Electrical Systems: Soares Grounding & Bonding for 2023

NTT Training
A DIVISION OF ECPI UNIVERSITY

The Electrical Systems: Soares Grounding & Bonding for 2023 course provides **focused training** on grounding and bonding systems in compliance with the 2023 National Electrical Code (NEC). It covers key concepts, installation techniques, and safety measures to ensure technicians can properly ground and bond electrical systems across various environments, including residential, commercial, and industrial installations. Technicians will gain knowledge of grounding electrode systems, bonding enclosures and equipment, implementing ground fault protection, and ensuring compliance with NEC standards.

WHAT THIS COURSE COVERS

- Define Grounding and Bonding According to NEC 2023
- Grounding Electrode Systems and Their Installation
- Bonding Requirements for Enclosures, Equipment, and Structural Components
- Ground Fault Protection Devices, Including GFCIs
- Equipment Grounding Conductors: Sizing and Installation
- Service Entrance Bonding and Grounding Techniques
- Grounding and Bonding in Commercial and Industrial Settings

COURSE OUTCOMES

- Become Familiar with the Key Concepts of Grounding and Bonding in Compliance with NEC 2023
- Learn How to Identify and Install Grounding Electrode Systems for Different Environments
- Understand the Proper Application of Ground Fault Protection Devices, Including GFCIs
- Learn How to Apply Bonding Techniques for Electrical Enclosures and Equipment
- Ensure the Safe Installation of Equipment Grounding Conductors and Service Entrances

WHO SHOULD TAKE THIS

- Electricians Working in Residential, Commercial, and Industrial Settings
- Electrical Maintenance Personnel Responsible for System Safety and Compliance
- Facility Managers Overseeing Electrical System Installations
- Engineers Involved in Electrical System Design and Planning
- Health & Safety Officers (EHS) Focused on Electrical Safety Regulations

COURSE AGENDA

- Introduction to Grounding and Bonding under NEC 2023
- Grounding and Bonding Definitions
- General Fundamentals of Grounding and Bonding Systems
- Ground Fault Protection Devices and GFCIs
- Grounding Electrode Systems: Types and Installation
- Bonding of Enclosures and Equipment
- Equipment Grounding Conductors: Sizing and Application
- Service Entrance Bonding Techniques

☑ Lecture ☐ Hands-on • ONSITE: 2-days (16 hours) • ☑ LIVE ONLINE: 2-Days (16 hours)

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COURSE AGENDA

Contact Hours: 16.00
CEUs: 1.6

CEU applicability is determined by your governing board or state approval.

Day 1

Opening Remarks

- Welcome and Introductions
- Conduct and Safety
- Introduction to Electrical Systems: Soares Grounding & Bonding for 2023

Module I: Grounding and Bonding Fundamentals

- Chapter 1: Grounding and Bonding Definitions
- Chapter 2: General Fundamentals
- Chapter 3: To Ground or Not to Ground the System
- Chapter 4: Grounding Electrical Systems
- Chapter 5: Clearing Ground Faults and Short Circuits
- Chapter 6: Ground Fault Protection

Module II: Grounding and Bonding Common Applications

- Chapter 7: The Grounding Electrode System
- Chapter 8: Grounding Electrode Conductors
- Chapter 9: Grounding Electrical Services

Day 2

Module II: Grounding and Bonding Common Applications (Continued)

- Chapter 10: Main Bonding Jumpers and Bonding at Services
- Chapter 11: Grounding Separately Derived Systems
- Chapter 12: Grounding and Bonding at Buildings or Structures
- Chapter 13: Bonding Enclosures and Equipment
- Chapter 14: Equipment Grounding Conductors
- Chapter 15: Enclosure and Equipment Grounding

Course Completion

- End of Course Assessment
- Course Evaluation
- 30-day After Training Feedback Registration

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