MAESTRO CONSULTANTS

TROUBLESHOOTING & MAINTENANCE OF ELECTRIC EQUIPMENT FAULT TECHNIQUES ON ELECTRICAL POWER SYSTEMS

COURSE OUTLINE 2024

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TRAINING TITLE
Troubleshooting & Maintenance of Electric Equipment Fault Techniques on Electrical Power Systems

VENUE
Dubai, UAE

DURATION
5 Days

DATES
05 – 09 February2024

PRICE
$5,250 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch buffet.

TRAINING INTRODUCTION
This Troubleshooting and Maintenance of Electrical Equipment training seminar focuses mainly on trouble shooting and maintenance of electrical equipment. Electrical equipment plays an important role in the safe transmission and distribution of electrical power. The equipment needs to be operated in a safe manner securing continuity of supply to consumers.
This requires the equipment to be:

- Operated, and maintained in a safe manner
- Controlled and within an effective management system
- Aware of the need of maintenance and troubleshooting techniques balanced against equipment downtime

TRAINING OBJECTIVES
At the end of this training course, you will learn to:

- Elaborate on a variety of Electrical Faults
- Discuss Electrical Fault-finding Procedures
- Examine Maintenance and Condition Monitoring
- Describe the Function of a Transformer
- Describe the Need for an Efficient Earthing System
- Interpret Cabling Systems and Fault-finding Techniques

TRAINING AUDIENCE
This training Programme is suitable to a wide range of professionals but will

greatly benefit:

- Electrical Professionals
- Electrical Engineers
- Electrical Supervisors
- Technicians
- Professionals responsible for the operation, maintenance and fault finding techniques
- Personnel who have a work scope which includes limited Electrical maintenance

TRAINING OUTLINE

DAY 1

- Introductions and Safety
- Pre-course Assessment
- Goals and Discussion
- Types of Fault and Factors Affecting Fault Levels
- Maintenance of Electrical Equipment
- Managing Maintenance
- Safety
- Balanced and Unbalanced Faults
- Safe Working Practices
- Safe Isolation Procedures

DAY 2

- Maintenance of Electrical Equipment
- Review of Day 1
- Electrical Systems and Components
- Fault Identification
- Circuit Breakers and Capacities
- Earthing Introduction
- Network Earthing
- Earthing Systems
- Earth Bonding

DAY 3

- Maintenance Engineering
- Review of Day 2
- Predictive Maintenance
- Preventative Maintenance

- Reactive Maintenance and Troubleshooting
- Condition Monitoring
- Electrical Testing for Troubleshooting
- Transformer Maintenance
- Generator Maintenance

DAY 4

- Electrical Equipment: Troubleshooting and Maintenance
- Review of Day 3
- Transformer Components and Troubleshooting
- Maintenance of Electric Motors
- Power Electronics and Pulse width Modulation Invertors
- AC Machine Components and Problem Solving
- Synchronous Generators
- Generator Maintenance and Troubleshooting
- Variable Speed Drives

DAY 5

- Cabling
- Review of Day 4
- Cable Fault Locating
- External Influences
- Compatibility of Equipment
- SCADA (supervisory control and data acquisition)
- Post-course Assessment

TRAINING CERTIFICATE

MAESTRO CONSULTANTS Certificate of Completion for delegates who attend and complete the training course

METHODOLOGY

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of "real life" issues in their organizations.
The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.