

Instructions:

Fees \$ 75

Print these pages.

1. Circle the correct answers and transfer them to the [answer sheet](#).
2. Page down to the last page for the [verification forms](#) and mailing instructions.
3. Use the included 2017 NEC definitions above each mini section.

Course: 2017 NEC Article’s Definition Quiz part 1

This course is valid for these credentials:

<u>Credential Description</u>	<u>Cred Code</u>	<u>Credit Hours</u>
Registered/Beginner Electrician	BE	8
Commercial Electrical Inspector	CEI	8
Industrial Journeyman Electrician	IJE	8
Journeyman Electrician	JE	8
Master Electrician	ME	8
Residential Journeyman Electrician	RJE	8
Residential Master Electrician	RME	8
UDC-Electrical Inspector	UEI	2.5

2017 NEC Article’s Definition Quiz Part 1

240.2 Definitions. Overcurrent Protection

Current-Limiting Overcurrent Protective Device. A device that, when interrupting currents in its current-limiting range, reduces the current flowing in the faulted circuit to a magnitude substantially less than that obtainable in the same circuit if the device were replaced with a solid conductor having comparable impedance.

Supervised Industrial Installation. For the purposes of Part VIII, the industrial portions of a facility where all of the following conditions are met:

- (1) Conditions of maintenance and engineering supervision ensure that only qualified persons monitor and service the system.
- (2) The premises wiring system has 2500 kVA or greater of load used in industrial process(es), manufacturing activities, or both, as calculated in accordance with Article 220.
- (3) The premises has at least one service or feeder that is more than 150 volts to ground and more than 300 volts phase-to-phase. This definition excludes installations in buildings used by the industrial facility for offices, warehouses, garages, machine shops, and recreational facilities that are not an integral part of the industrial plant, substation, or control center.

Tap Conductor. A conductor, other than a service conductor, that has overcurrent protection ahead of its point of supply that exceeds the value permitted for similar conductors that are protected as described elsewhere in 240.4.

240.3 Other Articles. Equipment shall be protected against overcurrent in accordance with the article in this *Code* that covers the type of equipment specified in Table 240.3.

240.4 Protection of Conductors. Conductors, other than flexible cords, flexible cables, and fixture wires, shall be protected against overcurrent in accordance with their ampacities specified in 310.15, unless otherwise permitted or required in 240.4(A) through (G).

310.2 Definitions. Conductors for General Wiring

Electrical Ducts. Electrical conduits, or other raceways round in cross section, that are suitable for use underground or embedded in concrete.

Thermal Resistivity. As used in this *Code*, the heat transfer capability through a substance by conduction.

324.2 Definitions. Flat Conductor Cable

Bottom Shield. A protective layer that is installed between the floor and Type FCC flat conductor cable to protect the cable from physical damage and may or may not be incorporated as an integral part of the cable.

Cable Connector. A connector designed to join Type FCC cables without using a junction box.

FCC System. A complete wiring system for branch circuits that is designed for installation under carpet squares.

1. Conductors, other than flexible cords, flexible cables, and fixture wires, shall be protected against overcurrent in accordance with their ampacities specified in 310.15, unless otherwise permitted or required in 240.4(A) through (G) defines:
 - a. Current-Limiting Overcurrent Protective Device
 - b. Tap Conductor
 - c. 240.3 Other Articles
 - d. 240.4 Protection of Conductors
 - e. Supervised Industrial Installation
2. Equipment shall be protected against overcurrent in accordance with the article in this *Code* that covers the type of equipment specified in Table 240.3 defines:
 - a. Current-Limiting Overcurrent Protective Device
 - b. Tap Conductor
 - c. 240.3 Other Articles
 - d. 240.4 Protection of Conductors
 - e. Supervised Industrial Installation
3. A device that, when interrupting currents in its current-limiting range, reduces the current flowing in the faulted circuit to a magnitude substantially less than that obtainable in the same circuit if the device were replaced with a solid conductor having comparable impedance defines:
 - a. Current-Limiting Overcurrent Protective Device
 - b. Tap Conductor
 - c. 240.3 Other Articles
 - d. 240.4 Protection of Conductors
 - e. Supervised Industrial Installation
4. A conductor, other than a service conductor, that has overcurrent protection ahead of its point of supply that exceeds the value permitted for similar conductors that are protected as described elsewhere in 240.4 defines:
 - a. Current-Limiting Overcurrent Protective Device
 - b. Tap Conductor
 - c. 240.3 Other Articles
 - d. 240.4 Protection of Conductors
 - e. Supervised Industrial Installation
5. Supervised Industrial Installation. For the purposes of Part VIII, the industrial portions of a facility, which of the following conditions are met?
 - a. Conditions of maintenance and engineering supervision ensure that only qualified persons monitor and service the system.
 - b. The premises wiring system has 2500 kVA or greater of load used in industrial process(es), manufacturing activities, or both, as calculated in accordance with Article 220.
 - c. The premises has at least one service or feeder that is more than 150 volts to ground and more than 300 volts phase-to-phase. This definition excludes installations in buildings used by the industrial facility for offices, warehouses, garages, machine shops, and recreational facilities that are not an integral part of the industrial plant, substation, or control center.
 - d. all of the above
 - e. none of the above
6. Electrical conduits, or other raceways round in cross section, that are suitable for use underground or embedded in concrete defines:
 - a. Electrical Ducts
 - b. Thermal Resistivity
 - c. Bottom Shield

- d. Cable Connector
 - e. FCC System
7. A protective layer that is installed between the floor and Type FCC flat conductor cable to protect the cable from physical damage and may or may not be incorporated as an integral part of the cable defines:
- a. Electrical Ducts
 - b. Thermal Resistivity
 - c. Bottom Shield
 - d. Cable Connector
 - e. FCC System
8. A connector designed to join Type FCC cables without using a junction box defines:
- a. Electrical Ducts
 - b. Thermal Resistivity
 - c. Bottom Shield
 - d. Cable Connector
 - e. FCC System
9. As used in this *Code (310.2)*, the heat transfer capability through a substance by conduction defines:
- a. Electrical Ducts
 - b. Thermal Resistivity
 - c. Bottom Shield
 - d. Cable Connector
 - e. FCC System
10. A complete wiring system for branch circuits that is designed for installation under carpet squares defines:
- a. Electrical Ducts
 - b. Thermal Resistivity
 - c. Bottom Shield
 - d. Cable Connector
 - e. FCC System

334.2 Definitions. Nonmetallic-Sheathed Cable

Nonmetallic-Sheathed Cable. A factory assembly of two or more insulated conductors enclosed within an overall nonmetallic jacket.

Type NM. Insulated conductors enclosed within an overall nonmetallic jacket.

Type NMC. Insulated conductors enclosed within an overall, corrosion resistant, nonmetallic jacket.

Type NMS. Insulated power or control conductors with signaling, data, and communications conductors within an overall nonmetallic jacket.

338.2 Definitions. Service-Entrance Cable

Service-Entrance Cable. A single conductor or multiconductor assembly provided with or without an overall covering, primarily used for services, and of the following types:

Type SE. Service-entrance cable having a flame-retardant, moisture-resistant covering.

Type USE. Service-entrance cable, identified for underground use, having a moisture-resistant covering, but not required to have a flame-retardant covering.

366.2 Definitions. Auxiliary Gutters

Metal Auxiliary Gutter. A sheet metal enclosure used to supplement wiring spaces at meter centers, distribution centers, switchgear, switchboards, and similar points of wiring systems. The enclosure has hinged or removable covers for housing and protecting electrical wires, cable, and busbars. The enclosure is designed for conductors to be laid or set in place after the enclosures have been installed as a complete system.

Nonmetallic Auxiliary Gutter. A flame-retardant, nonmetallic enclosure used to supplement wiring spaces at meter centers, distribution centers, switchgear, switchboards, and similar points of wiring systems. The enclosure has hinged or removable covers for housing and protecting electrical wires, cable, and busbars. The enclosure is designed for conductors to be laid or set in place after the enclosures have been installed as a

complete system.

372.2 Definitions. Cellular Concrete Floor Raceways

Cell. A single, enclosed tubular space in a floor made of precast cellular concrete slabs, the direction of the cell being parallel to the direction of the floor member.

Header. Transverse metal raceways for electrical conductors, providing access to predetermined cells of a precast cellular concrete floor, thereby permitting the installation of electrical conductors from a distribution center to the floor cells.

374.2 Definitions. Cellular Metal Floor Raceways

Cellular Metal Floor Raceway. The hollow spaces of cellular metal floors, together with suitable fittings, that may be approved as enclosed channel for electrical conductors.

11. A single conductor or multiconductor assembly provided with or without an overall covering, primarily used for services defines:

- a. Nonmetallic-Sheathed Cable
- b. Type NM
- c. Type NMC
- d. Type NMS
- e. Service-Entrance Cable

12. Insulated power or control conductors with signaling, data, and communications conductors within an overall nonmetallic jacket defines:

- a. Nonmetallic-Sheathed Cable
- b. Type NM
- c. Type NMC
- d. Type NMS
- e. Service-Entrance Cable

13. A factory assembly of two or more insulated conductors enclosed within an overall nonmetallic jacket defines:

- a. Nonmetallic-Sheathed Cable
- b. Type NM
- c. Type NMC
- d. Type NMS
- e. Service-Entrance Cable

14. Insulated conductors enclosed within an overall nonmetallic jacket defines:

- a. Nonmetallic-Sheathed Cable
- b. Type NM
- c. Type NMC
- d. Type NMS
- e. Service-Entrance Cable

15. Insulated conductors enclosed within an overall, corrosion resistant, nonmetallic jacket defines:

- a. Nonmetallic-Sheathed Cable
- b. Type NM
- c. Type NMC
- d. Type NMS
- e. Service-Entrance Cable

16. Service-Entrance Cable. A single conductor or multiconductor assembly provided with or without an overall covering, primarily used for services, and which of the following types?

- a. Type SE
- b. Type USE
- c. Type SEU
- d. A & B only
- e. none of the above

17. Service-Entrance Cable Type SE is defined as:

- a. Service-entrance cable, identified for underground use, having a moisture-resistant covering, but not required to have a flame-retardant covering.
 - b. Service-entrance cable having a flame-retardant, moisture-resistant covering.
 - c. Service-entrance cable without a flame-retardant, moisture-resistant covering.
 - d. Service-entrance cable, identified for above ground use, having a moisture-resistant covering, but not required to have a flame-retardant covering.
 - e. none of the above
18. Service-Entrance Cable Type USE is defined as:
- a. Service-entrance cable, identified for underground use, having a moisture-resistant covering, but not required to have a flame-retardant covering.
 - b. Service-entrance cable having a flame-retardant, moisture-resistant covering.
 - c. Service-entrance cable without a flame-retardant, moisture-resistant covering.
 - d. Service-entrance cable, identified for above ground use, having a moisture-resistant covering, but not required to have a flame-retardant covering.
 - e. none of the above
19. A sheet metal enclosure used to supplement wiring spaces at meter centers, distribution centers, switchgear, switchboards, and similar points of wiring systems. The enclosure has hinged or removable covers for housing and protecting electrical wires, cable, and busbars. The enclosure is designed for conductors to be laid or set in place after the enclosures have been installed as a complete system defines:
- a. Metal Auxiliary Gutter
 - b. Nonmetallic Auxiliary Gutter
 - c. Cell
 - d. Header
 - e. Cellular Metal Floor Raceway
20. A flame-retardant, nonmetallic enclosure used to supplement wiring spaces at meter centers, distribution centers, switchgear, switchboards, and similar points of wiring systems. The enclosure has hinged or removable covers for housing and protecting electrical wires, cable, and busbars. The enclosure is designed for conductors to be laid or set in place after the enclosures have been installed as a complete system defines:
- a. Metal Auxiliary Gutter
 - b. Nonmetallic Auxiliary Gutter
 - c. Cell
 - d. Header
 - e. Cellular Metal Floor Raceway
21. A single, enclosed tubular space in a floor made of precast cellular concrete slabs, the direction of the cell being parallel to the direction of the floor member defines:
- a. Metal Auxiliary Gutter
 - b. Nonmetallic Auxiliary Gutter
 - c. Cell
 - d. Header
 - e. Cellular Metal Floor Raceway
22. Transverse metal raceways for electrical conductors, providing access to predetermined cells of a precast cellular concrete floor, thereby permitting the installation of electrical conductors from a distribution center to the floor cells defines:
- a. Metal Auxiliary Gutter
 - b. Nonmetallic Auxiliary Gutter
 - c. Cell
 - d. Header
 - e. Cellular Metal Floor Raceway
23. The hollow spaces of cellular metal floors, together with suitable fittings, that may be approved as enclosed channel for electrical conductors defines:
- a. Metal Auxiliary Gutter
 - b. Nonmetallic Auxiliary Gutter
 - c. Cell
 - d. Header

e. Cellular Metal Floor Raceway

382.2 Definitions. Cellular Metal Floor Raceways

Concealable Nonmetallic Extension. A listed assembly of two, three, or four insulated circuit conductors within a nonmetallic jacket, an extruded thermoplastic covering, or a sealed nonmetallic covering. The classification includes surface extensions intended for mounting directly on the surface of walls or ceilings, and concealed with paint, texture, joint compound, plaster, wallpaper, tile, wall paneling, or other similar materials.

Nonmetallic Extension. An assembly of two insulated conductors within a nonmetallic jacket or an extruded thermoplastic covering. The classification includes surface extensions intended for mounting directly on the surface of walls or ceilings.

393.2 Definitions. Low-Voltage Suspended Ceiling Power Distribution Systems

Busbar. A noninsulated conductor electrically connected to the source of supply and physically supported on an insulator providing a power rail for connection to utilization equipment, such as sensors, actuators, A/V devices, low-voltage luminaire assemblies, and similar electrical equipment.

Busbar Support. An insulator that runs the length of a section of suspended ceiling bus rail that serves to support and isolate the busbars from the suspended grid rail.

Connector. A term used to refer to an electromechanical fitting.

Connector, Load. An electromechanical connector used for power from the busbar to utilization equipment.

Connector, Pendant. An electromechanical or mechanical connector used to suspend low-voltage luminaire or utilization equipment below the grid rail and to supply power to connect from the busbar to utilization equipment.

Connector, Power Feed. An electromechanical connector used to connect the power supply to a power distribution cable, to connect directly to the busbar, or to connect from a power distribution cable to the busbar.

Connector, Rail to Rail. An electromechanical connector used to interconnect busbars from one ceiling grid rail to another grid rail.

Grid Bus Rail. A combination of the busbar, the busbar support, and the structural suspended ceiling grid system.

Low-Voltage Suspended Ceiling Power Distribution System. A system that serves as a support for a finished ceiling surface and consists of a busbar and busbar support system to distribute power to utilization equipment supplied by a Class 2 power supply.

Power Supply. A Class 2 power supply connected between the branch-circuit power distribution system and the busbar lowvoltage suspended ceiling power distribution system.

Rail. The structural support for the suspended ceiling system typically forming the ceiling grid supporting the ceiling tile and listed utilization equipment, such as sensors, actuators, A/V devices, and low-voltage luminaires and similar electrical equipment.

Reverse Polarity Protection (Backfeed Protection). A system that prevents two interconnected power supplies, connected positive to negative, from passing current from one power source into a second power source.

Suspended Ceiling Grid. A system that serves as a support for a finished ceiling surface and other utilization equipment.

24. A listed assembly of two, three, or four insulated circuit conductors within a nonmetallic jacket, an extruded thermoplastic covering, or a sealed nonmetallic covering. The classification includes surface extensions intended for mounting directly on the surface of walls or ceilings, and concealed with paint, texture, joint compound, plaster, wallpaper, tile, wall paneling, or other similar materials defines:

- a. Concealable Nonmetallic Extension
- b. Nonmetallic Extension
- c. Busbar
- d. Busbar Support
- e. Connector

25. An assembly of two insulated conductors within a nonmetallic jacket or an extruded thermoplastic covering. The classification includes surface extensions intended for mounting directly on the surface of walls or ceilings defines:

- a. Concealable Nonmetallic Extension
- b. Nonmetallic Extension
- c. Busbar
- d. Busbar Support
- e. Connector

26. A noninsulated conductor electrically connected to the source of supply and physically supported on an insulator providing a power rail for connection to utilization equipment, such as sensors, actuators, A/V devices, low-voltage luminaire assemblies, and similar electrical equipment defines:

- a. Concealable Nonmetallic Extension
- b. Nonmetallic Extension
- c. Busbar
- d. Busbar Support
- e. Connector

27. An insulator that runs the length of a section of suspended ceiling bus rail that serves to support and isolate the busbars from the suspended grid rail defines:

- a. Concealable Nonmetallic Extension
- b. Nonmetallic Extension
- c. Busbar
- d. Busbar Support
- e. Connector

28. A term used to refer to an electromechanical fitting defines:

- a. Concealable Nonmetallic Extension
- b. Nonmetallic Extension
- c. Busbar
- d. Busbar Support
- e. Connector

29. A combination of the busbar, the busbar support, and the structural suspended ceiling grid system defines:

- a. Connector, Load
- b. Connector, Pendant
- c. Connector, Power Feed
- d. Connector, Rail to Rail
- e. Grid Bus Rail

30. An electromechanical connector used to connect the power supply to a power distribution cable, to connect directly to the busbar, or to connect from a power distribution cable to the busbar defines:

- a. Connector, Load
- b. Connector, Pendant
- c. Connector, Power Feed
- d. Connector, Rail to Rail
- e. Grid Bus Rail

31. An electromechanical connector used to interconnect busbars from one ceiling grid rail to another grid rail defines:

- a. Connector, Load
- b. Connector, Pendant
- c. Connector, Power Feed
- d. Connector, Rail to Rail
- e. Grid Bus Rail

32. An electromechanical connector used for power from the busbar to utilization equipment defines:

- a. Connector, Load
- b. Connector, Pendant
- c. Connector, Power Feed
- d. Connector, Rail to Rail

- e. Grid Bus Rail
- 33. An electromechanical or mechanical connector used to suspend low-voltage luminaire or utilization equipment below the grid rail and to supply power to connect from the busbar to utilization equipment defines:
 - a. Connector, Load
 - b. Connector, Pendant
 - c. Connector, Power Feed
 - d. Connector, Rail to Rail
 - e. Grid Bus Rail
- 34. A Class 2 power supply connected between the branch-circuit power distribution system and the busbar low voltage suspended ceiling power distribution system defines:
 - a. Low-Voltage Suspended Ceiling Power Distribution System
 - b. Power Supply
 - c. Rail
 - d. Reverse Polarity Protection (Backfeed Protection).
 - e. Suspended Ceiling Grid
- 35. A system that serves as a support for a finished ceiling surface and consists of a busbar and busbar support system to distribute power to utilization equipment supplied by a Class 2 power supply defines:
 - a. Low-Voltage Suspended Ceiling Power Distribution System
 - b. Power Supply
 - c. Rail
 - d. Reverse Polarity Protection (Backfeed Protection).
 - e. Suspended Ceiling Grid
- 36. The structural support for the suspended ceiling system typically forming the ceiling grid supporting the ceiling tile and listed utilization equipment, such as sensors, actuators, A/V devices, and low-voltage luminaires and similar electrical equipment defines:
 - a. Low-Voltage Suspended Ceiling Power Distribution System
 - b. Power Supply
 - c. Rail
 - d. Reverse Polarity Protection (Backfeed Protection).
 - e. Suspended Ceiling Grid
- 37. A system that prevents two interconnected power supplies, connected positive to negative, from passing current from one power source into a second power source defines:
 - a. Low-Voltage Suspended Ceiling Power Distribution System
 - b. Power Supply
 - c. Rail
 - d. Reverse Polarity Protection (Backfeed Protection).
 - e. Suspended Ceiling Grid
- 38. A system that serves as a support for a finished ceiling surface and other utilization equipment defines:
 - a. Low-Voltage Suspended Ceiling Power Distribution System
 - b. Power Supply
 - c. Rail
 - d. Reverse Polarity Protection (Backfeed Protection).
 - e. Suspended Ceiling Grid

396.2 Definitions. Messenger-Supported Wiring

Insulated Conductor. For the purposes of this article, an insulated conductor includes the following:

- (1) Conductor types described in 310.104, and
- (2) Overhead service conductors encased in a polymeric material that has been evaluated for the applied nominal voltage.

Messenger-Supported Wiring. An exposed wiring support system using a messenger wire to support insulated conductors by any one of the following:

- (1) A messenger with rings and saddles for conductor support
- (2) A messenger with a field-installed lashing material for conductor support

- (3) Factory-assembled aerial cable
- (4) Multiplex cables utilizing a bare conductor, factory assembled and twisted with one or more insulated conductors, such as duplex, triplex, or quadruplex type of construction.

406.2 Definitions. Receptacles, Cord Connectors, and Attachment Plugs

Child Care Facility. A building or structure, or portion thereof, for educational, supervisory, or personal care services for more than four children 7 years old or less.

Outlet Box Hood. A housing shield intended to fit over a faceplate for flush-mounted wiring devices, or an integral component of an outlet box or of a faceplate for flush-mounted wiring devices. The hood does not serve to complete the electrical enclosure; it reduces the risk of water coming in contact with electrical components within the hood, such as attachment plugs, current taps, surge protective devices, direct plugin transformer units, or wiring devices.

424.91 Definitions.

Heating Panel. A complete assembly provided with a junction box or a length of flexible conduit for connection to a branch circuit.

Heating Panel Set. A rigid or nonrigid assembly provided with nonheating leads or a terminal junction assembly identified as being suitable for connection to a wiring system.

426.2 Definitions. Fixed Electric Space-Heating Equipment Heating System.

A complete system consisting of components such as heating elements, fastening devices, nonheating circuit wiring, leads, temperature controllers, safety signs, junction boxes, raceways, and fittings.

Impedance Heating System. A system in which heat is generated in a pipe or rod, or combination of pipes and rods, by causing current to flow through the pipe or rod by direct connection to an ac voltage source from an isolating transformer. The pipe or rod shall be permitted to be embedded in the surface to be heated, or constitute the exposed components to be heated.

Resistance Heating Element. A specific separate element to generate heat that is embedded in or fastened to the surface to be heated.

Skin-Effect Heating System. A system in which heat is generated on the inner surface of a ferromagnetic envelope embedded in or fastened to the surface to be heated.

39. A building or structure, or portion thereof, for educational, supervisory, or personal care services for more than four children 7 years old or less defines:

- a. Insulated Conductor
- b. Messenger-Supported Wiring
- c. Child Care Facility
- d. Outlet Box Hood
- e. Heating Panel

40. A complete assembly provided with a junction box or a length of flexible conduit for connection to a branch circuit defines:

- a. Insulated Conductor
- b. Messenger-Supported Wiring
- c. Child Care Facility
- d. Outlet Box Hood
- e. Heating Panel

41. A housing shield intended to fit over a faceplate for flush-mounted wiring devices, or an integral component of an outlet box or of a faceplate for flush-mounted wiring devices. The hood does not serve to complete the electrical enclosure; it reduces the risk of water coming in contact with electrical components within the hood, such as attachment plugs, current taps, surge protective devices, direct plugin transformer units, or wiring devices defines:

- a. Insulated Conductor
- b. Messenger-Supported Wiring
- c. Child Care Facility
- d. Outlet Box Hood

e. Heating Panel

42. Messenger-Supported Wiring. An exposed wiring support system using a messenger wire to support insulated conductors by which of the following?

- a. A messenger with rings and saddles for conductor support
- b. A messenger with a field-installed lashing material for conductor support
- c. Factory-assembled aerial cable
- d. Multiplex cables utilizing a bare conductor, factory assembled and twisted with one or more insulated conductors, such as duplex, triplex, or quadruplex type of construction
- e. all of the above

43. Insulated Conductor. For the purposes of this article, an insulated conductor includes which of the following?

- a. Conductor types described in 104.310
- b. Conductor types described in 310.104
- c. Overhead service conductors encased in a polymeric material that has been evaluated for the applied nominal voltage.
- d. b & c only
- e. a & c only

44. A rigid or nonrigid assembly provided with nonheating leads or a terminal junction assembly identified as being suitable for connection to a wiring system defines:

- a. Heating Panel Set
- b. Fixed Electric Space-Heating Equipment Heating System
- c. Impedance Heating System
- d. Resistance Heating Element
- e. Skin-Effect Heating System

45. In Article 426.2 Definitions, _____ means a complete system consisting of components such as heating elements, fastening devices, nonheating circuit wiring, leads, temperature controllers, safety signs, junction boxes, raceways, and fittings.

- a. Heating Panel Set
- b. Fixed Electric Space-Heating Equipment Heating System
- c. Impedance Heating System
- d. Resistance Heating Element
- e. Skin-Effect Heating System

46. In Article 426.2 Definitions, _____ means a system in which heat is generated in a pipe or rod, or combination of pipes and rods, by causing current to flow through the pipe or rod by direct connection to an ac voltage source from an isolating transformer. The pipe or rod shall be permitted to be embedded in the surface to be heated, or constitute the exposed components to be heated.

- a. Heating Panel Set
- b. Fixed Electric Space-Heating Equipment Heating System
- c. Impedance Heating System
- d. Resistance Heating Element
- e. Skin-Effect Heating System

47. In Article 426.2 Definitions, _____ means a specific separate element to generate heat that is embedded in or fastened to the surface to be heated.

- a. Heating Panel Set
- b. Fixed Electric Space-Heating Equipment Heating System
- c. Impedance Heating System
- d. Resistance Heating Element
- e. Skin-Effect Heating System

48. In Article 426.2 Definitions, _____ means a system in which heat is generated on the inner surface of a ferromagnetic envelope embedded in or fastened to the surface to be heated.

- a. Heating Panel Set
- b. Fixed Electric Space-Heating Equipment Heating System
- c. Impedance Heating System
- d. Resistance Heating Element

e. Skin-Effect Heating System

427.2 Definitions. Fixed Electric Heating Equipment for Pipelines and Vessels

Impedance Heating System. A system in which heat is generated in a pipeline or vessel wall by causing current to flow through the pipeline or vessel wall by direct connection to an ac voltage source from a dual-winding transformer.

Induction Heating System. A system in which heat is generated in a pipeline or vessel wall by inducing current and hysteresis effect in the pipeline or vessel wall from an external isolated ac field source.

Pipeline. A length of pipe including pumps, valves, flanges, control devices, strainers, and/or similar equipment for conveying fluids.

Resistance Heating Element. A specific separate element to generate heat that is applied to the pipeline or vessel externally or internally.

Skin-Effect Heating System. A system in which heat is generated on the inner surface of a ferromagnetic envelope attached to a pipeline or vessel, or both.

Vessel. A container such as a barrel, drum, or tank for holding fluids or other material.

430.2 Definitions. Motors, Motor Circuits, and Controllers

Controller. For the purpose of this article, a controller is any switch or device that is normally used to start and stop a motor by making and breaking the motor circuit current.

440.2 Definitions. Air-Conditioning and Refrigerating Equipment

Branch-Circuit Selection Current. The value in amperes to be used instead of the rated-load current in determining the ratings of motor branch-circuit conductors, disconnecting means, controllers, and branch-circuit short-circuit and ground-fault protective devices wherever the running overload protective device permits a sustained current greater than the specified percentage of the rated-load current. The value of branch-circuit selection current will always be equal to or greater than the marked rated-load current.

Leakage-Current Detector-Interrupter (LCDI). A device provided in a power supply cord or cord set that senses leakage current flowing between or from the cord conductors and interrupts the circuit at a predetermined level of leakage current.

Rated-Load Current. The current of a hermetic refrigerant motor-compressor resulting when it is operated at the rated load, rated voltage, and rated frequency of the equipment it serves.

455.2 Definitions. Phase Converters

Manufactured Phase. The manufactured or derived phase originates at the phase converter and is not solidly connected to either of the single-phase input conductors.

Phase Converter. An electrical device that converts singlephase power to 3-phase electric power.

Rotary-Phase Converter. A device that consists of a rotary transformer and capacitor panel(s) that permits the operation of 3-phase loads from a single-phase supply.

Static-Phase Converter. A device without rotating parts, sized for a given 3- phase load to permit operation from a singlephase supply.

49. In Article 427.2 Definitions, _____ means a system in which heat is generated in a pipeline or vessel wall by causing current to flow through the pipeline or vessel wall by direct connection to an ac voltage source from a dual-winding transformer.

- a. Impedance Heating System
- b. Induction Heating System
- c. Resistance Heating Element
- d. Skin-Effect Heating System
- e. Pipeline

50. In Article 427.2 Definitions, _____ means a specific separate element to generate heat that is applied to the pipeline or vessel externally or internally.

- a. Impedance Heating System
- b. Induction Heating System

- c. Resistance Heating Element
- d. Skin-Effect Heating System
- e. Pipeline

51. In Article 427.2 Definitions, _____ means a system in which heat is generated on the inner surface of a ferromagnetic envelope attached to a pipeline or vessel, or both.

- a. Impedance Heating System
- b. Induction Heating System
- c. Resistance Heating Element
- d. Skin-Effect Heating System
- e. Pipeline

52. A system in which heat is generated in a pipeline or vessel wall by inducing current and hysteresis effect in the pipeline or vessel wall from an external isolated ac field source defines:

- a. Impedance Heating System
- b. Induction Heating System
- c. Resistance Heating Element
- d. Skin-Effect Heating System
- e. Pipeline

53. A length of pipe including pumps, valves, flanges, control devices, strainers, and/or similar equipment for conveying fluids defines:

- a. Impedance Heating System
- b. Induction Heating System
- c. Resistance Heating Element
- d. Skin-Effect Heating System
- e. Pipeline

54. A container such as a barrel, drum, or tank for holding fluids or other material defines:

- a. Vessel
- b. Controller
- c. Branch-Circuit Selection Current
- d. Leakage-Current Detector-Interrupter (LCDI)
- e. Rated-Load Current

55. The value in amperes to be used instead of the rated-load current in determining the ratings of motor branch-circuit conductors, disconnecting means, controllers, and branch-circuit short-circuit and ground-fault protective devices wherever the running overload protective device permits a sustained current greater than the specified percentage of the rated-load current. The value of branch-circuit selection current will always be equal to or greater than the marked rated-load current defines:

- a. Vessel
- b. Controller
- c. Branch-Circuit Selection Current
- d. Leakage-Current Detector-Interrupter (LCDI)
- e. Rated-Load Current

56. For the purpose of this article, a controller is any switch or device that is normally used to start and stop a motor by making and breaking the motor circuit current defines:

- a. Vessel
- b. Controller
- c. Branch-Circuit Selection Current
- d. Leakage-Current Detector-Interrupter (LCDI)
- e. Rated-Load Current

57. The current of a hermetic refrigerant motor-compressor resulting when it is operated at the rated load, rated voltage, and rated frequency of the equipment it serves defines:

- a. Vessel
- b. Controller
- c. Branch-Circuit Selection Current
- d. Leakage-Current Detector-Interrupter (LCDI)
- e. Rated-Load Current

58. A device provided in a power supply cord or cord set that senses leakage current flowing between or from the cord conductors and interrupts the circuit at a predetermined level of leakage current defines:
- Vessel
 - Controller
 - Branch-Circuit Selection Current
 - Leakage-Current Detector-Interrupter (LCDI)
 - Rated-Load Current
59. A device that consists of a rotary transformer and capacitor panel(s) that permits the operation of 3-phase loads from a single-phase supply defines:
- Rated-Load Current
 - Manufactured Phase
 - Phase Converter
 - Rotary-Phase Converter
 - Static-Phase Converter
60. A device without rotating parts, sized for a given 3- phase load to permit operation from a singlephase supply defines:
- Rated-Load Current
 - Manufactured Phase
 - Phase Converter
 - Rotary-Phase Converter
 - Static-Phase Converter
61. The manufactured or derived phase originates at the phase converter and is not solidly connected to either of the single-phase input conductors defines:
- Rated-Load Current
 - Manufactured Phase
 - Phase Converter
 - Rotary-Phase Converter
 - Static-Phase Converter
62. An electrical device that converts single phase power to 3-phase electric power defines:
- Rated-Load Current
 - Manufactured Phase
 - Phase Converter
 - Rotary-Phase Converter
 - Static-Phase Converter

480.2 Definitions. Storage Batteries

Cell. The basic electrochemical unit, characterized by an anode and a cathode, used to receive, store, and deliver electrical energy.

Container. A vessel that holds the plates, electrolyte, and other elements of a single unit in a battery.

Electrolyte. The medium that provides the ion transport mechanism between the positive and negative electrodes of a cell.

Intercell Connector. An electrically conductive bar or cable used to connect adjacent cells.

Intertier Connector. An electrical conductor used to connect two cells on different tiers of the same rack or different shelves of the same rack.

Nominal Voltage (Battery or Cell). The value assigned to a cell or battery of a given voltage class for the purpose of convenient designation. The operating voltage of the cell or battery may vary above or below this value.

Sealed Cell or Battery. A cell or battery that has no provision for the routine addition of water or electrolyte or for external measurement of electrolyte specific gravity and might contain pressure relief venting.

Storage Battery. A battery comprised of one or more rechargeable cells of the lead-acid, nickel-cadmium, or other rechargeable electrochemical types.

Terminal. That part of a cell, container, or battery to which an external connection is made (commonly identified as post, pillar, pole, or terminal post).

504.2 Definitions. Intrinsically Safe Systems

Different Intrinsically Safe Circuits. Intrinsically safe circuits in which the possible interconnections have not been evaluated and identified as intrinsically safe.

Intrinsically Safe Circuit [as applied to Hazardous (Classified) Locations]. A circuit in which any spark or thermal effect is incapable of causing ignition of a mixture of flammable or combustible material in air under prescribed test conditions.

505.2 Definitions. Class III Locations

Encapsulation “m”. Type of protection where electrical parts that could ignite an explosive atmosphere by either sparking or heating are enclosed in a compound in such a way that this explosive atmosphere cannot be ignited.

Flameproof “d”. Type of protection where the enclosure will withstand an internal explosion of a flammable mixture that has penetrated into the interior, without suffering damage and without causing ignition, through any joints or structural openings in the enclosure of an external explosive gas atmosphere consisting of one or more of the gases or vapors for which it is designed.

Increased Safety “e”. Type of protection applied to electrical equipment that does not produce arcs or sparks in normal service and under specified abnormal conditions, in which additional measures are applied so as to give increased security against the possibility of excessive temperatures and of the occurrence of arcs and sparks.

Intrinsic Safety “i”. Type of protection where any spark or thermal effect is incapable of causing ignition of a mixture of flammable or combustible material in air under prescribed test conditions.

Oil Immersion “o”. Type of protection where electrical equipment is immersed in a protective liquid in such a way that an explosive atmosphere that may be above the liquid or outside the enclosure cannot be ignited.

Powder Filling “q”. Type of protection where electrical parts capable of igniting an explosive atmosphere are fixed in position and completely surrounded by filling material (glass or quartz powder) to prevent the ignition of an external explosive atmosphere.

Pressurization “p”. Type of protection for electrical equipment that uses the technique of guarding against the ingress of the external atmosphere, which may be explosive, into an enclosure by maintaining a protective gas therein at a pressure above that of the external atmosphere.

Type of Protection “n”. Type of protection where electrical equipment, in normal operation, is not capable of igniting a surrounding explosive gas atmosphere and a fault capable of causing ignition is not likely to occur.

63. An electrical conductor used to connect two cells on different tiers of the same rack or different shelves of the same rack defines:

- a. Cell
- b. Container
- c. Electrolyte
- d. Intercell Connector
- e. Intertier Connector

64. The medium that provides the ion transport mechanism between the positive and negative electrodes of a cell defines:

- a. Cell
- b. Container
- c. Electrolyte
- d. Intercell Connector
- e. Intertier Connector

65. The basic electrochemical unit, characterized by an anode and a cathode, used to receive, store, and deliver electrical energy defines:

- a. Cell
- b. Container

- c. Electrolyte
 - d. Intercell Connector
 - e. Intertier Connector
66. A vessel that holds the plates, electrolyte, and other elements of a single unit in a battery defines:
- a. Cell
 - b. Container
 - c. Electrolyte
 - d. Intercell Connector
 - e. Intertier Connector
67. An electrically conductive bar or cable used to connect adjacent cells defines:
- a. Cell
 - b. Container
 - c. Electrolyte
 - d. Intercell Connector
 - e. Intertier Connector
68. That part of a cell, container, or battery to which an external connection is made defines:
- a. Nominal Voltage (Battery or Cell)
 - b. Sealed Cell or Battery
 - c. Storage Battery
 - d. Terminal
 - e. Different Intrinsically Safe Circuits
69. A cell or battery that has no provision for the routine addition of water or electrolyte or for external measurement of electrolyte specific gravity and might contain pressure relief venting defines:
- a. Nominal Voltage (Battery or Cell)
 - b. Sealed Cell or Battery
 - c. Storage Battery
 - d. Terminal
 - e. Different Intrinsically Safe Circuits
70. The value assigned to a cell or battery of a given voltage class for the purpose of convenient designation. The operating voltage of the cell or battery may vary above or below this value defines:
- a. Nominal Voltage (Battery or Cell)
 - b. Sealed Cell or Battery
 - c. Storage Battery
 - d. Terminal
 - e. Different Intrinsically Safe Circuits
71. Intrinsically safe circuits in which the possible interconnections have not been evaluated and identified as intrinsically safe defines:
- a. Nominal Voltage (Battery or Cell)
 - b. Sealed Cell or Battery
 - c. Storage Battery
 - d. Terminal
 - e. Different Intrinsically Safe Circuits
72. A battery comprised of one or more rechargeable cells of the lead-acid, nickel-cadmium, or other rechargeable electrochemical types defines:
- a. Nominal Voltage (Battery or Cell)
 - b. Sealed Cell or Battery
 - c. Storage Battery
 - d. Terminal
 - e. Different Intrinsically Safe Circuits
73. Terminal. That part of a cell, container, or battery to which an external connection is made (commonly identified as _____).
- a. post
 - b. pillar
 - c. pole

- d. terminal post
- e. all of the above

74. Type of protection where the enclosure will withstand an internal explosion of a flammable mixture that has penetrated into the interior, without suffering damage and without causing ignition, through any joints or structural openings in the enclosure of an external explosive gas atmosphere consisting of one or more of the gases or vapors for which it is designed defines:

- a. Intrinsically Safe Circuit [as applied to Hazardous (Classified) Locations]
- b. Encapsulation “m”
- c. Flameproof “d”
- d. Increased Safety “e”
- e. Intrinsic Safety “i”

75. Type of protection where electrical parts that could ignite an explosive atmosphere by either sparking or heating are enclosed in a compound in such a way that this explosive atmosphere cannot be ignited defines:

- a. Intrinsically Safe Circuit [as applied to Hazardous (Classified) Locations]
- b. Encapsulation “m”
- c. Flameproof “d”
- d. Increased Safety “e”
- e. Intrinsic Safety “i”

76. Type of protection applied to electrical equipment that does not produce arcs or sparks in normal service and under specified abnormal conditions, in which additional measures are applied so as to give increased security against the possibility of excessive temperatures and of the occurrence of arcs and sparks defines:

- a. Intrinsically Safe Circuit [as applied to Hazardous (Classified) Locations]
- b. Encapsulation “m”
- c. Flameproof “d”
- d. Increased Safety “e”
- e. Intrinsic Safety “i”

77. A circuit in which any spark or thermal effect is incapable of causing ignition of a mixture of flammable or combustible material in air under prescribed test conditions.

- a. Intrinsically Safe Circuit [as applied to Hazardous (Classified) Locations]
- b. Encapsulation “m”
- c. Flameproof “d”
- d. Increased Safety “e”
- e. Intrinsic Safety “i”

78. Type of protection where any spark or thermal effect is incapable of causing ignition of a mixture of flammable or combustible material in air under prescribed test conditions defines:

- a. Intrinsically Safe Circuit [as applied to Hazardous (Classified) Locations]
- b. Encapsulation “m”
- c. Flameproof “d”
- d. Increased Safety “e”
- e. Intrinsic Safety “i”

79. Type of protection where electrical equipment, in normal operation, is not capable of igniting a surrounding explosive gas atmosphere and a fault capable of causing ignition is not likely to occur defines:

- a. Intrinsic Safety “i”
- b. Oil Immersion “o”
- c. Powder Filling “q”

- d. Pressurization “p”
- e. Type of Protection “n”

80. Type of protection for electrical equipment that uses the technique of guarding against the ingress of the external atmosphere, which may be explosive, into an enclosure by maintaining a protective gas therein at a pressure above that of the external atmosphere defines:

- a. Intrinsic Safety “i”
- b. Oil Immersion “o”
- c. Powder Filling “q”
- d. Pressurization “p”
- e. Type of Protection “n”

81. Type of protection where electrical equipment is immersed in a protective liquid in such a way that an explosive atmosphere that may be above the liquid or outside the enclosure cannot be ignited defines:

- a. Intrinsic Safety “i”
- b. Oil Immersion “o”
- c. Powder Filling “q”
- d. Pressurization “p”
- e. Type of Protection “n”

82. Type of protection where electrical parts capable of igniting an explosive atmosphere are fixed in position and completely surrounded by filling material (glass or quartz powder) to prevent the ignition of an external explosive atmosphere defines:

- a. Intrinsic Safety “i”
- b. Oil Immersion “o”
- c. Powder Filling “q”
- d. Pressurization “p”
- e. Type of Protection “n”

506.2 Definitions. Zone 20, 21, and 22 Locations for Combustible Dusts or Ignitable Fibers/Flyings

Protection by Encapsulation “m”. Type of protection where electrical parts that could cause ignition of a mixture of combustible dust or fibers/flyings in air are protected by enclosing them in a compound in such a way that the explosive atmosphere cannot be ignited.

Protection by Enclosure “t”. Type of protection for explosive dust atmospheres where electrical apparatus is provided with an enclosure providing dust ingress protection and a means to limit surface temperatures.

Protection by Pressurization “p”. Type of protection that guards against the ingress of a mixture of combustible dust or fibers/flyings in air into an enclosure containing electrical equipment by providing and maintaining a protective gas atmosphere inside the enclosure at a pressure above that of the external atmosphere.

511.2 Definitions. Commercial Garages, Repair and Storage

Major Repair Garage. A building or portions of a building where major repairs, such as engine overhauls, painting, body and fender work, and repairs that require draining of the motor vehicle fuel tank are performed on motor vehicles, including associated floor space used for offices, parking, or showrooms.

Minor Repair Garage. A building or portions of a building used for lubrication, inspection, and minor automotive maintenance work, such as engine tune-ups, replacement of parts, fluid changes (e.g., oil, antifreeze, transmission fluid, brake fluid, air-conditioning refrigerants), brake system repairs, tire rotation, and similar routine maintenance work, including associated floor space used for offices, parking, or showrooms.

513.2 Definitions. Aircraft Hangars.

Aircraft Painting Hangar. An aircraft hangar constructed for the express purpose of spray/coating/dipping applications and provided with dedicated ventilation supply and exhaust.

516.2 Definitions. Spray Application, Dipping, Coating, and Printing Processes Using Flammable or Combustible Materials

Limited Finishing Workstation. An apparatus that is capable of confining the vapors, mists, residues, dusts, or deposits that are generated by a spray application process but does not meet the requirements of a spray booth or spray room, as herein defined.

Membrane Enclosure. A temporary enclosure used for the spraying of workpieces that cannot be moved into a spray booth where open spraying is not practical due to the proximity to other operations, finish quality, or concerns such as the collection of overspray.

Outdoor Spray Area. A spray area that is outside the confines of a building or that has a canopy or roof that does not limit the dissipation of the heat of a fire or dispersion of flammable vapors and does not restrict fire-fighting access and control. For the purpose of this standard, an outdoor spray area can be treated as an unenclosed spray area.

Spray Area. Any fully enclosed, partly enclosed, or unenclosed area in which dangerous quantities of flammable or combustible vapors, mists, residues, dusts, or deposits are present due to the operation of spray processes, including (1) any area in the direct path of a spray application process; (2) the interior of a spray booth, spray room, or limited finishing workstation, as herein defined; (3) the interior of any exhaust plenum, eliminator section, or scrubber section; (4) the interior of any exhaust duct or exhaust stack leading from a spray application process; (5) the interior of any air recirculation path up to and including recirculation particulate filters; (6) any solvent concentrator (pollution abatement) unit or solvent recovery (distillation) unit; and (7) the inside of a membrane enclosure. The following are not part of the spray area: (1) fresh air makeup units; (2) air supply ducts and air supply plenums; (3) recirculation air supply ducts downstream of recirculation particulate filters; and (4) exhaust ducts from solvent concentrator (pollution abatement) units

Spray Booth. A power-ventilated enclosure for a spray application operation or process that confines and limits the escape of the material being sprayed, including vapors, mists, dusts, and residues that are produced by the spraying operation and conducts or directs these materials to an exhaust system.

Spray Room. A power-ventilated fully enclosed room used exclusively for open spraying of flammable or combustible materials.

Unenclosed Spray Area. Any spray area that is not confined by a limited finishing workstation, spray booth, or spray room, as herein defined.

83. A building or portions of a building where major repairs, such as engine overhauls, painting, body and fender work, and repairs that require draining of the motor vehicle fuel tank are performed on motor vehicles:

- a. Major Repair Garage
- b. Minor Repair Garage
- c. Aircraft Painting Hangar
- d. Limited Finishing Workstation
- e. Membrane Enclosure

84. A building or portions of a building used for lubrication, inspection, and minor automotive maintenance work, such as engine tune-ups, replacement of parts, fluid changes, brake system repairs, tire rotation, and similar routine maintenance work, including associated floor space used for offices, parking, or showrooms defines:

- a. Major Repair Garage
- b. Minor Repair Garage
- c. Aircraft Painting Hangar
- d. Limited Finishing Workstation
- e. Membrane Enclosure

85. A temporary enclosure used for the spraying of workpieces that cannot be moved into a spray booth where open spraying is not practical due to the proximity to other operations, finish quality, or concerns such as the collection of overspray defines:

- a. Major Repair Garage
- b. Minor Repair Garage
- c. Aircraft Painting Hangar
- d. Limited Finishing Workstation
- e. Membrane Enclosure

86. An apparatus that is capable of confining the vapors, mists, residues, dusts, or deposits that are generated by a spray application process but does not meet the requirements of a spray booth or spray room, as herein defined defines:

- a. Major Repair Garage
- b. Minor Repair Garage
- c. Aircraft Painting Hangar
- d. Limited Finishing Workstation
- e. Membrane Enclosure

87. An aircraft hangar constructed for the express purpose of spray/coating/dipping applications and provided with dedicated ventilation supply and exhaust defines:

- a. Major Repair Garage
- b. Minor Repair Garage
- c. Aircraft Painting Hangar
- d. Limited Finishing Workstation
- e. Membrane Enclosure

88. Major Repair Garage. A building or portions of a building where major repairs, such as engine overhauls, painting, body and fender work, and repairs that require draining of the motor vehicle fuel tank are performed on motor vehicles, including which of the following?

- a. associated floor space used for offices
- b. parking
- c. showrooms
- d. all of the above
- e. only a & b

89. Minor Repair Garage. A building or portions of a building used for lubrication, inspection, and minor automotive maintenance work, such as engine tune-ups, replacement of parts, fluid changes (e.g., oil, _____), brake system repairs, tire rotation, and similar routine maintenance work, including associated floor space used for offices, parking, or showrooms.

- a. antifreeze
- b. transmission fluid
- c. brake fluid
- d. air-conditioning refrigerants
- e. all of the above

90. A power-ventilated enclosure for a spray application operation or process that confines and limits the escape of the material being sprayed, including vapors, mists, dusts, and residues that are produced by the spraying operation and conducts or directs these materials to an exhaust system defines:

- a. Outdoor Spray Area
- b. Spray Area
- c. Spray Booth
- d. Spray Room
- e. Unenclosed Spray Area

91. Any fully enclosed, partly enclosed, or unenclosed area in which dangerous quantities of flammable or combustible vapors, mists, residues, dusts, or deposits are present due to the operation of spray processes defines:

- a. Outdoor Spray Area
- b. Spray Area
- c. Spray Booth
- d. Spray Room
- e. Unenclosed Spray Area

92. A power-ventilated fully enclosed room used exclusively for open spraying of flammable or combustible materials defines:

- a. Outdoor Spray Area
- b. Spray Area
- c. Spray Booth
- d. Spray Room
- e. Unenclosed Spray Area

93. A spray area that is outside the confines of a building or that has a canopy or roof that does not limit the dissipation of the heat of a fire or dispersion of flammable vapors and does not restrict fire-fighting access and control. For the purpose of this standard, an outdoor spray area can be treated as an unenclosed spray area defines:

- a. Outdoor Spray Area
- b. Spray Area
- c. Spray Booth
- d. Spray Room
- e. Unenclosed Spray Area

94. Any spray area that is not confined by a limited finishing workstation, spray booth, or spray room, as herein defined defines:

- a. Outdoor Spray Area
- b. Spray Area
- c. Spray Booth
- d. Spray Room
- e. Unenclosed Spray Area

95. Spray Area. Any fully enclosed, partly enclosed, or unenclosed area in which dangerous quantities of flammable or combustible vapors, mists, residues, dusts, or deposits are present due to the operation of spray processes, includes which of the following?

- a. any area in the direct path of a spray application process
- b. the interior of a spray booth, spray room, or limited finishing workstation, as herein defined
- c. the interior of any exhaust plenum, eliminator section, or scrubber section
- d. all of the above
- e. none of the above

96. Spray Area. Any fully enclosed, partly enclosed, or unenclosed area in which dangerous quantities of flammable or combustible vapors, mists, residues, dusts, or deposits are present due to the operation of spray processes, includes which of the following?

- a. the interior of any exhaust duct or exhaust stack leading from a spray application process
- b. the interior of any air recirculation path up to and including recirculation particulate filters
- c. any solvent concentrator (pollution abatement) unit or solvent recovery (distillation) unit
- d. the inside of a membrane enclosure
- e. all of the above

97. Spray Area. Any fully enclosed, partly enclosed, or unenclosed area in which dangerous quantities of flammable or combustible vapors, mists, residues, dusts, or deposits are present due to the operation of spray processes, which of the following are not part of the spray area

- a. fresh air makeup units
- b. air supply ducts and air supply plenums
- c. recirculation air supply ducts downstream of recirculation particulate filters
- d. exhaust ducts from solvent concentrator (pollution abatement) units
- e. all of the above

517.2 Definitions. Health Care Facilities

Alternate Power Source. One or more generator sets, or battery systems where permitted, intended to provide power during the interruption of the normal electrical service; or the public utility electrical service intended to provide power during interruption of service normally provided by the generating facilities on the premises.

Ambulatory Health Care Occupancy. An occupancy used to provide services or treatment simultaneously to four or more the following:

- (1) Treatment for patients that renders the patients incapable of taking action for self-preservation under emergency conditions without assistance of others.
- (2) Anesthesia that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others.
- (3) Emergency or urgent care for patients who, due to the nature of their injury or illness, are incapable of taking action for self-preservation under emergency conditions without the assistance of others.

Anesthetizing Location. Any area of a facility that has been designated to be used for the administration of any flammable or nonflammable inhalation anesthetic agent in the course of examination or treatment, including the use of such agents for relative analgesia.

Battery-Powered Lighting Units. Individual unit equipment for backup illumination consisting of the following:

- (1) Rechargeable battery
- (2) Battery-charging means
- (3) Provisions for one or more lamps mounted on the equipment, or with terminals for remote lamps, or both
- (4) Relaying device arranged to energize the lamps automatically upon failure of the supply to the unit equipment

Critical Branch. A system of feeders and branch circuits supplying power for task illumination, fixed equipment, select receptacles, and select power circuits serving areas and functions related to patient care that are automatically connected to alternate power sources by one or more transfer switches during interruption of normal power source.

Electrical Life-Support Equipment. Electrically powered equipment whose continuous operation is necessary to maintain a patient's life.

Equipment Branch. A system of feeders and branch circuits arranged for delayed, automatic, or manual connection to the alternate power source and that serves primarily 3-phase power equipment.

Essential Electrical System. A system comprised of alternate sources of power and all connected distribution systems and ancillary equipment, designed to ensure continuity of electrical power to designated areas and functions of a health care facility during disruption of normal power sources, and also to minimize disruption within the internal wiring system.

Exposed Conductive Surfaces. Those surfaces that are capable of carrying electric current and that are unprotected, uninsulated, unenclosed, or unguarded, permitting personal contact.

Fault Hazard Current. See *Hazard Current*.

Flammable Anesthetics. Gases or vapors, such as fluroxene, cyclopropane, divinyl ether, ethyl chloride, ethyl ether, and ethylene, which may form flammable or explosive mixtures with air, oxygen, or reducing gases such as nitrous oxide.

Flammable Anesthetizing Location. Any area of the facility that has been designated to be used for the administration of any flammable inhalation anesthetic agents in the normal course of examination or treatment.

Governing Body. The person or persons who have the overall legal responsibility for the operation of a health care facility.

Hazard Current. For a given set of connections in an isolated power system, the total current that would flow through a low impedance if it were connected between either isolated conductor and ground.

Fault Hazard Current. The hazard current of a given isolated system with all devices connected except the line isolation monitor.

Monitor Hazard Current. The hazard current of the line isolation monitor alone.

Total Hazard Current. The hazard current of a given isolated system with all devices, including the line isolation monitor, connected.

Health Care Facilities. Buildings, portions of buildings, or mobile enclosures in which human medical, dental, psychiatric, nursing, obstetrical, or surgical care are provided.

98. One or more generator sets, or battery systems where permitted, intended to provide power during the interruption of the normal electrical service; or the public utility electrical service intended to provide power during interruption of service normally provided by the generating facilities on the premises defines:

- a. Alternate Power Source
- b. Ambulatory Health Care Occupancy
- c. Anesthetizing Location
- d. Battery-Powered Lighting Units
- e. Critical Branch

99. Any area of a facility that has been designated to be used for the administration of any flammable or nonflammable inhalation anesthetic agent in the course of examination or treatment, including the use of such agents for relative analgesia defines:

- a. Alternate Power Source
- b. Ambulatory Health Care Occupancy
- c. Anesthetizing Location
- d. Battery-Powered Lighting Units
- e. Critical Branch

100. A system of feeders and branch circuits supplying power for task illumination, fixed equipment, select receptacles, and select power circuits serving areas and functions related to patient care that are automatically connected to alternate power sources by one or more transfer switches during interruption of normal power source defines:

- a. Alternate Power Source
- b. Ambulatory Health Care Occupancy
- c. Anesthetizing Location
- d. Battery-Powered Lighting Units
- e. Critical Branch

101. Individual unit equipment for backup illumination defines:

- a. Alternate Power Source
- b. Ambulatory Health Care Occupancy
- c. Anesthetizing Location
- d. Battery-Powered Lighting Units
- e. Critical Branch

102. Battery-Powered Lighting Units. Individual unit equipment for backup illumination consists of which of the following?

- a. Rechargeable battery
- b. Battery-charging means
- c. Provisions for one or more lamps mounted on the equipment, or with terminals for remote lamps, or both
- d. Relaying device arranged to energize the lamps automatically upon failure of the supply to the unit equipment
- e. all of the above

103. Ambulatory Health Care Occupancy. An occupancy used to provide services or treatment simultaneously to which of the following?

- a. Treatment for patients that renders the patients incapable of taking action for self-preservation under emergency conditions without assistance of others.
- b. Anesthesia that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others.
- c. Emergency or urgent care for patients who, due to the nature of their injury or illness, are incapable of taking action for self-preservation under emergency conditions without the assistance of others.
- d. all of the above
- e. none of the above

104. A system comprised of alternate sources of power and all connected distribution systems and ancillary equipment, designed to ensure continuity of electrical power to designated areas and functions of a health care facility during disruption of normal power sources, and also to minimize disruption within the internal wiring system defines:

- a. Critical Branch
- b. Electrical Life-Support Equipment
- c. Equipment Branch

- d. Essential Electrical System
- e. Exposed Conductive Surfaces

105. A system of feeders and branch circuits supplying power for task illumination, fixed equipment, select receptacles, and select power circuits serving areas and functions related to patient care that are automatically connected to alternate power sources by one or more transfer switches during interruption of normal power source defines:

- a. Critical Branch
- b. Electrical Life-Support Equipment
- c. Equipment Branch
- d. Essential Electrical System
- e. Exposed Conductive Surfaces

106. Electrically powered equipment whose continuous operation is necessary to maintain a patient's life defines:

- a. Critical Branch
- b. Electrical Life-Support Equipment
- c. Equipment Branch
- d. Essential Electrical System
- e. Exposed Conductive Surfaces

107. Those surfaces that are capable of carrying electric current and that are unprotected, uninsulated, unenclosed, or unguarded, permitting personal contact defines:

- a. Critical Branch
- b. Electrical Life-Support Equipment
- c. Equipment Branch
- d. Essential Electrical System
- e. Exposed Conductive Surfaces

108. A system of feeders and branch circuits arranged for delayed, automatic, or manual connection to the alternate power source and that serves primarily 3-phase power equipment defines:

- a. Critical Branch
- b. Electrical Life-Support Equipment
- c. Equipment Branch
- d. Essential Electrical System
- e. Exposed Conductive Surfaces

109. The person or persons who have the overall legal responsibility for the operation of a health care facility defines:

- a. Flammable Anesthetics
- b. Flammable Anesthetizing Location
- c. Governing Body
- d. Hazard Current
- e. Health Care Facilities

110. For a given set of connections in an isolated power system, the total current that would flow through a low impedance if it were connected between either isolated conductor and ground defines:

- a. Flammable Anesthetics
- b. Flammable Anesthetizing Location
- c. Governing Body
- d. Hazard Current
- e. Health Care Facilities

111. Buildings, portions of buildings, or mobile enclosures in which human medical, dental, psychiatric, nursing, obstetrical, or surgical care are provided defines:

- a. Flammable Anesthetics
- b. Flammable Anesthetizing Location
- c. Governing Body
- d. Hazard Current
- e. Health Care Facilities

112. Gases or vapors, such as fluroxene, cyclopropane, divinyl ether, ethyl chloride, ethyl ether, and ethylene, which may form flammable or explosive mixtures with air, oxygen, or reducing gases such as nitrous oxide defines:

- a. Flammable Anesthetics
- b. Flammable Anesthetizing Location
- c. Governing Body
- d. Hazard Current
- e. Health Care Facilities

113. Any area of the facility that has been designated to be used for the administration of any flammable inhalation anesthetic agents in the normal course of examination or treatment defines:

- a. Flammable Anesthetics
- b. Flammable Anesthetizing Location
- c. Governing Body
- d. Hazard Current
- e. Health Care Facilities

114. The hazard current of a given isolated system with all devices connected except the line isolation monitor defines:

- a. Fault Hazard Current
- b. Monitor Hazard Current
- c. Total Hazard Current
- d. none of the above

115. The hazard current of a given isolated system with all devices, including the line isolation monitor, connected defines:

- a. Fault Hazard Current
- b. Monitor Hazard Current
- c. Total Hazard Current
- d. none of the above

116. The hazard current of the line isolation monitor alone defines:

- a. Fault Hazard Current
- b. Monitor Hazard Current
- c. Total Hazard Current
- d. none of the above

517.2 Definitions. Health Care Facilities

Hospital. A building or portion thereof used on a 24-hour basis for the medical, psychiatric, obstetrical, or surgical care of four or more inpatients.

Isolated Power System. A system comprising an isolating transformer or its equivalent, a line isolation monitor, and its ungrounded circuit conductors.

Isolation Transformer. A transformer of the multiple-winding type, with the primary and secondary windings physically separated, that inductively couples its ungrounded secondary winding (s) to the grounded feeder system that energizes its primary winding(s).

Invasive Procedure. Any procedure that penetrates the protective surfaces of a patient's body (i.e., skin, mucous membrane, cornea) and that is performed with an aseptic field (procedural site). Not included in this category are placement of peripheral intravenous needles or catheters used to administer fluids and/or medications, gastrointestinal endoscopies (i.e., sigmoidoscopies), insertion of urethral catheters, and other similar procedures.

Life Safety Branch. A system of feeders and branch circuits supplying power for lighting, receptacles, and equipment essential for life safety that is automatically connected to alternate power sources by one or more transfer switches during interruption of the normal power source.

Limited Care Facility. A building or portion thereof used on a 24-hour basis for the housing of four or more persons who are incapable of self-preservation because of age; physical limitation due to accident or illness; or limitations such as mental retardation/developmental disability, mental illness, or chemical dependency.

Line Isolation Monitor. A test instrument designed to continually check the balanced and unbalanced impedance from each line of an isolated circuit to ground and equipped with a built in test circuit to exercise the alarm without adding to the leakage current hazard.

Medical Office (Dental Office). A building or part thereof in which the following occur: (1) examinations and minor treatments or procedures are performed under the continuous supervision of a medical or dental professional; (2) only sedation or local anesthesia is involved and treatment or procedures do not render the patient incapable of self-preservation under emergency conditions; and (3) overnight stays for patients or 24-hour operation are not provided.

Monitor Hazard Current. See *Hazard Current*.

Nurses' Stations. Areas intended to provide a center of nursing activity for a group of nurses serving bed patients, where the patient calls are received, nurses are dispatched, nurses' notes written, inpatient charts prepared, and medications prepared for distribution to patients. Where such activities are carried on in more than one location within a nursing unit, all such separate areas are considered a part of the nurses' station.

Nursing Home. A building or portion of a building used on a 24-hour basis for the housing and nursing care of four or more persons who, because of mental or physical incapacity, might be unable to provide for their own needs and safety without the assistance of another person.

Patient Bed Location. The location of a patient sleeping bed, or the bed or procedure table of a critical care space.

Patient Care Space. Any space of a health care facility wherein patients are intended to be examined or treated.
Basic Care (Category 3) Space. Space in which failure of equipment or a system is not likely to cause injury to the patients, staff, or visitors but can cause patient discomfort.

General Care (Category 2) Space. Space in which failure of equipment or a system is likely to cause minor injury to patients, staff, or visitors.

Critical Care (Category 1) Space. Space in which failure of equipment or a system is likely to cause major injury or death of patients, staff, or visitors.

Support (Category 4) Space. Space in which failure of equipment or a system is not likely to have a physical impact on patient care.

Patient Care Vicinity. A space, within a location intended for the examination and treatment of patients, extending 1.8 m (6 ft) beyond the normal location of the patient bed, chair, table, treadmill, or other device that supports the patient during examination and treatment and extending vertically to 2.3 m (7 ft 6 in.) above the floor.

Patient Equipment Grounding Point. A jack or terminal that serves as the collection point for redundant grounding of electrical appliances serving a patient care vicinity or for grounding other items in order to eliminate electromagnetic interference problems.

117. A system comprising an isolating transformer or its equivalent, a line isolation monitor, and its ungrounded circuit conductors defines:

- a. Hospital
- b. Isolated Power System
- c. Isolation Transformer
- d. Invasive Procedure
- e. Life Safety Branch

118. A transformer of the multiple-winding type, with the primary and secondary windings physically separated, that inductively couples its ungrounded secondary winding (s) to the grounded feeder system that energizes its primary winding(s) defines:

- a. Hospital
- b. Isolated Power System
- c. Isolation Transformer
- d. Invasive Procedure
- e. Life Safety Branch

119. A building or portion thereof used on a 24-hour basis for the medical, psychiatric, obstetrical, or surgical care of four or more inpatients defines:

- a. Hospital
- b. Isolated Power System
- c. Isolation Transformer
- d. Invasive Procedure
- e. Life Safety Branch

120. Any procedure that penetrates the protective surfaces of a patient's body (i.e., skin, mucous membrane, cornea) and that is performed with an aseptic field (procedural site) defines:

- a. Hospital
- b. Isolated Power System
- c. Isolation Transformer
- d. Invasive Procedure
- e. Life Safety Branch

121. Invasive Procedure. Any procedure that penetrates the protective surfaces of a patient's body (i.e., skin, mucous membrane, cornea) and that is performed with an aseptic field (procedural site). Not included in this category are which of the following?

- a. placement of peripheral intravenous needles
- b. catheters used to administer fluids and/or medications
- c. gastrointestinal endoscopies
- d. insertion of urethral catheters
- e. all of the above

122. A system of feeders and branch circuits supplying power for lighting, receptacles, and equipment essential for life safety that is automatically connected to alternate power sources by one or more transfer switches during interruption of the normal power source defines:

- a. Hospital
- b. Isolated Power System
- c. Isolation Transformer
- d. Invasive Procedure
- e. Life Safety Branch

123. A building or portion of a building used on a 24-hour basis for the housing and nursing care of four or more persons who, because of mental or physical incapacity, might be unable to provide for their own needs and safety without the assistance of another person defines:

- a. Limited Care Facility
- b. Line Isolation Monitor
- c. Medical Office (Dental Office)
- d. Nurses' Stations
- e. Nursing Home

124. Areas intended to provide a center of nursing activity for a group of nurses serving bed patients, where the patient calls are received, nurses are dispatched, nurses' notes written, inpatient charts prepared, and medications prepared for distribution to patients. Where such activities are carried on in more than one location within a nursing unit, all such separate areas are considered a part of the nurses' station defines:

- a. Limited Care Facility
- b. Line Isolation Monitor
- c. Medical Office (Dental Office)
- d. Nurses' Stations
- e. Nursing Home

125. A building or part thereof in which the following occur: (1) examinations and minor treatments or procedures are performed under the continuous supervision of a medical or dental professional; (2) only sedation or local anesthesia is involved and treatment or procedures do not render the patient incapable of self-preservation under emergency conditions; and (3) overnight stays for patients or 24-hour operation are not provided defines:

- a. Limited Care Facility

- b. Line Isolation Monitor
- c. Medical Office (Dental Office)
- d. Nurses' Stations
- e. Nursing Home

126. A test instrument designed to continually check the balanced and unbalanced impedance from each line of an isolated circuit to ground and equipped with a built in test circuit to exercise the alarm without adding to the leakage current hazard defines:

- a. Limited Care Facility
- b. Line Isolation Monitor
- c. Medical Office (Dental Office)
- d. Nurses' Stations
- e. Nursing Home

127. A building or portion thereof used on a 24-hour basis for the housing of four or more persons who are incapable of self-preservation because of age; physical limitation due to accident or illness; or limitations such as mental retardation/developmental disability, mental illness, or chemical dependency defines:

- a. Limited Care Facility
- b. Line Isolation Monitor
- c. Medical Office (Dental Office)
- d. Nurses' Stations
- e. Nursing Home

128. The location of a patient sleeping bed, or the bed or procedure table of a critical care space defines:

- a. Patient Bed Location
- b. Patient Care Space
- c. Patient Care Vicinity
- d. Patient Equipment Grounding Point

129. A jack or terminal that serves as the collection point for redundant grounding of electrical appliances serving a patient care vicinity or for grounding other items in order to eliminate electromagnetic interference problems defines:

- a. Patient Bed Location
- b. Patient Care Space
- c. Patient Care Vicinity
- d. Patient Equipment Grounding Point

130. A space, within a location intended for the examination and treatment of patients, extending 1.8 m (6 ft) beyond the normal location of the patient bed, chair, table, treadmill, or other device that supports the patient during examination and treatment and extending vertically to

2.3 m (7 ft 6 in.) above the floor defines:

- a. Patient Bed Location
- b. Patient Care Space
- c. Patient Care Vicinity
- d. Patient Equipment Grounding Point

131. Any space of a health care facility wherein patients are intended to be examined or treated defines:

- a. Patient Bed Location
- b. Patient Care Space
- c. Patient Care Vicinity
- d. Patient Equipment Grounding Point

132. Space in which failure of equipment or a system is likely to cause minor injury to patients, staff, or visitors defines:

- a. Basic Care (Category 3) Space
- b. General Care (Category 2) Space
- c. Critical Care (Category 1) Space
- d. Support (Category 4) Space

133. Space in which failure of equipment or a system is not likely to have a physical impact on patient care defines:

- a. Basic Care (Category 3) Space
- b. General Care (Category 2) Space
- c. Critical Care (Category 1) Space
- d. Support (Category 4) Space

134. Space in which failure of equipment or a system is likely to cause major injury or death of patients, staff, or visitors defines:

- a. Basic Care (Category 3) Space
- b. General Care (Category 2) Space
- c. Critical Care (Category 1) Space
- d. Support (Category 4) Space

135. Space in which failure of equipment or a system is not likely to cause injury to the patients, staff, or visitors but can cause patient discomfort defines:

- a. Basic Care (Category 3) Space
- b. General Care (Category 2) Space
- c. Critical Care (Category 1) Space
- d. Support (Category 4) Space

517.2 Definitions. Health Care Facilities

Psychiatric Hospital. A building used exclusively for the psychiatric care, on a 24-hour basis, of four or more inpatients.

Reference Grounding Point. The ground bus of the panelboard or isolated power system panel supplying the patient care room.

Relative Analgesia. A state of sedation and partial block of pain perception produced in a patient by the inhalation of concentrations of nitrous oxide insufficient to produce loss of consciousness (conscious sedation).

Selected Receptacles. A minimum number of receptacles selected by the governing body of a facility as necessary to provide essential patient care and facility services during loss of normal power.

Task Illumination. Provisions for the minimum lighting required to carry out necessary tasks in the described areas, including safe access to supplies and equipment and access to exits.

Total Hazard Current. The hazard current of a given isolated system with all devices, including the line isolation monitor, connected.

Wet Procedure Location. The area in a patient care space where a procedure is performed that is normally subject to wet conditions while patients are present, including standing fluids on the floor or drenching of the work area, either of which condition is intimate to the patient or staff.

X-Ray Installations, Long-Time Rating. A rating based on an operating interval of 5 minutes or longer.

X-Ray Installations, Mobile. X-ray equipment mounted on a permanent base with wheels, casters, or a combination of both to facilitate moving the equipment while completely assembled.

X-Ray Installations, Momentary Rating. A rating based on an operating interval that does not exceed 5 seconds.

X-Ray Installations, Portable. X-ray equipment designed to be hand carried.

X-Ray Installations, Transportable. X-ray equipment to be conveyed by a vehicle or that is readily disassembled for transport by a vehicle.

136. A building used exclusively for the psychiatric care, on a 24-hour basis, of four or more inpatients defines:

- a. Psychiatric Hospital
- b. Reference Grounding Point
- c. Relative Analgesia
- d. Selected Receptacles

137. The ground bus of the panelboard or isolated power system panel supplying the patient care room defines:

- a. Psychiatric Hospital
- b. Reference Grounding Point
- c. Relative Analgesia

d. Selected Receptacles

138. A state of sedation and partial block of pain perception produced in a patient by the inhalation of concentrations of nitrous oxide insufficient to produce loss of consciousness (conscious sedation) defines:

- a. Psychiatric Hospital
- b. Reference Grounding Point
- c. Relative Analgesia
- d. Selected Receptacles

139. A minimum number of receptacles selected by the governing body of a facility as necessary to provide essential patient care and facility services during loss of normal power defines:

- a. Psychiatric Hospital
- b. Reference Grounding Point
- c. Relative Analgesia
- d. Selected Receptacles

140. The area in a patient care space where a procedure is performed that is normally subject to wet conditions while patients are present, including standing fluids on the floor or drenching of the work area, either of which condition is intimate to the patient or staff defines:

- a. Task Illumination
- b. Total Hazard Current
- c. Wet Procedure Location
- d. X-Ray Installations, Long-Time Rating

141. The hazard current of a given isolated system with all devices, including the line isolation monitor, connected defines:

- a. Task Illumination
- b. Total Hazard Current
- c. Wet Procedure Location
- d. X-Ray Installations, Long-Time Rating

142. Provisions for the minimum lighting required to carry out necessary tasks in the described areas, including safe access to supplies and equipment and access to exits defines:

- a. Task Illumination
- b. Total Hazard Current
- c. Wet Procedure Location
- d. X-Ray Installations, Long-Time Rating

143. A rating based on an operating interval of 5 minutes or longer defines:

- a. Task Illumination
- b. Total Hazard Current
- c. Wet Procedure Location
- d. X-Ray Installations, Long-Time Rating

144. X-ray equipment mounted on a permanent base with wheels, casters, or a combination of both to facilitate moving the equipment while completely assembled defines:

- a. X-Ray Installations, Mobile
- b. X-Ray Installations, Momentary Rating
- c. X-Ray Installations, Portable
- d. X-Ray Installations, Transportable

145. A rating based on an operating interval that does not exceed 5 seconds defines:

- a. X-Ray Installations, Mobile
- b. X-Ray Installations, Momentary Rating
- c. X-Ray Installations, Portable
- d. X-Ray Installations, Transportable

146. X-ray equipment designed to be hand carried defines:

- a. X-Ray Installations, Mobile
- b. X-Ray Installations, Momentary Rating
- c. X-Ray Installations, Portable
- d. X-Ray Installations, Transportable

147. X-ray equipment to be conveyed by a vehicle or that is readily disassembled for transport by a vehicle defines:

- a. X-Ray Installations, Mobile
- b. X-Ray Installations, Momentary Rating
- c. X-Ray Installations, Portable
- d. X-Ray Installations, Transportable

520.2 Definitions. Theaters, Audience Areas of Motion Picture and Television Studios, Performance Areas, and Similar Locations.

Adapter. A device used to adapt a circuit from one configuration of an attachment plug or receptacle to another configuration with the same current rating.

Border Light. A permanently installed overhead strip light.

Breakout Assembly. An adapter used to connect a multipole connector containing two or more branch circuits to multiple individual branch-circuit connectors.

Bundled. Cables or conductors that are tied, wrapped, taped, or otherwise periodically bound together.

Connector Strip. A metal wireway containing pendant or flush receptacles.

Drop Box. A box containing pendant- or flush-mounted receptacles attached to a multiconductor cable via strain relief or a multipole connector.

Footlight. A border light installed on or in the stage.

Grouped. Cables or conductors positioned adjacent to one another but not in continuous contact with each other.

Performance Area. The stage and audience seating area associated with a temporary stage structure, whether indoors or outdoors, constructed of scaffolding, truss, platforms, or similar devices, that is used for the presentation of theatrical or musical productions or for public presentations.

Portable Equipment. Equipment fed with portable cords or cables intended to be moved from one place to another.

Portable Power Distribution Unit. A power distribution box containing receptacles and overcurrent devices.

Proscenium. The wall and arch that separates the stage from the auditorium (house).

Solid-State Phase-Control Dimmer. A solid-state dimmer where the wave shape of the steady-state current does not follow the wave shape of the applied voltage, such that the wave shape is nonlinear.

Solid-State Sine Wave Dimmer. A solid-state dimmer where the wave shape of the steady-state current follows the wave shape of the applied voltage such that the wave shape is linear.

Stage Equipment. Equipment at any location on the premises integral to the stage production including, but not limited to, equipment for lighting, audio, special effects, rigging, motion control, projection, or video.

Stage Lighting Hoist. A motorized lifting device that contains a mounting position for one or more luminaires, with wiring devices for connection of luminaires to branch circuits, and integral flexible cables to allow the luminaires to travel over the lifting range of the hoist while energized.

Stage Switchboard. A permanently installed switchboard, panelboard, or rack containing dimmers or relays with associated overcurrent protective devices, or overcurrent protective devices alone, used primarily to feed stage equipment.

Stage Switchboard, Portable. A portable rack or pack containing dimmers or relays with associated overcurrent protective devices, or overcurrent protective devices alone that are used to feed stage equipment.

Stand Lamp (Work Light). A portable stand that contains a general-purpose luminaire or lampholder with guard for the purpose of providing general illumination on the stage or in the auditorium.

Strip Light. A luminaire with multiple lamps arranged in a row.

Two-Fer. An assembly containing one male plug and two female cord connectors used to connect two loads to one branch circuit.

148. Cables or conductors that are tied, wrapped, taped, or otherwise periodically bound together defines:

- a. Adapter
- b. Border Light
- c. Breakout Assembly
- d. Bundled

- e. Connector Strip
149. A device used to adapt a circuit from one configuration of an attachment plug or receptacle to another configuration with the same current rating defines:
- a. Adapter
 - b. Border Light
 - c. Breakout Assembly
 - d. Bundled
 - e. Connector Strip
150. A permanently installed overhead strip light defines:
- a. Adapter
 - b. Border Light
 - c. Breakout Assembly
 - d. Bundled
 - e. Connector Strip
151. An adapter used to connect a multipole connector containing two or more branch circuits to multiple individual branch-circuit connectors defines:
- a. Adapter
 - b. Border Light
 - c. Breakout Assembly
 - d. Bundled
 - e. Connector Strip
152. A metal wireway containing pendant or flush receptacles defines:
- a. Adapter
 - b. Border Light
 - c. Breakout Assembly
 - d. Bundled
 - e. Connector Strip
153. Equipment fed with portable cords or cables intended to be moved from one place to another defines:
- a. Drop Box
 - b. Footlight
 - c. Grouped
 - d. Performance Area
 - e. Portable Equipment
154. Cables or conductors positioned adjacent to one another but not in continuous contact with each other defines:
- a. Drop Box
 - b. Footlight
 - c. Grouped
 - d. Performance Area
 - e. Portable Equipment
155. A border light installed on or in the stage defines:
- a. Drop Box
 - b. Footlight
 - c. Grouped
 - d. Performance Area
 - e. Portable Equipment
156. A box containing pendant- or flush-mounted receptacles attached to a multiconductor cable via strain relief or a multipole connector defines:
- a. Drop Box
 - b. Footlight
 - c. Grouped
 - d. Performance Area
 - e. Portable Equipment

157. The stage and audience seating area associated with a temporary stage structure, whether indoors or outdoors, constructed of scaffolding, truss, platforms, or similar devices, that is used for the presentation of theatrical or musical productions or for public presentations defines:

- a. Drop Box
- b. Footlight
- c. Grouped
- d. Performance Area
- e. Portable Equipment

158. A solid-state dimmer where the wave shape of the steady-state current follows the wave shape of the applied voltage such that the wave shape is linear defines:

- a. Portable Power Distribution Unit
- b. Proscenium
- c. Solid-State Phase-Control Dimmer
- d. Solid-State Sine Wave Dimmer
- e. Stage Equipment

159. Equipment at any location on the premises integral to the stage production including, but not limited to, equipment for lighting, audio, special effects, rigging, motion control, projection, or video defines:

- a. Portable Power Distribution Unit
- b. Proscenium
- c. Solid-State Phase-Control Dimmer
- d. Solid-State Sine Wave Dimmer
- e. Stage Equipment

160. A solid-state dimmer where the wave shape of the steady-state current does not follow the wave shape of the applied voltage, such that the wave shape is nonlinear defines:

- a. Portable Power Distribution Unit
- b. Proscenium
- c. Solid-State Phase-Control Dimmer
- d. Solid-State Sine Wave Dimmer
- e. Stage Equipment

161. The wall and arch that separates the stage from the auditorium (house) defines:

- a. Portable Power Distribution Unit
- b. Proscenium
- c. Solid-State Phase-Control Dimmer
- d. Solid-State Sine Wave Dimmer
- e. Stage Equipment

162. A power distribution box containing receptacles and overcurrent devices defines:

- a. Portable Power Distribution Unit
- b. Proscenium
- c. Solid-State Phase-Control Dimmer
- d. Solid-State Sine Wave Dimmer
- e. Stage Equipment

163. A portable stand that contains a general-purpose luminaire or lampholder with guard for the purpose of providing general illumination on the stage or in the auditorium defines:

- a. Stage Lighting Hoist
- b. Stage Switchboard
- c. Stage Switchboard, Portable
- d. Stand Lamp (Work Light)
- e. Strip Light

164. A permanently installed switchboard, panelboard, or rack containing dimmers or relays with associated overcurrent protective devices, or overcurrent protective devices alone, used primarily to feed stage equipment defines:

- a. Stage Lighting Hoist
- b. Stage Switchboard
- c. Stage Switchboard, Portable

- d. Stand Lamp (Work Light)
 - e. Strip Light
165. A motorized lifting device that contains a mounting position for one or more luminaires, with wiring devices for connection of luminaires to branch circuits, and integral flexible cables to allow the luminaires to travel over the lifting range of the hoist while energized defines:
- a. Stage Lighting Hoist
 - b. Stage Switchboard
 - c. Stage Switchboard, Portable
 - d. Stand Lamp (Work Light)
 - e. Strip Light
166. A luminaire with multiple lamps arranged in a row defines:
- a. Stage Lighting Hoist
 - b. Stage Switchboard
 - c. Stage Switchboard, Portable
 - d. Stand Lamp (Work Light)
 - e. Strip Light
167. A portable rack or pack containing dimmers or relays with associated overcurrent protective devices, or overcurrent protective devices alone that are used to feed stage equipment defines:
- a. Stage Lighting Hoist
 - b. Stage Switchboard
 - c. Stage Switchboard, Portable
 - d. Stand Lamp (Work Light)
 - e. Strip Light
168. Two-Fer. An assembly containing one male plug and two female cord connectors used to _____ loads to one branch circuit.
- a. connect three
 - b. disconnect two
 - c. connect two
 - d. none of the above

522.2 Definitions. Control Systems for Permanent Amusement

Entertainment Device. A mechanical or electromechanical device that provides an entertainment experience.

Permanent Amusement Attraction. Ride devices, entertainment devices, or combination thereof, that are installed so that portability or relocation is impracticable.

Ride Device. A device or combination of devices that carry, convey, or direct a person(s) over or through a fixed or restricted course within a defined area for the primary purpose of amusement or entertainment.

522.5 Voltage Limitations. Control voltage shall be a maximum of 150 volts, nominal, ac to ground or 300 volts dc to ground.

522.7 Maintenance. The conditions of maintenance and supervision shall ensure that only qualified persons service the permanent amusement attraction.

525.2 Definitions. Carnivals, Circuses, Fairs, and Similar Events

Operator. The individual responsible for starting, stopping, and controlling an amusement ride or supervising a concession.

Portable Structures. Units designed to be moved including, but not limited to, amusement rides, attractions, concessions, tents, trailers, trucks, and similar units.

525.3 Other Articles.

(A) Portable Wiring and Equipment. Wherever the requirements of other articles of this *Code* and Article 525 differ, the requirements of Article 525 shall apply to the portable wiring and equipment.

(B) Permanent Structures. Articles 518 and 520 shall apply to wiring in permanent structures.

(C) Audio Signal Processing, Amplification, and Reproduction Equipment. Article 640 shall apply to the wiring and installation of audio signal processing, amplification, and reproduction equipment.

(D) Attractions Utilizing Pools, Fountains, and Similar Installations with Contained Volumes of Water.
This equipment shall be installed to comply with the applicable requirements of Article 680.

169. The conditions of maintenance and supervision shall ensure that only qualified persons service the permanent amusement attraction defines:

- a. Entertainment Device
- b. Permanent Amusement Attraction
- c. Ride Device
- d. 522.5 Voltage Limitations
- e. 522.7 Maintenance

170. Control voltage shall be a maximum of 150 volts, nominal, ac to ground or 300 volts dc to ground defines:

- a. Entertainment Device
- b. Permanent Amusement Attraction
- c. Ride Device
- d. 522.5 Voltage Limitations
- e. 522.7 Maintenance

171. A device or combination of devices that carry, convey, or direct a person(s) over or through a fixed or restricted course within a defined area for the primary purpose of amusement or entertainment defines:

- a. Entertainment Device
- b. Permanent Amusement Attraction
- c. Ride Device
- d. 522.5 Voltage Limitations
- e. 522.7 Maintenance

172. Ride devices, entertainment devices, or combination thereof, that are installed so that portability or relocation is impracticable defines:

- a. Entertainment Device
- b. Permanent Amusement Attraction
- c. Ride Device
- d. 522.5 Voltage Limitations
- e. 522.7 Maintenance

173. A mechanical or electromechanical device that provides an entertainment experience defines:

- a. Entertainment Device
- b. Permanent Amusement Attraction
- c. Ride Device
- d. 522.5 Voltage Limitations
- e. 522.7 Maintenance

174. The individual responsible for starting, stopping, and controlling an amusement ride or supervising a concession defines:

- a. Operator
- b. Portable Structures
- c. Portable Wiring and Equipment
- d. Permanent Structures
- e. Audio Signal Processing, Amplification, and Reproduction Equipment

175. Units designed to be moved including, but not limited to, amusement rides, attractions, concessions, tents, trailers, trucks, and similar units defines:

- a. Operator
- b. Portable Structures
- c. Portable Wiring and Equipment
- d. Permanent Structures
- e. Audio Signal Processing, Amplification, and Reproduction Equipment

176. Wherever the requirements of other articles of this *Code* and Article 525 differ, the requirements of Article 525 shall apply to the portable wiring and equipment defines:

- a. Operator
- b. Portable Structures

- c. Portable Wiring and Equipment
 - d. Permanent Structures
 - e. Audio Signal Processing, Amplification, and Reproduction Equipment
177. Articles 518 and 520 shall apply to wiring in permanent structures defines:
- a. Operator
 - b. Portable Structures
 - c. Portable Wiring and Equipment
 - d. Permanent Structures
 - e. Audio Signal Processing, Amplification, and Reproduction Equipment
178. Article 640 shall apply to the wiring and installation of audio signal processing, amplification, and reproduction equipment defines:
- a. Operator
 - b. Portable Structures
 - c. Portable Wiring and Equipment
 - d. Permanent Structures
 - e. Audio Signal Processing, Amplification, and Reproduction Equipment
179. Attractions Utilizing Pools, Fountains, and Similar Installations with _____ Volumes of Water. This equipment shall be installed to comply with the applicable requirements of Article 680.
- a. uncontained
 - b. covered
 - c. uncovered
 - d. contained
 - e. none of the above

530.2 Definitions. Motion Picture and Television Studios and Similar Locations

Alternating-Current Power Distribution Box (Alternating-Current Plugging Box, Scatter Box). An ac distribution center or box that contains one or more grounding-type polarized receptacles that may contain overcurrent protective devices.

Bull Switch. An externally operated wall-mounted safety switch that may or may not contain overcurrent protection and is designed for the connection of portable cables and cords.

Location (Shooting Location). A place outside a motion picture studio where a production or part of it is filmed or recorded.

Location Board (Deuce Board). Portable equipment containing a lighting contactor or contactors and overcurrent protection designed for remote control of stage lighting.

Motion Picture Studio (Lot). A building or group of buildings and other structures designed, constructed, or permanently altered for use by the entertainment industry for the purpose of motion picture or television production.

Plugging Box. A dc device consisting of one or more 2-pole, 2-wire, nonpolarized, nongrounding-type receptacles intended to be used on dc circuits only.

Portable Equipment. Equipment intended to be moved from one place to another.

Single-Pole Separable Connector. A device that is installed at the ends of portable, flexible, single-conductor cable that is used to establish connection or disconnection between two cables or one cable and a single-pole, panel-mounted separable connector.

Spider (Cable Splicing Block). A device that contains busbars that are insulated from each other for the purpose of splicing or distributing power to portable cables and cords that are terminated with single-pole busbar connectors.

Stage Effect (Special Effect). An electrical or electromechanical piece of equipment used to simulate a distinctive visual or audible effect such as wind machines, lightning simulators, sunset projectors, and the like.

Stage Property. An article or object used as a visual element in a motion picture or television production, except painted backgrounds (scenery) and costumes.

Stage Set. A specific area set up with temporary scenery and properties designed and arranged for a particular scene in a motion picture or television production.

Stand Lamp (Work Light). A portable stand that contains a general-purpose luminaire or lampholder with guard for the purpose of providing general illumination in the studio or stage.

Television Studio or Motion Picture Stage (Sound Stage). A building or portion of a building usually insulated from the outside noise and natural light for use by the entertainment industry for the purpose of motion picture, television, or commercial production.

180. An externally operated wall-mounted safety switch that may or may not contain overcurrent protection and is designed for the connection of portable cables and cords defines:

- a. Alternating-Current Power Distribution Box (Alternating-Current Plugging Box, Scatter Box)
- b. Bull Switch
- c. Location (Shooting Location)
- d. Location Board (Deuce Board)
- e. Motion Picture Studio (Lot)

181. An ac distribution center or box that contains one or more grounding-type polarized receptacles that may contain overcurrent protective devices defines:

- a. Alternating-Current Power Distribution Box (Alternating-Current Plugging Box, Scatter Box)
- b. Bull Switch
- c. Location (Shooting Location)
- d. Location Board (Deuce Board)
- e. Motion Picture Studio (Lot)

182. A place outside a motion picture studio where a production or part of it is filmed or recorded defines:

- a. Alternating-Current Power Distribution Box (Alternating-Current Plugging Box, Scatter Box)
- b. Bull Switch
- c. Location (Shooting Location)
- d. Location Board (Deuce Board)
- e. Motion Picture Studio (Lot)

183. Portable equipment containing a lighting contactor or contactors and overcurrent protection designed for remote control of stage lighting defines:

- a. Alternating-Current Power Distribution Box (Alternating-Current Plugging Box, Scatter Box)
- b. Bull Switch
- c. Location (Shooting Location)
- d. Location Board (Deuce Board)
- e. Motion Picture Studio (Lot)

184. A building or group of buildings and other structures designed, constructed, or permanently altered for use by the entertainment industry for the purpose of motion picture or television production defines:

- a. Alternating-Current Power Distribution Box (Alternating-Current Plugging Box, Scatter Box)
- b. Bull Switch
- c. Location (Shooting Location)
- d. Location Board (Deuce Board)
- e. Motion Picture Studio (Lot)

185. An electrical or electromechanical piece of equipment used to simulate a distinctive visual or audible effect such as wind machines, lightning simulators, sunset projectors, and the like.

Stage Property. An article or object used as a visual element in a motion picture or television production, except painted backgrounds (scenery) and costumes defines:

- a. Plugging Box
- b. Portable Equipment
- c. Single-Pole Separable Connector
- d. Spider (Cable Splicing Block)
- e. Stage Effect (Special Effect)

186. Equipment intended to be moved from one place to another defines:

- a. Plugging Box
- b. Portable Equipment
- c. Single-Pole Separable Connector
- d. Spider (Cable Splicing Block)

- e. Stage Effect (Special Effect)
187. A device that is installed at the ends of portable, flexible, single-conductor cable that is used to establish connection or disconnection between two cables or one cable and a single-pole, panel-mounted separable connector defines:
- a. Plugging Box
 - b. Portable Equipment
 - c. Single-Pole Separable Connector
 - d. Spider (Cable Splicing Block)
 - e. Stage Effect (Special Effect)
188. A device that contains busbars that are insulated from each other for the purpose of splicing or distributing power to portable cables and cords that are terminated with single-pole busbar connectors defines:
- a. Plugging Box
 - b. Portable Equipment
 - c. Single-Pole Separable Connector
 - d. Spider (Cable Splicing Block)
 - e. Stage Effect (Special Effect)
189. A dc device consisting of one or more 2-pole, 2-wire, nonpolarized, nongrounding-type receptacles intended to be used on dc circuits only defines:
- a. Plugging Box
 - b. Portable Equipment
 - c. Single-Pole Separable Connector
 - d. Spider (Cable Splicing Block)
 - e. Stage Effect (Special Effect)
190. An article or object used as a visual element in a motion picture or television production, except painted backgrounds (scenery) and costumes defines:
- a. Stage Property
 - b. Stage Set
 - c. Stand Lamp (Work Light)
 - d. Television Studio or Motion Picture Stage (Sound Stage)
191. A portable stand that contains a general-purpose luminaire or lampholder with guard for the purpose of providing general illumination in the studio or stage defines:
- a. Stage Property
 - b. Stage Set
 - c. Stand Lamp (Work Light)
 - d. Television Studio or Motion Picture Stage (Sound Stage)
192. A building or portion of a building usually insulated from the outside noise and natural light for use by the entertainment industry for the purpose of motion picture, television, or commercial production defines:
- a. Stage Property
 - b. Stage Set
 - c. Stand Lamp (Work Light)
 - d. Television Studio or Motion Picture Stage (Sound Stage)
193. A specific area set up with temporary scenery and properties designed and arranged for a particular scene in a motion picture or television production defines:
- a. Stage Property
 - b. Stage Set
 - c. Stand Lamp (Work Light)
 - d. Television Studio or Motion Picture Stage (Sound Stage)

540.2 Definitions. Motion Picture Projection Rooms

Nonprofessional Projector. Nonprofessional projectors are those types of projectors that do not comply with the definition of *Professional-Type Projector*.

Professional-Type Projector. A type of projector using 35- or 70-mm film that has a minimum width of 35 mm (13/8 in.) and has on each edge 212 perforations per meter (5.4 perforations per inch), or a type using carbon arc, xenon, or other light source equipment that develops hazardous gases, dust, or radiation.

545.2 Definitions. Manufactured Buildings

Building Component. Any subsystem, subassembly, or other system designed for use in or integral with or as part of a structure, which can include structural, electrical, mechanical, plumbing, and fire protection systems, and other systems affecting health and safety.

Building System. Plans, specifications, and documentation for a system of manufactured building or for a type or a system of building components, which can include structural, electrical, mechanical, plumbing, and fire protection systems, and other systems affecting health and safety, and including such variations thereof as are specifically permitted by regulation, and which variations are submitted as part of the building system or amendment thereto.

Closed Construction. Any building, building component, assembly, or system manufactured in such a manner that all concealed parts of processes of manufacture cannot be inspected after installation at the building site without disassembly, damage, or destruction.

Manufactured Building. Any building that is of closed construction and is made or assembled in manufacturing facilities on or off the building site for installation, or for assembly and installation on the building site, other than manufactured homes, mobile homes, park trailers, or recreational vehicles.

194. A type of projector using 35- or 70-mm film that has a minimum width of 35 mm (13/8 in.) and has on each edge 212 perforations per meter (5.4 perforations per inch), or a type using carbon arc, xenon, or other light source equipment that develops hazardous gases, dust, or radiation defines:

- a. Nonprofessional Projector
- b. Professional-Type Projector
- c. Building Component
- d. Building System
- e. Closed Construction

195. Nonprofessional projectors are those types of projectors that do not comply with the definition of *Professional-Type Projector* defines:

- a. Nonprofessional Projector
- b. Professional-Type Projector
- c. Building Component
- d. Building System
- e. Closed Construction

196. Plans, specifications, and documentation for a system of manufactured building or for a type or a system of building components, which can include structural, electrical, mechanical, plumbing, and fire protection systems, and other systems affecting health and safety, and including such variations thereof as are specifically permitted by regulation, and which variations are submitted as part of the building system or amendment thereto defines:

- a. Nonprofessional Projector
- b. Professional-Type Projector
- c. Building Component
- d. Building System
- e. Closed Construction

197. Any building, building component, assembly, or system manufactured in such a manner that all concealed parts of processes of manufacture cannot be inspected after installation at the building site without disassembly, damage, or destruction defines:

- a. Nonprofessional Projector
- b. Professional-Type Projector
- c. Building Component
- d. Building System
- e. Closed Construction

198. Any subsystem, subassembly, or other system designed for use in or integral with or as part of a structure, which can include structural, electrical, mechanical, plumbing, and fire protection systems, and other systems affecting health and safety defines:

- a. Nonprofessional Projector
- b. Professional-Type Projector
- c. Building Component
- d. Building System
- e. Closed Construction

199. **Manufactured Building.** Any building that is of closed construction and is made or assembled in manufacturing facilities on or off the building site for installation, or for assembly and installation on the building site, other than _____.

- a. manufactured homes
- b. mobile homes
- c. park trailers
- d. recreational vehicles
- e. all of the above

547.2 Definitions. Agricultural Buildings

Distribution Point. An electrical supply point from which service drops, service conductors, feeders, or branch circuits to buildings or structures utilized under single management are supplied.

Equipotential Plane. An area where wire mesh or other conductive elements are embedded in or placed under concrete, bonded to all metal structures and fixed nonelectrical equipment that may become energized, and connected to the electrical grounding system to minimize voltage differences within the plane and between the planes, the grounded equipment, and the earth.

Site-Isolating Device. A disconnecting means installed at the distribution point for the purposes of isolation, system maintenance, emergency

550.2 Definitions. Mobile Homes, Manufactured Homes, and Mobile Home Parks

Appliance, Fixed. An appliance that is fastened or otherwise secured at a specific location.

Appliance, Portable. An appliance that is actually moved or can easily be moved from one place to another in normal use.

Feeder Assembly. The overhead or under-chassis feeder conductors, including the grounding conductor, together with the necessary fittings and equipment or a power-supply cord listed for mobile home use, identified for the delivery of energy from the source of electrical supply to the panelboard within the mobile home.

Laundry Area. An area containing or designed to contain a laundry tray, clothes washer, or a clothes dryer.

Manufactured Home. A structure, transportable in one or more sections, which in the traveling mode is 2.4 m (8 ft) or more in width or 12.2 m (40 ft) or more in length, or when erected on site is 29.77 m² (320 ft²) or more is built on a permanent chassis and is designed to be used as a dwelling with or without a permanent foundation, whether or not connected to the utilities, and includes plumbing, heating, air conditioning, and electrical systems contained therein. The term *manufactured home* includes any structure that meets all the requirements of this paragraph except the size requirements and with respect to which the manufacturer voluntarily files a certification required by the regulatory agency. Calculations used to determine the number of square meters (square feet) in a structure are based on the structure's exterior dimensions and include all expandable rooms, cabinets, and other projections containing interior space, but do not include bay windows. For the purpose of this *Code* and unless otherwise indicated, the term *mobile home* includes manufactured homes and excludes park trailers defined in Article 552.4.

Mobile Home. A factory-assembled structure or structures transportable in one or more sections that are built on a permanent chassis and designed to be used as a dwelling without a permanent foundation where connected to the required utilities and that include the plumbing, heating, air conditioning, and electrical systems contained therein. For the purpose of this *Code* and unless otherwise indicated, the term *mobile home* includes manufactured homes.

Mobile Home Accessory Building or Structure. Any awning, cabana, ramada, storage cabinet, carport, fence, windbreak, or porch established for the use of the occupant of the mobile home on a mobile home lot.

Mobile Home Lot. A designated portion of a mobile home park designed for the accommodation of one mobile home and its accessory buildings or structures for the exclusive use of its occupants.

Mobile Home Park. A contiguous parcel of land that is used for the accommodation of occupied mobile homes.

Mobile Home Service Equipment. The equipment containing the disconnecting means, overcurrent protective devices, and receptacles or other means for connecting a mobile home feeder assembly.

Park Electrical Wiring Systems. All of the electrical wiring, luminaires, equipment, and appurtenances related to electrical installations within a mobile home park, including the mobile home service equipment.

200. The term *manufactured home* includes any structure that meets all the requirements of this paragraph except the size requirements and with respect to which the manufacturer voluntarily files a certification required by the regulatory agency. Calculations used to determine the number of square meters (square feet) in a structure are based on the structure's exterior dimensions and include all _____ containing interior space, but do not include bay windows.

- a. expandable rooms
- b. cabinets
- c. other projections
- d. all of the above

201. Manufactured Home. For the purpose of this *Code* and unless otherwise indicated, the term _____ includes manufactured homes.

- a. mobile home
- b. park models
- c. park trailer
- d. all of the above

202. Manufactured Home. A structure, transportable in one or more sections, which in the traveling mode is 2.4 m (8 ft) or more in width or 12.2 m (40 ft) or more in length, or when erected on site is 29.77 m² (320 ft²) or more is built on a permanent _____.

- a. chassis
- b. framework
- c. skeleton
- d. none of the above

203. Manufactured Home. Designed to be used as a dwelling _____ foundation, whether or not connected to the utilities, and includes plumbing, heating, air conditioning, and electrical systems contained therein.

- a. with
- b. without a permanent
- c. both a or b
- d. none of the above

204. Mobile Home. A factory-assembled structure or structures transportable in one or more sections that are built on a permanent chassis and designed to be used as a dwelling _____ a permanent foundation where connected to the required utilities and that include the plumbing, heating, air conditioning, and electrical systems contained therein. For the purpose of this *Code* and unless otherwise indicated, the term *mobile home* includes manufactured homes.

- a. without
- b. with
- c. both a or b
- d. none of the above

205. Mobile Home Lot. A designated portion of a mobile home park designed for the accommodation of one mobile home and its accessory buildings or structures for the exclusive use of its occupants defines:

- a. Mobile Home Lot
- b. Park Electrical Wiring Systems
- c. Mobile Home Service Equipment
- d. Mobile Home Park
- e. Mobile Home Accessory Building or Structure

206. Mobile Home Park. A contiguous parcel of land that is used for the accommodation of occupied mobile homes defines:

- a. Mobile Home Lot
- b. Park Electrical Wiring Systems
- c. Mobile Home Service Equipment
- d. Mobile Home Park
- e. Mobile Home Accessory Building or Structure

207. Mobile Home Service Equipment. The equipment containing the disconnecting means, overcurrent protective devices, and receptacles or other means for connecting a mobile home feeder assembly defines:

- a. Mobile Home Lot
- b. Park Electrical Wiring Systems
- c. Mobile Home Service Equipment
- d. Mobile Home Park
- e. Mobile Home Accessory Building or Structure

208. Park Electrical Wiring Systems. All of the electrical wiring, luminaires, equipment, and appurtenances related to electrical installations within a mobile home park, including the mobile home service equipment defines:

- a. Mobile Home Lot
- b. Park Electrical Wiring Systems
- c. Mobile Home Service Equipment
- d. Mobile Home Park
- e. Mobile Home Accessory Building or Structure

209. Mobile Home Accessory Building or Structure. Any awning, cabana, ramada, storage cabinet, carport, fence, windbreak, or porch established for the use of the occupant of the mobile home on a mobile home lot defines:

- a. Mobile Home Lot
- b. Park Electrical Wiring Systems
- c. Mobile Home Service Equipment
- d. Mobile Home Park
- e. Mobile Home Accessory Building or Structure

210. Distribution Point. An electrical supply point from which service drops, service conductors, feeders, or branch circuits to buildings or structures utilized under single management are supplied defines:

- a. Equipotential Plane
- b. Site-Isolating Device
- c. Distribution Point
- d. Site-Isolating Device
- e. Distribution Point

211. Equipotential Plane. An area where wire mesh or other conductive elements are embedded in or placed under concrete, bonded to all metal structures and fixed nonelectrical equipment that may become energized, and connected to the electrical grounding system to minimize voltage differences within the plane and between the planes, the grounded equipment, and the earth defines:

- a. Equipotential Plane
- b. Site-Isolating Device
- c. Distribution Point
- d. Site-Isolating Device
- e. Distribution Point

212. Site-Isolating Device. A disconnecting means installed at the distribution point for the purposes of isolation, system maintenance, emergency defines:

- a. Equipotential Plane
- b. Site-Isolating Device
- c. Distribution Point
- d. Site-Isolating Device
- e. Distribution Point

213. Distribution Point. An electrical supply point from which service drops, service conductors, feeders, or branch circuits to buildings or structures utilized under single management are supplied defines:

- a. Equipotential Plane

- b. Site-Isolating Device
- c. Distribution Point
- d. Site-Isolating Device
- e. Distribution Point

214. Site-Isolating Device. A disconnecting means installed at the distribution point for the purposes of isolation, system maintenance, emergency defines:

- a. Equipotential Plane
- b. Site-Isolating Device
- c. Distribution Point
- d. Site-Isolating Device
- e. Distribution Point

551.2 Definitions. Recreational Vehicles and Recreational Vehicle Parks

Air-Conditioning or Comfort-Cooling Equipment. All of that equipment intended or installed for the purpose of processing the treatment of air so as to control simultaneously or individually its temperature, humidity, cleanliness, and distribution to meet the requirements of the conditioned space.

Appliance, Fixed. An appliance that is fastened or otherwise secured at a specific location.

Camping Trailer. A vehicular portable unit mounted on wheels and constructed with collapsible partial side walls that fold for towing by another vehicle and unfold at the campsite to provide temporary living quarters for recreational, camping, or travel use. (*See Recreational Vehicle.*)

Converter. A device that changes electrical energy from one form to another, as from alternating current to direct current.

Dead Front (as applied to switches, circuit breakers, switchboards, and panelboards). Designed, constructed, and installed so that no current-carrying parts are normally exposed on the front.

Disconnecting Means. The necessary equipment usually consisting of a circuit breaker or switch and fuses, and their accessories, located near the point of entrance of supply conductors in a recreational vehicle and intended to constitute the means of cutoff for the supply to that recreational vehicle.

Frame. Chassis rail and any welded addition thereto of metal thickness of 1.35 mm (0.053 in.) or greater.

Low Voltage. An electromotive force rated 24 volts, nominal, or less.

Motor Home. A vehicular unit designed to provide temporary living quarters for recreational, camping, or travel use built on or permanently attached to a self-propelled motor vehicle chassis or on a chassis cab or van that is an integral part of the completed vehicle. (*See Recreational Vehicle.*)

Power-Supply Assembly. The conductors, including ungrounded, grounded, and equipment grounding conductors, the connectors, attachment plug caps, and all other fittings, grommets, or devices installed for the purpose of delivering energy from the source of electrical supply to the distribution panel within the recreational vehicle.

Recreational Vehicle. A vehicular-type unit primarily designed as temporary living quarters for recreational, camping, or travel use, which either has its own motive power or is mounted on or drawn by another vehicle.

Recreational Vehicle Park. Any parcel or tract of land under the control of any person, organization, or governmental entity wherein two or more recreational vehicle, recreational park trailer, and/or other camping sites are offered for use by the public or members of an organization for overnight stays.

Recreational Vehicle Site. A specific area within a recreational vehicle park or campground that is set aside for use by a camping unit.

Recreational Vehicle Site Feeder Circuit Conductors. The conductors from the park service equipment to the recreational vehicle site supply equipment.

Recreational Vehicle Site Supply Equipment. The necessary equipment, usually a power outlet, consisting of a circuit breaker or switch and fuse and their accessories, located near the point of entrance of supply conductors to a recreational vehicle site and intended to constitute the disconnecting means for the supply to that site.

Recreational Vehicle Stand. That area of a recreational vehicle site intended for the placement of a recreational vehicle.

Travel Trailer. A vehicular unit, mounted on wheels, designed to provide temporary living quarters for recreational, camping, or travel use, of such size or weight as not to require special highway movement permits when towed by a motorized vehicle, and of gross trailer area less than 30 m² (320 ft²). (*See Recreational Vehicle.*)

Truck Camper. A portable unit constructed to provide temporary living quarters for recreational, travel, or camping use, consisting of a roof, floor, and sides, designed to be loaded onto and unloaded from the bed of a pickup truck. (*See Recreational Vehicle.*)

215. The conductors, including ungrounded, grounded, and equipment grounding conductors, the connectors, attachment plug caps, and all other fittings, grommets, or devices installed for the purpose of delivering energy from the source of electrical supply to the distribution panel within the recreational vehicle defines:

- a. Recreational Vehicle Site Feeder Circuit Conductors
- b. Recreational Vehicle Park
- c. Recreational Vehicle Site
- d. Recreational Vehicle
- e. Power-Supply Assembly

216. A vehicular-type unit primarily designed as temporary living quarters for recreational, camping, or travel use, which either has its own motive power or is mounted on or drawn by another vehicle defines:

- a. Recreational Vehicle Site Feeder Circuit Conductors
- b. Recreational Vehicle Park
- c. Recreational Vehicle Site
- d. Recreational Vehicle
- e. Power-Supply Assembly

217. Any parcel or tract of land under the control of any person, organization, or governmental entity wherein two or more recreational vehicle, recreational park trailer, and/or other camping sites are offered for use by the public or members of an organization for overnight stays defines:

- a. Recreational Vehicle Site Feeder Circuit Conductors
- b. Recreational Vehicle Park
- c. Recreational Vehicle Site
- d. Recreational Vehicle
- e. Power-Supply Assembly

218. A specific area within a recreational vehicle park or campground that is set aside for use by a camping unit defines:

- a. Recreational Vehicle Site Feeder Circuit Conductors
- b. Recreational Vehicle Park
- c. Recreational Vehicle Site
- d. Recreational Vehicle
- e. Power-Supply Assembly

219. The conductors from the park service equipment to the recreational vehicle site supply equipment defines:

- a. Recreational Vehicle Site Feeder Circuit Conductors
- b. Recreational Vehicle Park
- c. Recreational Vehicle Site
- d. Recreational Vehicle
- e. Power-Supply Assembly

220. Designed, constructed, and installed so that no current-carrying parts are normally exposed on the front defines:

- a. Disconnecting Means
- b. Frame
- c. Low Voltage
- d. Motor Home
- e. Dead Front

221. The necessary equipment usually consisting of a circuit breaker or switch and fuses, and their accessories, located near the point of entrance of supply conductors in a recreational vehicle and intended to constitute the means of cutoff for the supply to that recreational vehicle defines:

- a. Disconnecting Means
 - b. Frame
 - c. Low Voltage
 - d. Motor Home
 - e. Dead Front
222. Chassis rail and any welded addition thereto of metal thickness of 1.35 mm (0.053 in.) or greater defines:
- a. Disconnecting Means
 - b. Frame
 - c. Low Voltage
 - d. Motor Home
 - e. Dead Front
223. An electromotive force rated 24 volts, nominal, or less defines:
- a. Disconnecting Means
 - b. Frame
 - c. Low Voltage
 - d. Motor Home
 - e. Dead Front
224. A vehicular unit designed to provide temporary living quarters for recreational, camping, or travel use built on or permanently attached to a self-propelled motor vehicle chassis or on a chassis cab or van that is an integral part of the completed vehicle. (*See Recreational Vehicle.*) defines:
- a. Disconnecting Means
 - b. Frame
 - c. Low Voltage
 - d. Motor Home
 - e. Dead Front
225. All of that equipment intended or installed for the purpose of processing the treatment of air so as to control simultaneously or individually its temperature, humidity, cleanliness, and distribution to meet the requirements of the conditioned space defines:
- a. Converter
 - b. Camping Trailer
 - c. Appliance, Fixed
 - d. Air-Conditioning or Comfort-Cooling Equipment
226. An appliance that is fastened or otherwise secured at a specific location defines:
- a. Converter
 - b. Camping Trailer
 - c. Appliance, Fixed
 - d. Air-Conditioning or Comfort-Cooling Equipment
227. A vehicular portable unit mounted on wheels and constructed with collapsible partial side walls that fold for towing by another vehicle and unfold at the campsite to provide temporary living quarters for recreational, camping, or travel use. (*See Recreational Vehicle.*) defines:
- a. Converter
 - b. Camping Trailer
 - c. Appliance, Fixed
 - d. Air-Conditioning or Comfort-Cooling Equipment
228. A device that changes electrical energy from one form to another, as from alternating current to direct current defines:
- a. Converter
 - b. Camping Trailer
 - c. Appliance, Fixed
 - d. Air-Conditioning or Comfort-Cooling Equipment
229. The necessary equipment, usually a power outlet, consisting of a circuit breaker or switch and fuse and their accessories, located near the point of entrance of supply conductors to a recreational vehicle site and intended to constitute the disconnecting means for the supply to that site defines:
- a. Recreational Vehicle Site Supply Equipment

- b. Travel Trailer
- c. Truck Camper
- d. Recreational Vehicle Stand

230. That area of a recreational vehicle site intended for the placement of a recreational vehicle defines:

- a. Recreational Vehicle Site Supply Equipment
- b. Travel Trailer
- c. Truck Camper
- d. Recreational Vehicle Stand

231. A vehicular unit, mounted on wheels, designed to provide temporary living quarters for recreational, camping, or travel use, of such size or weight as not to require special highway movement permits when towed by a motorized vehicle, and of gross trailer area less than 30 m² (320 ft²). (*See Recreational Vehicle.*) defines:

- a. Recreational Vehicle Site Supply Equipment
- b. Travel Trailer
- c. Truck Camper
- d. Recreational Vehicle Stand

232. A portable unit constructed to provide temporary living quarters for recreational, travel, or camping use, consisting of a roof, floor, and sides, designed to be loaded onto and unloaded from the bed of a pickup truck. (*See Recreational Vehicle.*) defines:

- a. Recreational Vehicle Site Supply Equipment
- b. Travel Trailer
- c. Truck Camper
- d. Recreational Vehicle Stand

552.2 Definition. Park Trailers

Park Trailer. A unit that is built on a single chassis mounted on wheels and has a gross trailer area not exceeding 37 m² (400 ft²) in the set-up mode.

555.2 Definitions. Marinas, Boatyards, and Commercial and Noncommercial Docking Facilities

Electrical Datum Plane. The electrical datum plane is defined as follows:

- (1) In land areas subject to tidal fluctuation, the electrical datum plane is a horizontal plane 606 mm (2 ft) above the highest tide level for the area occurring under normal circumstances, that is, highest high tide.
- (2) In land areas not subject to tidal fluctuation, the electrical datum plane is a horizontal plane 606 mm (2 ft) above the highest water level for the area occurring under normal circumstances.
- (3) The electrical datum plane for floating piers and landing stages that are (a) installed to permit rise and fall response to water level, without lateral movement, and (b) that are so equipped that they can rise to the datum plane established for (1) or (2), is a horizontal plane 762 mm (30 in.) above the water level at the floating pier or landing stage and a minimum of 305 mm (12 in.) above the level of the deck.

Marine Power Outlet. An enclosed assembly that can include equipment such as receptacles, circuit breakers, fused switches, fuses, a watt-hour meter(s), panelboards, and monitoring means approved for marine use.

600.2 Definitions. Electric Signs and Outline Lighting

LED Sign Illumination System. A complete lighting system for use in signs and outline lighting consisting of light-emitting diode (LED) light sources, power supplies, wire, and connectors to complete the installation.

Neon Tubing. Electric-discharge luminous tubing, including cold cathode luminous tubing, that is manufactured into shapes to illuminate signs, form letters, parts of letters, skeleton tubing, outline lighting, other decorative elements, or art forms and filled with various inert gases.

Photovoltaic (PV) Powered Sign. A complete sign powered by solar energy consisting of all components and subassemblies for installation either as an off-grid stand-alone, on-grid interactive, or non-grid interactive system.

Section Sign. A sign or outline lighting system, shipped as subassemblies, that requires field-installed wiring between the subassemblies to complete the overall sign. The subassemblies are either physically joined to form a single sign unit or are installed as separate remote parts of an overall sign.

Sign Body. A portion of a sign that may provide protection from the weather but is not an electrical enclosure.

Skeleton Tubing. Neon tubing that is itself the sign or outline lighting and is not attached to an enclosure or sign body.

233. Electrical Datum Plane. The electrical datum plane is defined as follows:

- a. In land areas subject to tidal fluctuation, the electrical datum plane is a horizontal plane 606 mm (2 ft) above the lowest tide level for the area occurring under normal circumstances, that is, highest high tide.
- b. In land areas not subject to tidal fluctuation, the electrical datum plane is a horizontal plane 606 mm (2 ft) above the lowest water level for the area occurring under normal circumstances.
- c. both a & b
- d. none of the above

234. Electrical Datum Plane. The electrical datum plane is defined as follows: The electrical datum plane for floating piers and landing stages that are:

- a. installed to permit rise and fall response to water level, without lateral movement
- b. that are so equipped that they can rise to the datum plane established for (1) or (2), is a horizontal plane 762 mm (30 in.) above the water level at the floating pier or landing stage and a minimum of 305 mm (12 in.) above the level of the deck.
- c. both a & b
- d. none of the above

235. A complete sign powered by solar energy consisting of all components and subassemblies for installation either as an off-grid stand-alone, on-grid interactive, or non-grid interactive system defines:

- a. Photovoltaic (PV) Powered Sign
- b. Section Sign
- c. Sign Body
- d. Skeleton Tubing

236. A sign or outline lighting system, shipped as subassemblies, that requires field-installed wiring between the subassemblies to complete the overall sign. The subassemblies are either physically joined to form a single sign unit or are installed as separate remote parts of an overall sign defines:

- a. Photovoltaic (PV) Powered Sign
- b. Section Sign
- c. Sign Body
- d. Skeleton Tubing

237. A portion of a sign that may provide protection from the weather but is not an electrical enclosure defines:

- a. Photovoltaic (PV) Powered Sign
- b. Section Sign
- c. Sign Body
- d. Skeleton Tubing

238. Neon tubing that is itself the sign or outline lighting and is not attached to an enclosure or sign body defines:

- a. Photovoltaic (PV) Powered Sign
- b. Section Sign
- c. Sign Body
- d. Skeleton Tubing

239. A complete lighting system for use in signs and outline lighting consisting of light-emitting diode (LED) light sources, power supplies, wire, and connectors to complete the installation defines:

- a. Neon Tubing
- b. Marine Power Outlet
- c. Park Trailer
- d. LED Sign Illumination System

240. Electric-discharge luminous tubing, including cold cathode luminous tubing, that is manufactured into shapes to illuminate signs, form letters, parts of letters, skeleton tubing, outline lighting, other decorative elements, or art forms and filled with various inert gases defines:

- a. Neon Tubing
- b. Marine Power Outlet

- c. Park Trailer
- d. LED Sign Illumination System

2017 NEC Article's Definition Quiz Part 1 Answer Sheet

1	a b c d e	41	a b c d e	81	a b c d e
2	a b c d e	42	a b c d e	82	a b c d e
3	a b c d e	43	a b c d e	83	a b c d e
4	a b c d e	44	a b c d e	84	a b c d e
5	a b c d e	45	a b c d e	85	a b c d e
6	a b c d e	46	a b c d e	86	a b c d e
7	a b c d e	47	a b c d e	87	a b c d e
8	a b c d e	48	a b c d e	88	a b c d e
9	a b c d e	49	a b c d e	89	a b c d e
10	a b c d e	50	a b c d e	90	a b c d e
11	a b c d e	51	a b c d e	91	a b c d e
12	a b c d e	52	a b c d e	92	a b c d e
13	a b c d e	53	a b c d e	93	a b c d e
14	a b c d e	54	a b c d e	94	a b c d e
15	a b c d e	55	a b c d e	95	a b c d e
16	a b c d e	56	a b c d e	96	a b c d e
17	a b c d e	57	a b c d e	97	a b c d e
18	a b c d e	58	a b c d e	98	a b c d e
19	a b c d e	59	a b c d e	99	a b c d e
20	a b c d e	60	a b c d e	100	a b c d e
21	a b c d e	61	a b c d e	101	a b c d e
22	a b c d e	62	a b c d e	102	a b c d e
23	a b c d e	63	a b c d e	103	a b c d e
24	a b c d e	64	a b c d e	104	a b c d e
25	a b c d e	65	a b c d e	105	a b c d e
26	a b c d e	66	a b c d e	106	a b c d e
27	a b c d e	67	a b c d e	107	a b c d e
28	a b c d e	68	a b c d e	108	a b c d e
29	a b c d e	69	a b c d e	109	a b c d e
30	a b c d e	70	a b c d e	110	a b c d e
31	a b c d e	71	a b c d e	111	a b c d e
32	a b c d e	72	a b c d e	112	a b c d e
33	a b c d e	73	a b c d e	113	a b c d e
34	a b c d e	74	a b c d e	114	a b c d e
35	a b c d e	75	a b c d e	115	a b c d e
36	a b c d e	76	a b c d e	116	a b c d e
37	a b c d e	77	a b c d e	117	a b c d e
38	a b c d e	78	a b c d e	118	a b c d e
39	a b c d e	79	a b c d e	119	a b c d e
40	a b c d e	80	a b c d e	120	a b c d e

2017 NEC Article's Definition Quiz Part 1 Answer Sheet Continued

121	a b c d e	161	a b c d e	201	a b c d e
122	a b c d e	162	a b c d e	202	a b c d e
123	a b c d e	163	a b c d e	203	a b c d e
124	a b c d e	164	a b c d e	204	a b c d e
125	a b c d e	165	a b c d e	205	a b c d e
126	a b c d e	166	a b c d e	206	a b c d e
127	a b c d e	167	a b c d e	207	a b c d e
128	a b c d e	168	a b c d e	208	a b c d e
129	a b c d e	169	a b c d e	209	a b c d e
130	a b c d e	170	a b c d e	210	a b c d e
131	a b c d e	171	a b c d e	211	a b c d e
132	a b c d e	172	a b c d e	212	a b c d e
133	a b c d e	173	a b c d e	213	a b c d e
134	a b c d e	174	a b c d e	214	a b c d e
135	a b c d e	175	a b c d e	215	a b c d e
136	a b c d e	176	a b c d e	216	a b c d e
137	a b c d e	177	a b c d e	217	a b c d e
138	a b c d e	178	a b c d e	218	a b c d e
139	a b c d e	179	a b c d e	219	a b c d e
140	a b c d e	180	a b c d e	220	a b c d e
141	a b c d e	181	a b c d e	221	a b c d e
142	a b c d e	182	a b c d e	222	a b c d e
143	a b c d e	183	a b c d e	223	a b c d e
144	a b c d e	184	a b c d e	224	a b c d e
145	a b c d e	185	a b c d e	225	a b c d e
146	a b c d e	186	a b c d e	226	a b c d e
147	a b c d e	187	a b c d e	227	a b c d e
148	a b c d e	188	a b c d e	228	a b c d e
149	a b c d e	189	a b c d e	229	a b c d e
150	a b c d e	190	a b c d e	230	a b c d e
151	a b c d e	191	a b c d e	231	a b c d e
152	a b c d e	192	a b c d e	232	a b c d e
153	a b c d e	193	a b c d e	233	a b c d e
154	a b c d e	194	a b c d e	234	a b c d e
155	a b c d e	195	a b c d e	235	a b c d e
156	a b c d e	196	a b c d e	236	a b c d e
157	a b c d e	197	a b c d e	237	a b c d e
158	a b c d e	198	a b c d e	238	a b c d e
159	a b c d e	199	a b c d e	239	a b c d e
160	a b c d e	200	a b c d e	240	a b c d e

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