



Motor Control Center (MCC) Maintenance

Course Introduction:

Overview of Motor Control Centers (MCCs)

Importance of MCC maintenance in industrial operations

Course Objectives:

Upon the successful completion of this course, each participant will be able to:-

- Understand the components and functions of MCCs
- Learn maintenance procedures and best practices
- Identify common issues and troubleshooting techniques
- Familiarize with safety standards and regulations
- Develop skills for effective inspection and documentation

Who Should Attend?

- Electrical maintenance personnel
- Facility managers and technicians
- Electrical engineers
- Safety officers

Course Outline:

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Module 1: Introduction to Motor Control Centers

- **Session 1: Overview of MCCs**
 - Definition and role in motor control
 - Typical configurations and applications
- **Session 2: Key Components of MCCs**
 - Control devices (contactors, relays)
 - Protection devices (circuit breakers, fuses)
 - Communication systems

Module 2: Maintenance Fundamentals

- **Session 1: Importance of Routine Maintenance**
 - Benefits of regular maintenance
 - Consequences of neglect

- **Session 2: Maintenance Procedures**
 - Scheduled vs. unscheduled maintenance
 - Common maintenance tasks and frequencies
- **Session 3: Tools and Equipment**
 - Essential tools for MCC maintenance
 - Safety equipment and practices

Module 3: Troubleshooting and Common Issues

- **Session 1: Troubleshooting Techniques**
 - Systematic approach to diagnosing problems
 - Identifying electrical and mechanical faults
- **Session 2: Common Electrical Issues**
 - Symptoms and causes of electrical faults
 - Testing methods and tools
- **Session 3: Mechanical Issues**
 - Identifying wear and misalignment
 - Maintenance and repair strategies

Module 4: Safety Standards and Compliance

- **Session 1: Overview of Safety Standards**
 - Key regulations (NFPA, OSHA)
 - Importance of compliance in maintenance
- **Session 2: Lockout/Tagout Procedures**
 - Principles and practices of lockout/tagout
 - Implementing safety protocols during maintenance
- **Session 3: Emergency Response**
 - Procedures for electrical hazards
 - Developing emergency response plans

Module 5: Advanced Maintenance Practices

- **Session 1: Predictive and Condition-Based Maintenance**
 - Introduction to monitoring techniques
 - Benefits of predictive maintenance
- **Session 2: Documentation and Record Keeping**
 - Importance of accurate maintenance records
 - Best practices for documentation
- **Session 3: Future Trends in MCC Technology**

- Innovations in motor control
- Impact of IoT and automation on maintenance practices

Conclusion

- Recap of key concepts and practices
- Discussion on the importance of ongoing training and development in MCC maintenance

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Fees:

To be advised as per course locations. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session

