

N (A) Additional Requirements.

- (1) Fountains that have water common to a pool shall also comply with Part II of Article 680.
- (2) Fountains intended for recreational use by pedestrians, including splash pads, shall also comply with the requirements in 680.26.
- (3) Part V does not apply to self-contained, portable fountains, which shall comply with Parts II and III of Article 422.

N (B) Location of Equipment Exceeding the Low-Voltage Contact Limit. Equipment with ratings exceeding the low-voltage contact limit shall be located at least 1.5 m (5 ft) horizontally from the inside walls of a fountain, unless separated from the fountain by a solid fence, wall, or other permanent barrier.

680.51 Luminaires, Submersible Pumps, and Other Submersible Equipment.

(A) Ground-Fault Circuit Interrupter. Luminaires, submersible pumps, and other submersible equipment, unless listed for operation at low-voltage contact limit or less and supplied by a transformer or power supply that complies with 680.23(A)(2), shall be GFCI protected.

(B) Operating Voltage. No luminaires shall be installed for operation on supply circuits over 150 volts between conductors. Submersible pumps and other submersible equipment shall operate at 300 volts or less between conductors.

(C) Luminaire Lenses. Luminaires shall be installed with the top of the luminaire lens below the normal water level of the fountain unless listed for above-water locations. A luminaire facing upward shall comply with either (1) or (2):

- (1) Have the lens guarded to prevent contact by any person
- (2) Be listed for use without a guard

(D) Overheating Protection. Electrical equipment that depends on submersion for safe operation shall be protected against overheating by a low-water cutoff or other approved means when not submerged.

(E) Wiring. Equipment shall be equipped with provisions for threaded conduit entries or be provided with a suitable flexible cord. The maximum length of each exposed cord in the fountain shall be limited to 3.0 m (10 ft). Cords extending beyond the fountain perimeter shall be enclosed in approved wiring enclosures. Metal parts of equipment in contact with water shall be of brass or other approved corrosion-resistant metal.

(F) Servicing. All equipment shall be removable from the water for relamping or normal maintenance. Luminaires shall not be permanently embedded into the fountain structure such that the water level must be reduced or the fountain drained for relamping, maintenance, or inspection.

(G) Stability. Equipment shall be inherently stable or be securely fastened in place.

680.52 Junction Boxes and Other Enclosures.

(A) General. Junction boxes and other enclosures used for other than underwater installation shall comply with 680.24.

(B) Underwater Junction Boxes and Other Underwater Enclosures. Junction boxes and other underwater enclosures shall meet the requirements of 680.52(B)(1) and (B)(2).

(1) Construction.

(a) Underwater enclosures shall be equipped with provisions for threaded conduit entries or compression glands or seals for cord entry.

(b) Underwater enclosures shall be listed and rated for prolonged submersion and made of copper, brass, or other corrosion-resistant material.

Δ (2) Installation. Underwater enclosure installations shall comply with 680.52(B)(2)(a) and (B)(2)(b).

(a) Underwater enclosures shall be filled with a listed potting compound to prevent the entry of moisture.

(b) Underwater enclosures shall be firmly attached to the supports or directly to the fountain surface and bonded as required. Where the junction box is supported only by conduits in accordance with 314.23(E) and (F), the conduits shall be of copper, brass, stainless steel, or other corrosion-resistant metal. Where the box is fed by nonmetallic conduit, it shall have additional supports and fasteners of copper, brass, or other corrosion-resistant material.

680.54 Grounding and Bonding.

Δ (A) Grounding. The following equipment shall be connected to an equipment grounding conductor:

- (1) All electrical equipment located within the fountain or within 1.5 m (5 ft) of the inside wall of the fountain, other than listed low-voltage luminaires not requiring grounding
- (2) All electrical equipment associated with the recirculating system of the fountain
- (3) Panelboards that are not part of the service equipment and that supply any electrical equipment associated with the fountain

(B) Bonding. If a conductor is used for bonding, it shall be a minimum 8 AWG solid copper conductor. The following parts shall be bonded together and connected to an equipment grounding conductor for a branch circuit supplying fountain equipment:

- (1) All metal piping systems associated with the fountain
- (2) All metal fittings within or attached to the fountain
- (3) Metal parts of electrical equipment associated with the fountain water-circulating system, including pump motors
- (4) Metal raceways that are within 1.5 m (5 ft) of the inside wall or perimeter of the fountain and that are not separated from the fountain by a permanent barrier