maintenance
- Three phase ac induction motors
- Synchronous & Induction motors.
- Classified EX motors.

Induction Motor Speed control Techniques

- Speed control of AC motors
- Variable speed drives.

- Pulse width modulation
- Field orientation
- Direct torque control
- Soft starters

Tests, Maintenance, Protection & Troubleshooting of IM

- Motor Testing Methods & Accepted criteria's.
- Motor Maintenance Practices.
- Troubleshooting & Failure Analysis of Induction Motor Failures.
- On-line condition monitoring by PDA (Partial Discharge Analysis).
- Protection schemes of MV/HV Induction motors.