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**IDAPA 07
TITLE 01
CHAPTER 06**

07.01.06 - RULES GOVERNING THE USE OF NATIONAL ELECTRICAL CODE

000. LEGAL AUTHORITY.

The Idaho Electrical Board is authorized under Section 54-1001, Idaho Code, to adopt rules concerning the use of the National Electrical Code. (2-26-93)

001. TITLE AND SCOPE.

These rules shall be cited as IDAPA 07.01.06, "Rules Governing the Use of National Electrical Code," Division of Building Safety. These rules prescribe which edition of the National Electrical Code will be administered by the Idaho Electrical Board. (2-26-93)

002. WRITTEN INTERPRETATIONS.

This agency has no written interpretations of this chapter. (2-26-93)

003. ADMINISTRATIVE APPEALS.

This chapter does not allow administrative relief of the provisions outlined herein. (2-26-93)

004. -- 010. (RESERVED).

011. ADOPTION AND INCORPORATION BY REFERENCE OF THE NATIONAL ELECTRICAL CODE, 2008 EDITION.

01. Documents. Under the provisions of Section 54-1001, Idaho Code, the National Electrical Code, 2008 Edition, (herein NEC) is hereby adopted and incorporated by reference for the state of Idaho and shall be in full force and effect on and after July 1, 2008, with the exception of the following: (4-2-08)

a. Compliance with Article 675.8(B) will include the additional requirement that a disconnecting means always be provided at the point of service from the utility no matter where the disconnecting means for the machine is located. (5-3-03)

b. Compliance with Article 550.32(B) shall limit installation of a service on a manufactured home to those homes manufactured after January 1, 1992. (5-3-03)

c. Poles used as lighting standards that are forty (40) feet or less in nominal height and that support no more than four (4) luminaires operating at a nominal voltage of three hundred (300) volts or less, shall not be considered to constitute a structure as that term is defined by the National Electrical Code (NEC). The disconnecting means shall not be mounted to the pole. The disconnecting means may be permitted elsewhere in accordance with NEC, Article 225.32, exception 3. SEC special purpose fuseable connectors (model SEC 1791-DF or model SEC 1791-SF) or equivalent shall be installed in a listed handhole (underground) enclosure. The enclosure shall be appropriately grounded and bonded per the requirements of the NEC applicable to Article 230-Services. Overcurrent protection shall be provided by a (fast-acting – minimum - 100K RMS Amps 600 VAC) rated fuse. Wiring within the pole for the luminaires shall be protected by supplementary overcurrent device (time-delay – minimum - 10K RMS Amps 600 VAC) in break-a-away fuse holder accessible from the hand hole. Any poles supporting or incorporating utilization equipment or exceeding the prescribed number of luminaires, or in excess of forty (40) feet, shall be considered structures, and an appropriate service disconnecting means shall be required per the NEC. All luminaire-supporting poles shall be appropriately grounded and bonded per the NEC. (4-6-05)

d. Compliance with Article 210.12 Arc-Fault Circuit-Interrupter Protection. (4-2-08)

i. Definition. Arc-Fault Circuit-Interrupter is a device intended to provide protection from the effects of arc faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when an arc fault is detected. (4-2-08)

ii. Dwelling Unit Bedrooms. All one hundred twenty (120)-volt, single phase, fifteen (15)-ampere and twenty (20)-ampere branch circuits supplying outlets installed in dwelling unit bedrooms shall be protected by a

listed arc-fault circuit interrupter, combination type installed to provide protection of the branch circuit. (4-2-08)

e. Compliance with Article 680.26 Bonding. (4-2-08)

i. Performance. The bonding required by this section shall be installed to eliminate voltage gradients in the pool area as prescribed. FPN: This section does not require that the eight (8) AWG or larger solid copper bonding conductor be extended or attached to any remote panelboard, service equipment, or any electrode. (4-2-08)

ii. Bonded Parts. The parts specified in 680.26(B)(1) through (B)(5) shall be bonded together. (4-2-08)

(1) **Metallic Structural Components.** All metallic parts of the pool structure, including the reinforcing metal of the pool shell, coping stones, and deck, shall be bonded. The usual steel tie wires shall be considered suitable for bonding the reinforcing steel together, and welding or special clamping shall not be required. These tie wires shall be made tight. If reinforcing steel is effectively insulated by an encapsulating nonconductive compound at the time of manufacture and installation, it shall not be required to be bonded. Where reinforcing steel is encapsulated with a nonconductive compound, provisions shall be made for an alternate means to eliminate voltage gradients that would otherwise be provided by unencapsulated, bonded reinforcing steel. (4-2-08)

(2) **Underwater Lighting.** All forming shells and mounting brackets of no-niche luminaries (fixtures) shall be bonded unless a listed low-voltage lighting system with nonmetallic forming shells not requiring bonding is used. (4-2-08)

(3) **Metal Fittings.** All metal fittings within or attached to the pool structure shall be bonded. Isolated parts that are not over one hundred (100) mm (four (4) inches) in any dimension and do not penetrate into the pool structure more than twenty-five (25) mm (one (1) inch) shall not require bonding. (4-2-08)

(4) **Electrical Equipment.** Metal parts of electrical equipment associated with the pool water circulating system, including pump motors and metal parts of equipment associated with pool covers, including electric motors, shall be bonded. Metal parts of listed equipment incorporating an approved system of double insulation and providing a means for grounding internal nonaccessible, non-current-carrying metal parts shall not be bonded. Where a double-insulated water-pump motor is installed under the provisions of this rule, a solid eight (8) AWG copper conductor that is of sufficient length to make a bonding connection to a replacement motor shall be extended from the bonding grid to an accessible point in the motor vicinity. Where there is no connection between the swimming pool bonding grid and the equipment grounding system for the premises, this bonding conductor shall be connected to the equipment grounding conductor of the motor circuit. (4-2-08)

(5) **Metal Wiring Methods and Equipment.** Metal-sheathed cables and raceways, metal piping, and all fixed metal parts except those separated from the pool by a permanent barrier shall be bonded that are within the following distances of the pool: (4-2-08)

(a) Within one and five tenths (1.5) meters (five (5) feet) horizontally of the inside walls of the pool. (4-2-08)

(b) Within three and seven tenths (3.7) meters (twelve (12) feet) measured vertically above the maximum water level of the pool, or any observation stands, towers, or platforms, or any diving structures. (4-2-08)

iii. **Common Bonding Grid.** The parts specified in 680.26B shall be connected to a common bonding grid with a solid copper conductor, insulated, covered, or bare, not smaller than eight (8) AWG. Connection shall be made by exothermic welding or by pressure connectors or clamps that are labeled as being suitable for the purpose and are of stainless steel, brass, copper, or copper alloy. The common bonding grid shall be permitted to be any of the following: (4-2-08)

(1) The structural reinforcing steel of a concrete pool where the reinforcing rods are bonded together by the usual steel tie wires or the equivalent. (4-2-08)

(2) The wall of a bolted or welded metal pool. (4-2-08)

- (3) A solid copper conductor, insulated, covered, or bare, not smaller than eight (8) AWG. (4-2-08)
 - (4) Rigid metal conduit or intermediate metal conduit of brass or other identified corrosion-resistant metal conduit. (4-2-08)
 - iv. Connections. Where structural reinforcing steel or the walls of bolted or welded metal pool structures are used as a common bonding grid for nonelectrical parts, the connections shall be made in accordance with 250.8. (4-2-08)
 - v. Pool Water Heaters. For pool water heaters rated at more than fifty (50) amperes that have specific instructions regarding bonding and grounding, only those parts designated to be bonded shall be bonded, and only those parts designated to be grounded shall be grounded. (4-2-08)
- 02. Availability.** This document is available at the office of the Division of Building Safety at 1090 E. Watertower St., Meridian, Idaho 83642. (4-2-08)
- 012. -- 999. (RESERVED).**

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