National Electrical Code
2017 and 2020

Livonia, MI - Thursday, April 23, 2020

Discuss major changes in the brand new 2020 National Electrical Code.
Learn in-depth, chapter-by-chapter specifics of the 2017 National Electrical Code which was adopted by Michigan in 2019.
Get an overview of new 2017 NEC Articles.

Analyze wiring and protection, grounding and bonding, and wiring methods and materials.
Explore equipment for general use, special occupancies, and special equipment.
Learn about special conditions and communication circuits, and review NEC tables.

Overview of Major Changes in 2020 National Electrical Code
- Expanded GFCI requirements
- Required surge protection
- Lighting loads for non-dwellings
- New code articles

Overview of new 2017 NEC Articles
- Article 425: Fixed Industrial Process Heating
- Article 691: Large-Scale PV Electric Power Production
- Article 706: Energy Storage Systems
- Article 790: Stand-Alone Systems
- Article 712: Direct Current Microgrids

Chapter 1: National Electrical Code
- Requirements for electrical installations, including clearances and free space requirements about equipment
- New reconditioned equipment, identification and traceability
- New limited access working space requirement
- New short-circuit current documentation

Chapter 2: Wiring and Protection
- Grounded conductors
- Branch circuit, feeder and services calculations
- New GFCI protection for non-dwelling units

Chapter 3: Wiring Methods and Materials
- Grounding of separately derived systems
- Bonding of services

Chapter 4: Equipment for General Use
- Switchboards and panel boards
- Short circuit rating

Chapter 5: Special Occupancies
- Commercial garages
- Health care facility requirements

Chapter 6: Special Equipment
- Hybrid vehicle plug in requirements
- Pools and spas

Chapter 7: Special Conditions
- Emergency systems
- Fire alarm circuits

Chapter 8: Communications Circuits
- Premises-powered broadband communication systems
- Network-powered broadband communication systems

Chapter 9: Tables
- Conductor fill and raceway calculation example

You’ll be able to:
- Explain what is now required in the state of Michigan by understanding the 2017 National Electrical Code.
- Discuss dwelling service disconnect requirements, required surge protection, and other major changes to the brand new 2020 National Electrical Code.
- Understand the limited access working space requirement and short-circuit current documentation.
- Learn about GFCI protection for non-dwelling units and single phase dwelling services and feeders.
- Identify requirements for emergency systems, fire alarm circuits and communications circuits.

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Learning Objectives

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Additional Learning

Webinar Series

- **Foundation Damage and Repair**
  - **Design & Geo-Environmental Loading, Building Codes, Soil Properties**
    - Wed., March 4, 2020, 11:00 AM - 12:30 PM CST
  - **Foundation-Slab-Wall Design and Construction**
    - Wed., March 4, 2020, 1:00 - 2:30 PM CST
  - **Evaluation of Foundation-Slab Damage and Repair Alternatives**
    - Thurs., March 5, 2020, 11:00 AM - 12:30 PM CST
  - **Evaluation of Foundation Wall Damage and Repair Alternatives**
    - Thurs., March 5, 2020, 1:00 - 2:30 PM CST

- **Solar Photovoltaic Project Design and Development**
  - **Solar Photovoltaic Project Design and Development, Part I**
    - Wed., March 4, 2020, 11:00 AM - 1:00 PM CST
  - **Solar Photovoltaic Project Design and Development, Part II**
    - Thurs., March 5, 2020, 11:00 AM - 2:15 PM CST

International Residential Code

- **Development and Enforcement of International Residential Code**
  - Thurs., March 12, 2020, 11:00 AM - 12:00 PM CDT
- **IRC Building Planning and Shell Construction, Part I**
  - Thurs., March 12, 2020, 1:00 - 2:30 PM CDT
- **IRC Building Planning and Shell Construction, Part II**
  - Fri., March 13, 2020, 11:00 AM - 12:30 PM CDT
- **IRC Energy Efficiency and Building Systems**
  - Fri., March 13, 2020, 1:00 - 5:00 PM CDT

For more information and other online learning opportunities visit: www.halfmoonseminars.org/webinars/

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