Agenda

Presented by Mark D. Cook

Introduction to Grounding and Bonding
- Definitions
- Review of Ohms law
- Ground fault paths
- Electric shock hazards

Grounding Electrode System
- 250.52 - Grounding electrodes
- 250.53 - Grounding electrode system installation
- 250.54 - Auxiliary grounding electrodes

Grounding Electrode Conductors
- 250.62 - Grounding electrode conductor materials
- 250.64 - GEC installation
- 250.66 - GEC sizing
- 250.68 - GEC and bonding
- 250.70 - Methods of grounding and bonding

System Grounding
- 250.20 - AC systems to be grounded
- 250.21 - AC systems not required to be grounded
- 250.22 - Circuits not to be grounded
- 250.24(A) - System grounding connections
- 250.24(B) - Main bonding jumpers
- 250.24(C) - Grounded conductors in service equipment
- 250.30 - Grounding separately derived AC systems
- 250.32 - Separate building feeders

Equipment Grounding and Conductors
- 250.110 - Equipment fastened in place
- 250.114 - Equipment connected by cord and plug
- 250.119 - ID of equipment grounding conductors
- 250.120 - EGC installation
- 250.122 - EGC sizing
- 250.126 - ID of wiring device terminals

Bonding
- 250.90 - General requirements
- 250.92 - Bonding of services
- 250.96 - Bonding other enclosures
- 250.102 - Bonding conductors and jumpers
- 250.104 - Bonding pipe systems and structural metal
- 250.106 - Lightning protection systems

Methods of Equipment Grounding
- 250.130 - EGC connections
- 250.136 - Equipment considered grounded
- 250.142 - Grounded conductor and grounding equipment
- 250.148 - EGC continuity and attachment

National Electrical Code 2020: *Grounding and Bonding*
Live, Interactive Webinar - Friday, June 4, 2021

HalfMoon Education Inc.
PO Box 278
Altoona, WI 54720-0278

Learning Objectives

You'll be able to:

Understand and use common terminology found in the National Electrical Code.

Review Ohms law, and discuss ground fault paths and electric shock hazards.

Review requirements for grounding electrode systems.

Identify AC systems to be grounded and circuits not to be grounded.

Differentiate grounding requirements for equipment fastened in place and equipment connected by cord and plug.

Comply with requirements for bonding of services, and for bonding conductors and jumpers.

HalfMoon Education Online Learning

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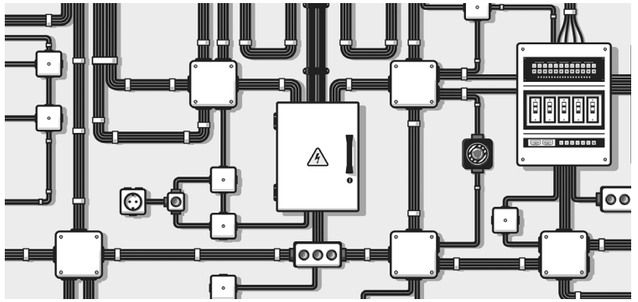

Review the basics of grounding and bonding

Get tips on system grounding

Learn about grounding electrode systems and conductors

Review requirements for equipment grounding and conductors

Comply with general requirements for bonding

Discuss methods of equipment grounding

Continuing Education Credits

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Faculty

Mark D. Cook *Electrical Education Specialist, Faith Technologies*

Mr. Cook is a master electrician in Wisconsin and Arizona. He holds an Administrator's and a Journeyman's license in Washington State. He has been in the electrical industry since 1978 and he owned and operated his own electrical commercial, residential and light industrial service company in Arizona from 1994 until the summer of 2015. Mr. Cook was an instructor for the Independent Electrical Contractors of Arizona (I.E.C), a four-year apprenticeship program facilitated at Gateway Community College in Phoenix. Mr. Cook was also an instructor for the Electric League of Arizona educational program, teaching classes on Grounding & Bonding and the National Electrical Code. He has presented the NEC for HalfMoon Education and the Arizona Department of Transportation as well. He authors "Code Corner" a monthly article appearing in *The Electric Times,* and he has contributed articles to the *IAEI* magazine. Mr. Cook is a National Fire Protection Association member, an International Association of Electrical Inspectors member and a certified commercial electrical inspector for the State of Wisconsin. Mr. Cook was recently appointed to CMP-2 for the National Electric Code, NFPA 70. He is a CEU provider for Iowa, Wisconsin and Minnesota.

Webinar Information

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- Fri, May 7, 2021|1:30 - 3:30 pm CDT

Deep Dive into Real-Life Construction Failures
- Mon, May 10, 2021|2:00 - 4:00 pm CDT

Deep Dive into Invasive Landscape Plants
- Thurs, May 20, 2021|11:00 am - 12:30 pm CDT

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Registration

National Electrical Code 2020: *Grounding and Bonding*

Live, Interactive Webinar - Friday, June 4, 2021

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