

Montana Electrical License # \_\_\_\_\_

Other State License # \_\_\_\_\_

Name \_\_\_\_\_

Home Address \_\_\_\_\_

Home Phone # \_\_\_\_\_ Social Security # \_\_\_\_\_

Mailing Address \_\_\_\_\_

## CONTINUING ELECTRICAL UPDATE

901 Charlo, Missoula, MT 59802

Phone: (406) 542-7340 \* Fax: (406) 543-3182

2011 National Electrical Code Change Course # \_\_\_\_\_

Chapter 5 – 9

<u>Q#</u>	<u>Pg#</u>	<u>NEC</u>
1-2	367	<b>Combustible Dust.</b> Any finely divided solid material that is _____ or smaller in diameter and presents a fire or _____ hazard when dispersed and ignited in air.
3-5	372	NEC 500.6 <b>Material Groups.</b> (B)(2) Note: Testing of specific dust samples, following established _____ testing procedures, is a method used to identify the _____ of specific dust and the need to classify those locations containing that material as _____.
6	373	NEC 500.7 <b>Protection Techniques.</b> (K) Note No. 3: For further information, see ANSI/ISA-60079-29-2, <i>Explosive Atmospheres – Part 29-2: Gas detectors – Selection, installation, use and maintenance of detectors for flammable</i> _____.
7	373	NEC 500.8 <b>Equipment.</b> (A)(3) Note: Additional documentation...Guidelines for certificates may be found in ANSI/ISA _____, <i>Certificate Standard for AEx Equipment for Hazardous Locations.</i>
8-9	374	(C)(5) Electrical equipment designed for use in the ambient temperature range between _____ shall require no _____ temperature making.
10	375	(E)(1) ...All NPT treaded conduit and fittings shall be threaded with a _____ thread.

- 11-12 375 NPT threaded entries into explosionproof equipment shall be made up with at least \_\_\_\_\_ threads fully \_\_\_\_\_.
- 13 375 (E)(2) For equipment with metric threaded entries, \_\_\_\_\_ conduit fittings or listed cable fittings shall be used.
- 14-18 375 Metric threaded entries into explosionproof equipment shall have a class of fit of at least 6g/6H and shall be made up with at least \_\_\_\_\_ threads fully engaged for \_\_\_\_\_ and Group D, and at least \_\_\_\_\_ fully engaged for Group \_\_\_\_\_ and Group \_\_\_\_\_.
- 19-20 375 Note: ... *Principles and basic data, and ISO \_\_\_\_\_-1998, ISO general purpose metric screw threads – Tolerances – \_\_\_\_\_: Deviations for constructional screw threads.*
- 21 375 (E)(3) All unused opening shall be closed with listed metal \_\_\_\_\_ plugs.
- 22 375 The plug engagement shall comply with \_\_\_\_\_(E)(1) or (E)(2).
- 23 376 NEC 501.10  
**Wiring Methods.** (A)(1)(c) ... Type MC-HL cable shall be installed in accordance with the provisions of \_\_\_\_\_, Part II.
- 24 380 NEC 501.17  
**Process Sealing.** This section shall apply to process-connected equipment, which includes, but is not limited to, canned pumps, \_\_\_\_\_, flow, pressure, temperature, or analysis measurement instruments.
- 25-26 380 A process seal is a device to prevent the \_\_\_\_\_ of process fluids from the designed containment into the \_\_\_\_\_ electrical system.
- 27 380 Process connected ... be provided with an \_\_\_\_\_ means to mitigate a single process seal failure.
- 28 380 (1) A suitable barrier... There shall be a \_\_\_\_\_ between the single process seal and the suitable barrier.
- 29 380 Indication of the single process seal failure shall be provided by visible leakage, an audible \_\_\_\_\_, or other means of monitoring.
- 30-31 380 (2) A listed Type MI cable assembly, rated at not less than \_\_\_\_\_ of the process pressure and not less than \_\_\_\_\_ of the maximum process temperature, installed between the cable or conduit and the single process seal.

- 32 380 (3) A drain or vent located between the single process seal... conduit or cable seal above \_\_\_\_\_ water column.
- 33 380 Indication of the single process seal failure shall be provided by visible leakage, an audible \_\_\_\_\_, or other means of monitoring.
- 34 380 Process-connected electrical equipment that does not rely on a single process seal or is listed and marked “\_\_\_\_\_” or “dual seal” shall not be required to be provided with an additional means of sealing.
- 35 381 NEC 501.30  
**Grounding and Bonding, Class I, Divisions 1 and 2.** (B) Flexible metal conduit and liquid tight flexible metal conduit shall include an equipment \_\_\_\_\_ jumper of the wire type in compliance with 250.102.
- 36 386 NEC 502.6  
**Zone Equipment.** Equipment listed and marked in accordance with 506.9(C)(2) for Zone 20 locations shall be permitted in Class II, \_\_\_\_\_ locations for the same dust atmosphere; and with a suitable temperature class.
- 37 386 Equipment listed and marked in accordance with 506.9(C)(2) for Zone 20, 21, or 22 locations shall be permitted in Class II, \_\_\_\_\_ locations for the same dust atmosphere and with a suitable temperature class.
- 38-39 387 NEC 502.10  
**Wiring Methods.** (B)(1)(7) In industrial establishments with \_\_\_\_\_ public access where the conditions of maintenance and supervision ensure that only qualified persons ... fittings, all marked with suffix -\_\_\_\_\_, and Schedule 80 PVC conduit, factory elbows and associated fittings shall be permitted.
- 40-41 387 NEC 502.30  
**Grounding and Bonding, Class II, Divisions 1 and 2.** (B) Liquid-tight flexible metal conduit shall include an \_\_\_\_\_ bonding jumper of the \_\_\_\_\_ type in compliance with 250.102.
- 42-43 388 NEC 502.100  
**Transformers and Capacitors.** (A)(3) No transformer or capacitor shall be installed in a \_\_\_\_\_, Division 1, \_\_\_\_\_ location.
- 44 388 NEC 502.115  
**Switches, Circuit Breakers, Motor Controllers, and Fuses.** (A) In Class II, Division 1 locations, switches, circuit breakers, motor controllers, fuses, push buttons, relays, and similar devices shall be provided with enclosures \_\_\_\_\_ for the location.

- 45 388 NEC 502.120  
**Control Transformers and Resistors.** (A) In Class II, Division 1 locations, control transformers, solenoids, impedance coils, resistors, and any overcurrent devices or switching mechanisms associated with them shall be provided with enclosures \_\_\_\_\_ for the location.
- 46 388 (B)(1) Switching mechanisms...shall be provided with enclosures that are \_\_\_\_\_ or otherwise identified for the location.
- 47 388 (B)(2) Where not located in the same...enclosures that are \_\_\_\_\_ or otherwise identified for the location.
- 48 389 (B)(3) Resistors and resistance devices shall have dust-ignitionproof enclosures that are \_\_\_\_\_ or otherwise identified for the location.
- 49 390 NEC 502.140  
**Flexible Cords – Class II, Divisions 1 and 2.** (4) In \_\_\_\_\_ locations, the cord shall be terminated with a cord connector...
- 50 390 In Division 2 locations, the cord shall be terminated with a listed \_\_\_\_\_ cord connector.
- 51-54 391 NEC 503.\_\_\_\_\_  
**Zone Equipment.** Equipment listed and marked in accordance with 506.9(C)(2) for \_\_\_\_\_ locations and with a temperature class of not greater than \_\_\_\_\_ or not greater than \_\_\_\_\_ shall be permitted in Class III, Division 1 locations.
- 55-56 391 Equipment listed and marked in accordance with 506.9(C)(2) Zone 20, 21, or 22 locations and with a temperature class of not greater than \_\_\_\_\_ or not greater than \_\_\_\_\_ shall be permitted in Class III, Division 2 locations.
- 57 391 NEC 503.10  
**Wiring Methods.** (A)(1) In \_\_\_\_\_, Division 1 locations, the wiring method shall be in accordance with (1) through (4).
- 58 391 (A)(1) \_\_\_\_\_, Type PVC conduit, Type RTRC conduit, intermediate metal conduit, electrical metallic tubing, dusttight wireways, or Type MC or MI cable with listed termination fittings.
- 59 391 (A)(2) \_\_\_\_\_ and Type PLTC-ER cable in accordance with the provisions of Article 725 including installation in cable tray systems.
- 60 391 (A)(3) \_\_\_\_\_ and Type ITC-ER cable as permitted in 727.4 and terminated with listed fittings.

- 61-63 391 (A)(4) Type \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_ cable installed in ladder, ventilated trough, or ventilated channel cable trays in a single layer...
- 64-65 392 (A)(3)(4) Interlocked armor \_\_\_\_\_ cable having an overall jacket of suitable \_\_\_\_\_ material and installed with listed dusttight termination fittings.
- 66 396 NEC 504.30  
**Separation of Intrinsically Safe Conductors.** (A)(2) Conductors of intrinsically safe circuits shall be \_\_\_\_\_ so that any conductor that might come loose from a terminal is unlikely to come into contact with another terminal.
- 67 396 (A)(2)(1) Separation by at least 50 mm \_\_\_\_\_ from conductors of any nonintrinsically safe circuits.
- 68-69 396 (A)(2)(2) Separation from conductors of nonintrinsically safe circuits by use of a \_\_\_\_\_ metal partition \_\_\_\_\_ or thicker.
- 70 396 (A)(2)(3) Separation from conductors of nonintrinsically safe circuits by use of an approved \_\_\_\_\_ partition.
- 71 396 (B) The clearance between two terminals for connection of field wiring of different intrinsically safe circuits shall be at least \_\_\_\_\_, unless this clearance is permitted to be reduced by the control drawing.
- 72-75 402 NEC 505.7  
**Special Precaution.** (E) Where \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_ are or may be present at the same time, the \_\_\_\_\_ presence shall be considered during the selection and installation of the ....
- 76 412 NEC 506.2  
**Combustible Dust.** Any finely divided solid material that is \_\_\_\_\_ or smaller in diameter and presents a fire or explosion hazard when dispersed and ignited in air.
- 77-79 417 NEC 506.15  
**Wiring Methods.** (A)(4) In industrial establishments with restricted public...not subject to physical damage, Type \_\_\_\_\_ cable listed for use in Zone 1 or \_\_\_\_\_, \_\_\_\_\_ locations, with a gas/vaportight continuous ...
- 80-81 418 (C)(4) Type PLTC and Type \_\_\_\_\_ cable in accordance with the provisions of \_\_\_\_\_, including installation in cable tray systems.
- 82 419 NEC 506.25  
**Grounding and Bonding.** (B) Liquidtight flexible metal conduit shall include an equipment \_\_\_\_\_ of the wire type in compliance with 250.102.

- 83-84 428 NEC 514.8  
**Underground Wiring.** *Exception No. 2: Type \_\_\_\_\_ conduit and Type \_\_\_\_\_ conduit shall be permitted where buried under not less than 600 mm (2 ft) of cover.*
- 85 428 *Type PVC conduit and Type RTRC conduit is used, threaded rigid metal conduit or threaded steel intermediate metal conduit shall be used for the last 600 mm \_\_\_\_\_ of the underground run to emergence ...*
- 86-88 429 NEC 514.13  
**Provisions for Maintenance and Service of Dispensing Equipment.** Each dispensing device shall be provided with a means to remove all external voltage sources, including \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and video circuits and including feedback, during periods of maintenance and service of the dispensing equipment.
- 89-92 429 NEC 515.7  
**Wiring and Equipment Above Class I Locations.** (A) All fixed wiring...Type MC cable, or Type \_\_\_\_\_ and Type \_\_\_\_\_ cable in accordance with the provisions of Article 725, including installation in cable tray systems or Type \_\_\_\_\_ and Type \_\_\_\_\_ cable as permitted in 727.4.
- 93-94 433 NEC 515.8  
**Underground Wiring.** (A) Underground wiring...Type \_\_\_\_\_ conduit, Type \_\_\_\_\_ conduit, or a listed cable.
- 95 433 Where Type PVC conduit...metal conduit shall be used for \_\_\_\_\_ the last 600 mm (2 ft) of conduit run to the conduit point of emergence from the underground location or to the point of connection to an aboveground raceway.
- 96 440 NEC 517.2  
**Batter-Powered Lighting Units.** Individual unit equipment for \_\_\_\_\_ illumination consisting of the following:
- 97 440 (1) \_\_\_\_\_ battery
- 98 440 (2) \_\_\_\_\_ means
- 99-100 440 (3) Provisions for one or more \_\_\_\_\_ mounted on the equipment, or with terminals for \_\_\_\_\_ lamps, or both
- 101 440 (4) \_\_\_\_\_ device arranged to energize the lamps automatically upon failure of the supply to the unit equipment.

- 102 443 NEC 517.13  
**Grounding of Receptacles and Fixed Electrical Equipment in Patient Care Areas.** (B)(1) The following shall be directly connected to an insulated copper equipment grounding conductor that is installed with the branch circuit conductors in the wiring methods as provided in \_\_\_\_\_.
- 103 443 (B)(1)(1) The \_\_\_\_\_ terminals of all receptacles,
- 104 443 (B)(1)(2) Metal boxes and enclosures containing \_\_\_\_\_.
- 105 443 (B)(1)(3) All non-current-carrying conductive surfaces of fixed electrical equipment likely to become energized that are subject to personal contact, operating at over \_\_\_\_\_.
- 106 443 (B)(2) Equipment grounding conductors and equipment bonding jumpers shall be sized in accordance with \_\_\_\_\_.
- 107-108 444 NEC 517.\_\_\_\_\_  
**General Care Areas.** (A) ...The branch circuit serving patient bed locations shall not be part of a \_\_\_\_\_ branch circuit.
- 109-110 444 NEC 517.\_\_\_\_\_  
**Critical Care Areas.** (A) ... The branch circuit serving patient bed locations shall not be part of a \_\_\_\_\_ branch circuit.
- 111-112 445 NEC.\_\_\_\_\_  
**Wet Procedure Locations.** (A) Wet procedure location patient care areas shall be provided with special protection against \_\_\_\_\_ by one of the following means:
- 113 445 (A)(1) Power distribution system that \_\_\_\_\_ limits the possible ground-fault current due to a first fault to a low value, without interrupting the power supply.
- 114 445 (A)(2) Power distribution system in which the power supply is \_\_\_\_\_ if the ground-fault current does, in fact, exceed a value of 6 mA.
- 115 446 NEC 517.30  
**Essential Electrical Systems for Hospitals.** (C)(1) ... Where general care locations are served...circuits from the two separate systems shall be kept \_\_\_\_\_ of each other.
- 116 446 Where critical care locations are served...circuits from the two separate systems shall be kept \_\_\_\_\_ of each other.

- 117-119 454 NEC 517.\_\_\_\_\_ **Grounded Power Systems in Anesthetizing Locations.** (A) One or more battery-powered lighting units shall be provided and shall be permitted to be wired to the \_\_\_\_\_ lighting circuit in the area and connected \_\_\_\_\_ of any local switches.
- 120-124 456 NEC 517.\_\_\_\_\_ **Patient Care Areas.** ...Class 2 and Class 3 signaling and communications systems and power-limited \_\_\_\_\_ shall not be required to comply with the \_\_\_\_\_ requirements of 517.13, to comply with the \_\_\_\_\_ protection requirements of 517.30(C)(3)(5), or to be \_\_\_\_\_ in raceways, unless otherwise specified by Chapter 7 or 8.
- 125-127 457 NEC 517.\_\_\_\_\_ **Isolated Power Systems.** (A)(1) Each isolated power circuit ... Conductors of isolated power circuits \_\_\_\_\_ be installed in cables, raceways, or other enclosures containing \_\_\_\_\_ of another system.
- 128-129 461 NEC 521.\_\_\_\_\_ **Portable Equipment Used Outdoors.** Portable stage and studio lighting equipment and portable power distribution equipment \_\_\_\_\_ shall be permitted for temporary use outdoors, provided the equipment is supervised by qualified personnel while energized and barriered from the general public.
- 130-131 462 NEC 520.\_\_\_\_\_ **Borders, Proscenium Sidelights, Drop Boxes, and Connector Strips.** (B)(2) Listed as \_\_\_\_\_ wiring devices.
- 132 463 (C)(3) Grounded (neutral) conductors shall be white without stripe or shall be identified by a distinctive white marking at their \_\_\_\_\_.
- 133 463 Grounding conductors shall be green with or without yellow stripe or shall be identified by a distinctive green marking at their \_\_\_\_\_.
- 134-135 471 NEC 525.\_\_\_\_\_ **Ground-Fault Circuit-Interrupter (GFCI) Protection.** (A) ... The ground-fault circuit-interrupter shall be permitted to be an integral part of the attachment plug or located in the power-supply cord within \_\_\_\_\_ of the attachment plug.
- 136 471 Listed cord sets incorporating ground-fault circuit-interrupter for personnel shall be \_\_\_\_\_.

- 137 472 (B) Receptacles that are not \_\_\_\_\_ and that only facilitate quick disconnecting and reconnecting of electrical equipment shall not be required to be provided with FGCI protection.
- 138-139 489 NEC 550.\_\_\_\_\_  
**Arc-Fault Circuit-Interrupter Protection.** (B) All 120-volt branch circuits...mobile homes and manufactured homes shall comply with \_\_\_\_\_.
- 140-141 512 NEC 553.\_\_\_\_\_  
**Location of Service Equipment.** ...The main overcurrent protective device that feeds the floating structure shall have ground fault protection not exceeding \_\_\_\_\_.
- 142 512 Ground fault protection of each individual branch or feeder circuit shall be \_\_\_\_\_ as a suitable alternative.
- 143-144 513 NEC 555.\_\_\_\_\_  
**Ground-Fault Protection.** The main overcurrent protective device that feeds the marina shall have ground fault protection not exceeding \_\_\_\_\_.
- 145 513 Ground-fault protection of each individual branch or feeder circuit shall be \_\_\_\_\_ as a suitable alternative.
- 146-147 518 NEC 590.6  
**Ground-Fault Protection for Personnel.** (A) Temporary receptacle installations used to supply \_\_\_\_\_ power to equipment used by personnel during construction, remodeling, maintenance, repair, or demolition of buildings, structures, equipment, or \_\_\_\_\_ shall comply with the requirements of 590.6(A)(1) through (A)(3), as applicable.
- 148-149 518 (A)(1) All 125-volts...by personnel shall have \_\_\_\_\_ protection for personnel.
- 150-151 518 (A)(2) Ground-fault circuit-interrupter protection for personnel \_\_\_\_\_ be provided for all 125-volt, single-phase, \_\_\_\_\_ receptacle outlets installed or existing as part of the permanent wiring of the building or structure and used for temporary electric power.
- 152 518 (A)(3) All 125-volt and 125/250-volt, single-phase, \_\_\_\_\_ ampere receptacle outlets that are a part of a 15-kW or smaller portable generator shall have listed ground-fault circuit-interrupter protection for personnel.
- 153 519 NEC 600.2  
**LED Sign illumination System.** A complete lighting system for use in signs and outline lighting consisting of \_\_\_\_\_ light sources,

power supplies, wire, and connectors to complete the installation.

- 154 519 Note: Where used in illumination systems for signs, outline lighting or skeleton tubing, decorative elements, or art forms, \_\_\_\_\_ are neon tubing as defined by this article.
- 155 519 NEC 600.4  
**Markings.** (C) The markings required in 600.4(A) and listing labels \_\_\_\_\_ be required to be visible after installation but shall be permanently applied in a location visible during servicing.
- 156-157 519 NEC 600.\_\_\_\_\_  
**Branch Circuits.** (B) Branch circuits that supply signs shall be rated in accordance with 600.5(B)(1) or (B)(2) and shall be considered to be \_\_\_\_\_ for the purposes of calculations.
- 158-159 520 NEC 600.\_\_\_\_\_  
**Disconnects.** Each sign and outline...controlled by an externally operable switch or circuit breaker \_\_\_\_\_ all underground conductors and controls no other load.
- 160 520 The switch or circuit breaker shall open all \_\_\_\_\_ simultaneously on multi-wire branch circuits in accordance with 210.4(B).
- 161-162 521 NEC 600.7  
**Grounding and Bonding.** (B)(1) *Exception: Remote metal parts of a section sign or outline lighting system only supplied by a remote \_\_\_\_\_ power supply \_\_\_\_\_ be required to be bonded to an equipment grounding conductor.*
- 163-164 527 NEC 610.\_\_\_\_\_  
**Festoon Cable.** Single- and multiple-conductor cable intended for use and installation in accordance with Article \_\_\_\_\_ where flexibility is required.
- 165 536 NEC 620.21  
**Wiring Methods.** (A)(1)(c) *Exception to 620.21(A)(1)(c)(1), (2), and (3): The conduit length shall not be required to be \_\_\_\_\_ between risers and limit switches, interlocks, operating buttons, and similar devices.*
- 166-167 541 NEC 620.\_\_\_\_\_  
**Car Light, Receptacle(s), and Ventilation Disconnecting Means.** *Exception: Where an individual branch circuit supplies car lighting, a receptacle(s), and a ventilation motor not exceeding \_\_\_\_\_, the disconnecting means required by 620.53 shall be permitted to comply with 430.109(C).*

- 168 541 *This disconnecting means shall be listed and shall be capable of being locked in the \_\_\_\_\_ position.*
- 169-170 543 NEC 620.\_\_\_\_\_  
**Emergency and Standby Power Systems.** (C) ...Where an additional power source is connected to the load side of the disconnecting means, which allows \_\_\_\_\_ movement of the car to permit evacuation of passengers, the disconnecting means required in 620.51 shall be provided with an auxiliary contact that is positively opened mechanically, and the opening shall not be solely dependent on springs.
- 171-172 543 NEC 625.\_\_\_\_\_  
**Electric Vehicle.** An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, \_\_\_\_\_ motorcycles, and the like ...
- 173 543 Plug-in hybrid electric vehicles (PHEV) are considered \_\_\_\_\_ vehicles.
- 174 543 For the purpose of this article, \_\_\_\_\_, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.
- 175-177 544 NEC 625.\_\_\_\_\_  
**Plug-In Hybrid Electric Vehicle (PHEV).** A type of electric vehicle intended for \_\_\_\_\_ use with the ability to store and use off-vehicle electrical energy in the rechargeable energy storage system, and having a second source of \_\_\_\_\_ power.
- 178-179 553 NEC 630.\_\_\_\_\_  
**Disconnecting Means.** An \_\_\_\_\_ disconnecting means shall be provided in the supply circuit for each arc welder that is not equipped with a disconnect mounted as an integral part of the welder.
- 180 556 NEC 640.3  
**Locations and Other Articles.** (M) Additions of pipe organ pipes to an \_\_\_\_\_ organ shall be in accordance with 650.4 through 650.8.
- 181 557 NEC 640.9  
**Wiring Methods.** (B) ...This section shall not apply to the use of \_\_\_\_\_ power supply (UPS) equipment, or other sources of supply, that are intended to act as a direct replacement for the primary circuit power source and are connected to the primary circuit input.

- 182-183 560 NEC 645.2  
**Critical Operations Data System.** An information technology equipment system that requires \_\_\_\_\_ operation for reasons of public safety, emergency management, national security, or \_\_\_\_\_.
- 184 560 **Remote Disconnect Control.** An electric device and circuit that controls a \_\_\_\_\_ means through a relay or equivalent device.
- 185-186 562 NEC 645.10  
**Disconnecting Means.** (A)(1) Remote disconnect controls shall be located at approved locations \_\_\_\_\_ accessible in case of fire to \_\_\_\_\_ personnel and emergency responders.
- 187 562 (A)(2) The remote disconnect controls for the control of electronic power and \_\_\_\_\_ systems shall be grouped and identified.
- 188 562 A single means to control both systems shall be \_\_\_\_\_.
- 189-190 562 (A)(3) Where multiple zones are created, each zone shall have an \_\_\_\_\_ means to confine fire or products of combustion to \_\_\_\_\_ the zone.
- 191 562 (B) Remote disconnecting controls shall \_\_\_\_\_ be required for critical operations data systems when all of the following conditions are met.
- 192-194 563 NEC 645.\_\_\_\_\_  
**Engineering Supervision.** As an \_\_\_\_\_ to the feeder and service load calculations required by Parts III and IV ... qualified persons under \_\_\_\_\_ supervision.
- 195-196 573 NEC 670.\_\_\_\_\_  
**Short-Circuit Current Rating.** Industrial machinery shall not be installed where the \_\_\_\_\_ fault current exceeds its short-circuit current rating as marked in accordance with 670.3(A)(4).
- 197-198 575 NEC 680.\_\_\_\_\_  
**Dry-Niche Luminaire.** A luminaire intended for installation in the \_\_\_\_\_ or wall of a pool, spa, or fountain in a niche that is sealed against the entry of water.
- 199-200 579 NEC 680.21  
**Motors.** (C) Outlets supplying pool pump motors connected to single-phase, \_\_\_\_\_ volt through \_\_\_\_\_ volt branch circuits, rated 15 or 20 amperes, whether by receptacle or by direct connection, shall be provided with ground-fault circuit-interrupter protection for personnel.

- 201 580 NEC 680.23  
**Underwater Luminaires.** (A)(2) ...or one that incorporates an approved system of \_\_\_\_\_ insulation between the primary and secondary windings.
- 202 581 (C)(1) ... Other than listed \_\_\_\_\_ luminaires not requiring grounding, a dry-niche luminaire shall have means for accommodating one equipment grounding conductor for each conduit entry.
- 203 583 NEC 680.25  
**Feeders.** (A)(1)(1) \_\_\_\_\_ flexible nonmetallic conduit.
- 204 583 (A)(1)(2) \_\_\_\_\_ polyvinyl chloride conduit.
- 205 583 (A)(1)(3) \_\_\_\_\_ thermosetting resin conduit.
- 206 583 (A)(1)(4) \_\_\_\_\_ tubing where installed on or within a building.
- 207 583 (A)(1)(5) Electrical \_\_\_\_\_ tubing where installed within a building.
- 208 583 (A)(1)(6) Type \_\_\_\_\_ cable where installed within a building and if not subject to corrosive environment.
- 209-211 584 NEC 680.26  
**Equipotential Bonding.** (B)(7) All fixed metal parts shall be bonded including, but not limited to, metal-sheathed cables and raceways, metal piping, \_\_\_\_\_, metal fences, and \_\_\_\_\_ and \_\_\_\_\_.
- 212-213 586 NEC 680.43  
**Indoor Installations.** *Exception No. 2: The equipotential bonding requirements for perimeter surfaces in 680.26(B)(2) shall not apply to a listed \_\_\_\_\_ spa or hot tub installed \_\_\_\_\_ a finished door.*
- 214-215 599 NEC 690.10  
**Stand-Alone Systems.** (E) ... Circuit breakers that are marked “\_\_\_\_\_” and “\_\_\_\_\_” shall not be backfed.
- 216 599 NEC 690.11  
**Arc-Fault Circuit Protection (Direct Current).** Photovoltaic systems with dc source circuits, dc output circuits, or both, on or penetrating a building operating at a PV system maximum system voltage of \_\_\_\_\_ or greater, shall be protected by a listed (dc) arc-fault circuit interrupter...

- 217 601 NEC 690.31  
**Methods Permitted.** (E)(1) Wiring methods shall not be installed within \_\_\_\_\_ of the roof decking or sheathing except where directly below the roof surface covered by PV modules and associated equipment.
- 218 601 Circuits shall be run \_\_\_\_\_ to the roof penetration point to supports a minimum of 25 cm (10 in.) below the roof decking.
- 219 601 (E)(3) The following wiring methods and enclosures that contain PV power source conductors shall be marked with the wording “\_\_\_\_\_” by means of permanently affixed labels or other approved permanent marking.
- 220 617 NEC 695.3  
**Power Source(s) for Electric Motor-Driven Fire Pumps.** (F) \_\_\_\_\_ shall not be permitted to be used for fire pump service.
- 221-222 627 NEC 700.24  
**Automatic Load Control Relay.** If an emergency lighting load is \_\_\_\_\_ energized upon loss of the normal supply, a listed \_\_\_\_\_ relay shall be permitted to energize the load.
- 223-224 628 NEC 701.6  
**Signals.** (D) To indicate a ground fault in solidly grounded wye, legally required standby systems of more than \_\_\_\_\_ to ground and circuit-protective devices rated \_\_\_\_\_ or more.
- 225 629 NEC 701.12  
**General Requirements.** (B)(2) ... Where power is needed for the operation of the fuel transfer pumps to deliver fuel to a generator set day tank, the pumps \_\_\_\_\_ connected to the legally required standby power system.
- 226 639 NEC 708.21  
**Ventilation.** Adequate ventilation shall be provided for the alternate power source for continued operation under \_\_\_\_\_ anticipated ambient temperatures.
- 227 652 NEC 760.41  
**NPLFA Circuit Power Source Requirements.** (B) The branch circuit supplying the fire alarm equipment(s) shall supply \_\_\_\_\_.
- 228 655 NEC 760.121  
**Power Sources for PLFA Circuits.** (B) The branch circuit supplying the fire alarm equipment(s) shall supply \_\_\_\_\_.
- 229 660 NEC 770.3  
**Other Articles.** (A) Listed optical fiber cables shall be permitted to be installed in

\_\_\_\_\_ locations.

- 230 687 NEC 820.44  
**Overhead (Aerial) Coaxial Cables.** (A)(4) *Exception: Where proximity to electric light, power,... clearances of not less than \_\_\_\_\_ from electric light, power Class 1, or non-power-limited fire alarm circuit conductors.*
- 231 687 *The clearance requirement shall apply at all points along the drop, and it shall increase to \_\_\_\_\_ at the pole.*
- 232-233 695 Article 830  
**Network-Powered Broadband Communications Systems**  
Note: The general term *grounding conductor* as previously used in this article is replaced by either the term \_\_\_\_\_ or the term \_\_\_\_\_ (GEC), where applicable, to more accurately reflect the application and function of the conductor.