

Course Name: 2023 Code Change I

Course Description: Code Changes to the 2023 NEC

This course is designed to provide an in-depth understanding of the National Electrical Code (NEC) updates and its various standards and practices. The course will cover a range of topics, including wiring methods, commissioning, servicing, grounding conductors, surge protection, and the installation of various electrical equipment.

Topics covered in this course include:

1. 90.1 - Scope: The scope of the National Electrical Code, its purpose and organization.
2. 100 - Scope (Code-wide changes): An overview of the code-wide changes made in the NEC code, with a focus on the removal of xx.2 section.
3. 100 - Accessible (Applied to Wiring Methods): The requirements for accessible wiring methods, including the identification of equipment, clearance requirements, and protection of conductors.
4. 100 - Commissioning: The commissioning process for electrical equipment, including the requirements for testing, inspection, and documentation.
5. 100 - In Sight From: The requirements for electrical equipment to be in sight from the operating location, including the definition of "within sight."
6. 100 - Servicing: The requirements for servicing electrical equipment, including the identification of equipment, clearance requirements, and protection of conductors.
7. 110.12 Mechanical Execution of Work: The requirements for the proper installation and mechanical execution of electrical work.
8. 110.17 Servicing and Maintenance of Equipment: The requirements for the servicing and maintenance of electrical equipment.
9. 110.20 Reconditioned Equipment: The requirements for the use of reconditioned electrical equipment.
10. 110.26 Space About Electrical Equipment: The requirements for the space around electrical equipment to ensure proper access and safety.
11. 110.29 In Sight From (Within Sight From, Within Sight): The requirements for electrical equipment to be within sight from the operating location.
12. 200.6 Means of Identifying Grounded Conductors: The requirements for identifying grounded conductors.
13. 210.4 Multiwire Branch Circuits: The requirements for the installation of multiwire branch circuits.
14. 210.8 (A)(7) Dwelling Unit (Areas with Sinks): The requirements for the installation of outlets in areas with sinks in dwelling units.
15. 210.8(F) Outdoor Outlets (for Dwelling Units): The requirements for the installation of outdoor outlets in dwelling units.
16. 210.17 Guest Rooms and Guest Suites: The requirements for the installation of electrical outlets in guest rooms and guest suites.
17. 210.19 Conductors-Minimum Ampacity and Size: The requirements for the minimum ampacity and size of conductors.
18. 215.18 Surge Protection: The requirements for surge protection in electrical systems.

19. 220.57 Electric Vehicle Supply Equipment (EVSE) Load: The requirements for the load calculations of electric vehicle supply equipment.
20. 225.27 Raceway Seal: The requirements for sealing raceways to prevent moisture ingress.
21. 230.71(B) Two to Six Service Disconnecting Means: The requirements for service disconnecting means in electrical systems.
22. 240.6(A) Fuses and Fixed-Trip Circuit Breakers: The requirements for the installation of fuses and fixed-trip circuit breakers.
23. 240.7 Listing Requirements: The listing requirements for electrical equipment.
24. 242.9 Indicating: The requirements for indicating electrical equipment.
25. 250.64 (G) Enclosures with Ventilation Openings: The requirements for enclosures with ventilation openings.
26. 250.102(C)(2) Size for Parallel Conductor
27. 250.148 Continuity of Equipment Grounding Conductors and Attachment in Boxes: The requirements for ensuring continuity of equipment grounding conductors and attachment in boxes.
28. 312.10 Screws or Other Fasteners: The requirements for the use of screws or other fasteners in electrical installations.
29. 314.17(A) Openings to Be Closed: The requirements for closing openings in electrical installations.
30. 314.7(B)(2) Cables Entering Through Cable Clamps: The requirements for cables entering through cable clamps.
31. 314.24 Dimensions of Boxes: The requirements for the dimensions of boxes in electrical installations.
32. 334.10 Uses Permitted: The permitted uses for nonmetallic-sheathed cable in electrical installations.
33. 334.40 Boxes and Fittings: The requirements for boxes and fittings in nonmetallic-sheathed cable installations.
34. 356.10 Uses Permitted: The permitted uses for liquidtight flexible metal conduit in electrical installations.
35. 358.20 (B) The Maximum Size of EMT: The maximum size of electrical metallic tubing that can be used in electrical installations.
36. Article 369 Insulated Bus Pipes/Tubular Covered Conductors: The requirements for insulated bus pipes and tubular covered conductors.
37. 404.16 Reconditioned Equipment: The requirements for the use of reconditioned equipment in electrical installations.
38. 406.4 (D), (3) Ground-Fault Circuit-Interrupter Protection: The requirements for ground-fault circuit-interrupter protection in electrical installations.
39. 406.12 Tamper-Resistant Receptacles: The requirements for tamper-resistant receptacles in electrical installations.
40. 408.9 Replacement Panel Boards: The requirements for the replacement of panel boards in electrical installations.
41. 422.16 (B)(2) Dishwashers and Trash Compactors: The requirements for the installation of dishwashers and trash compactors in electrical systems.

42. 501.10 (A)(1) General (In Class I, Division 1 Locations): The requirements for electrical equipment in Class I, Division 1 locations.
43. 517.20(A) Wet Procedure Locations (Receptacles and Fixed Equipment): The requirements for electrical equipment in wet procedure locations.
44. 547.44 Equal Potential Planes and Bonding of Equal Potential Planes. (Agricultural): The requirements for equal potential planes and bonding of equal potential planes in agricultural electrical systems.
45. 555.14 Equal Potential Planes and Bonding of Equal Potential Planes. (Marinas): The requirements for equal potential planes and bonding of equal potential planes in marina electrical systems.
46. 625.44 (A) Portable Equipment: The requirements for portable equipment in electrical systems.
47. 680.5 GFCI and SPGFCI Protection: The requirements for ground-fault circuit-interrupter and swimming pool ground-fault circuit-interrupter protection in electrical systems.
48. 690.4 (G) PV Equipment Floating on Bodies of Water: The requirements for photovoltaic equipment floating on bodies of water in electrical systems.
49. 690.41 PV System DC Circuit Grounding and Protection: The requirements for grounding and protection in photovoltaic systems.
50. 840.160 Powering Circuits: The requirements for powering circuits in fire alarm systems.