

Electrical Level 1



Introduction to the *National Electrical Code*® 26105-14



Objectives

When trainees have completed this session, they should be able to do the following:

1. Explain the purpose and history of the *NEC*[®].
2. Describe the layout of the *NEC*[®].
3. Demonstrate how to navigate the *NEC*[®].
4. Describe the purpose of the National Electrical Manufacturers Association and the NFPA.
5. Explain the role of nationally recognized testing laboratories.



Performance Tasks

1. Use ***NEC Article 90*** to determine the scope of the ***NEC***[®]. State what is covered by the ***NEC***[®] and what is not.
2. Find the definition of the term *feeder* in the ***NEC***[®].
3. Look up the ***NEC***[®] specifications that you would need to follow if you were installing an outlet near a swimming pool.
4. Find the minimum wire bending space required for two No. 1/0 AWG conductors installed in a junction box or cabinet and entering opposite the terminal.



1.0.0

What's wrong with this picture?



26105-14_SA01.EPS



26105-14_SA02.EPS



26105-14_SA03.EPS

2.0.0 – 2.1.1

Purpose and History of the *NEC*[®]

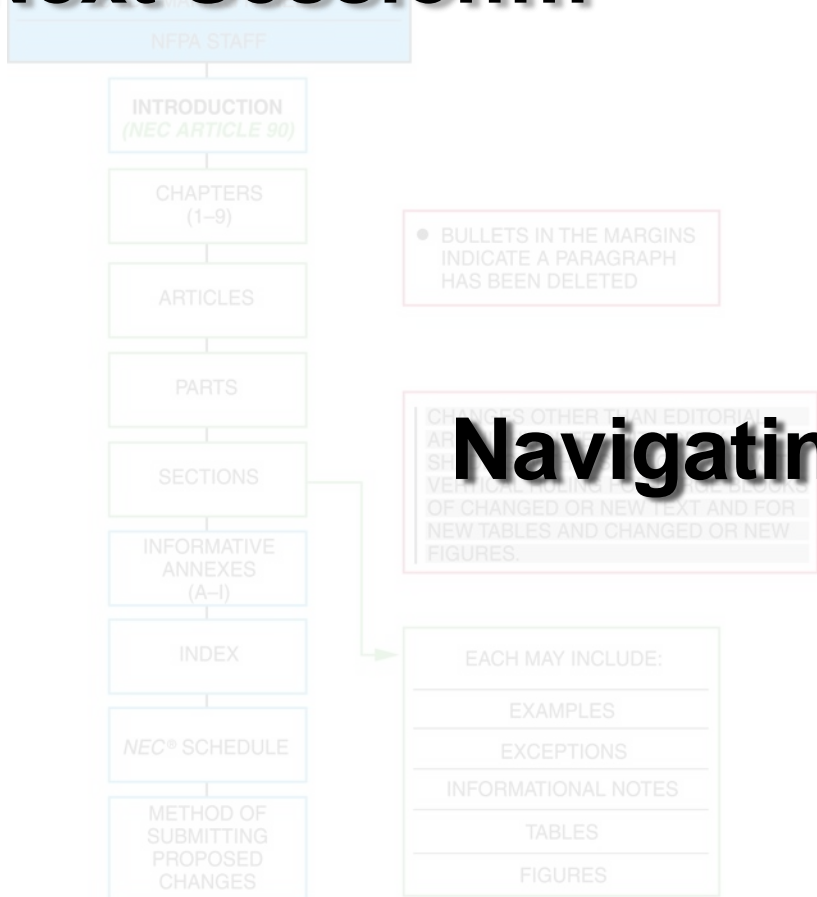


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- The *National Electrical Code*[®] (*NEC*[®]) provides the minimum safety precautions necessary to protect people and property from the hazards of electricity.
- The *NEC*[®] is developed by panels of experts who assess electrical installations and hazards and continually revise the standard to maximize safety.

3.0.0 – 3.4.0

Next Session...



Navigating the *NEC*®

The Layout of the *NEC*®

- The *NEC*® provides mandatory and permissive rules.
- Mandatory rules must be followed. Mandatory rules are characterized by the terms “shall” or “shall not.”
- Permissive rules are characterized by the terms “shall be permitted” or “shall not be required.”



4.0.0 – 5.2.0

Next Session... Navigating the *NEC*[®]

- Definitions are located in *NEC Article 100*. Two important definitions are listed and labeled, which mean that a product has been marked and certified as manufactured to a certain standard. Underwriters Laboratories

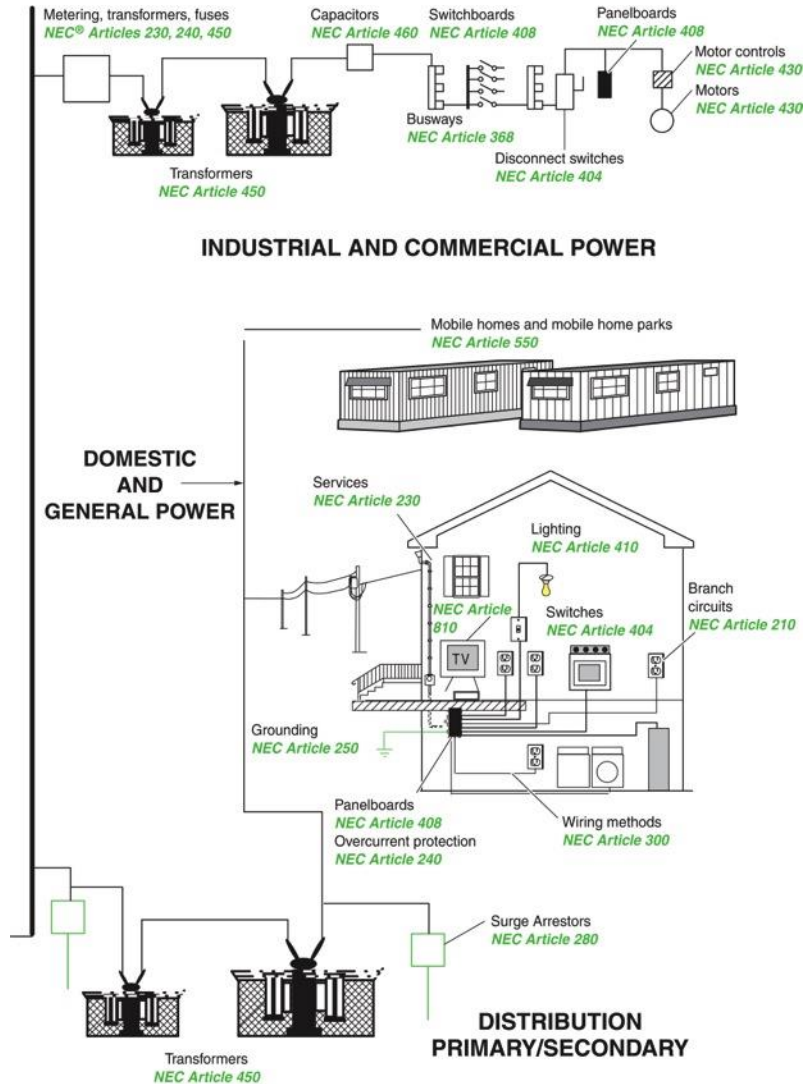
***NEC*[®] References for Industrial, Commercial, and Residential Power**

- *NEC Chapter 2* covers branch-circuit overcurrent protection, while *NEC Chapter 3* covers wiring methods and materials. *NEC Chapter 4* covers equipment.
- *NEC Chapters 5, 6, and 7* cover special equipment, conditions, and occupancies.
- *NEC Chapter 8* covers communications systems.

26105-14_F02.EPS



4.0.0 – 5.2.0



NEC[®] References for Industrial, Commercial, and Residential Power

Performance Tasks

This session will conclude with trainees using the *NEC[®]* to find the information specified in the performance tasks.

26105-14_F03.EPS



Wrap Up

3-2-1

- 3 – Write 3 important things learned during class
- 2 – Write 2 questions you have about the material
- 1 – Write 1 thought you had about the material



Next Session...

MODULE EXAM

Review the complete module to prepare for the module exam. Complete the Module Review as a study aid.

