be installed in accordance with 680.23. Where connection to a forming shell is specified, the connection shall be to the conduit termination point.

(F) Branch-Circuit Wiring.

Δ **(1) Wiring Methods.** Where branch-circuit wiring, on the supply side of enclosures and junction boxes connected to conduits run to underwater luminaires, is installed in corrosive environments, the wiring method of that portion of the branch circuit shall be in accordance with 680.14.

Exception: Where connecting to transformers or power supplies for pool lights, liquidtight flexible metal conduit shall be permitted. The length shall not exceed 1.8 m (6 ft) for any one length or exceed 3.0 m (10 ft) in total length used.

Δ **(2) Equipment Grounding.** Other than listed low-voltage luminaires not requiring grounding, all through-wall lighting assemblies, wet-niche, dry-niche, or no-niche luminaires shall be connected to an insulated copper equipment grounding conductor installed with the circuit conductors. The equipment grounding conductor shall be installed without joint or splice except as permitted in 680.23(F)(2)(a) and (F)(2)(b). The equipment grounding conductor shall be sized in accordance with 250.122 but shall not be smaller than 12 AWG.

Exception: An equipment grounding conductor between the wiring chamber of the secondary winding of a transformer and a junction box shall be sized in accordance with the transformer secondary overcurrent protection provided.

(a) If more than one underwater luminaire is supplied by the same branch circuit, the equipment grounding conductor, installed between the junction boxes, transformer enclosures, or other enclosures in the supply circuit to wet-niche luminaires, or between the field-wiring compartments of dry-niche luminaires, shall be permitted to be terminated on grounding terminals.

(b) If the underwater luminaire is supplied from a transformer, ground-fault circuit interrupter, clock-operated switch, or a manual snap switch that is located between the panelboard and a junction box connected to the conduit that extends directly to the underwater luminaire, the equipment grounding conductor shall be permitted to terminate on grounding terminals on the transformer, ground-fault circuit interrupter, clock-operated switch enclosure, or an outlet box used to enclose a snap switch.

In addition to the bonding jumper and EGC of the cord or cable contained in the nonmetallic conduit between the forming shell and the deck box, the wiring method from the deck box to the power source is required to contain a separate EGC regardless of the type of conduit installed. This EGC must be insulated, copper, and not smaller than 12 AWG. The grounding terminals within the deck (junction) box are used to terminate and bond together all the equipment grounding and bonding conductors associated with the circuit supplying the underwater luminaire(s).

Exhibit 680.5 illustrates an installation of a forming shell for a wet-niche luminaire and a flush junction (deck) box installed according to 680.24(A)(2). (A surface deck box is also shown in Exhibit 680.5.)

See also

680.24(D) for commentary on listed pool junction boxes

(3) Conductors. Conductors on the load side of a GFCI or of a transformer, used to comply with the provisions of 680.23(A)(8), shall not occupy raceways, boxes, or enclosures containing other conductors unless one of the following conditions applies:

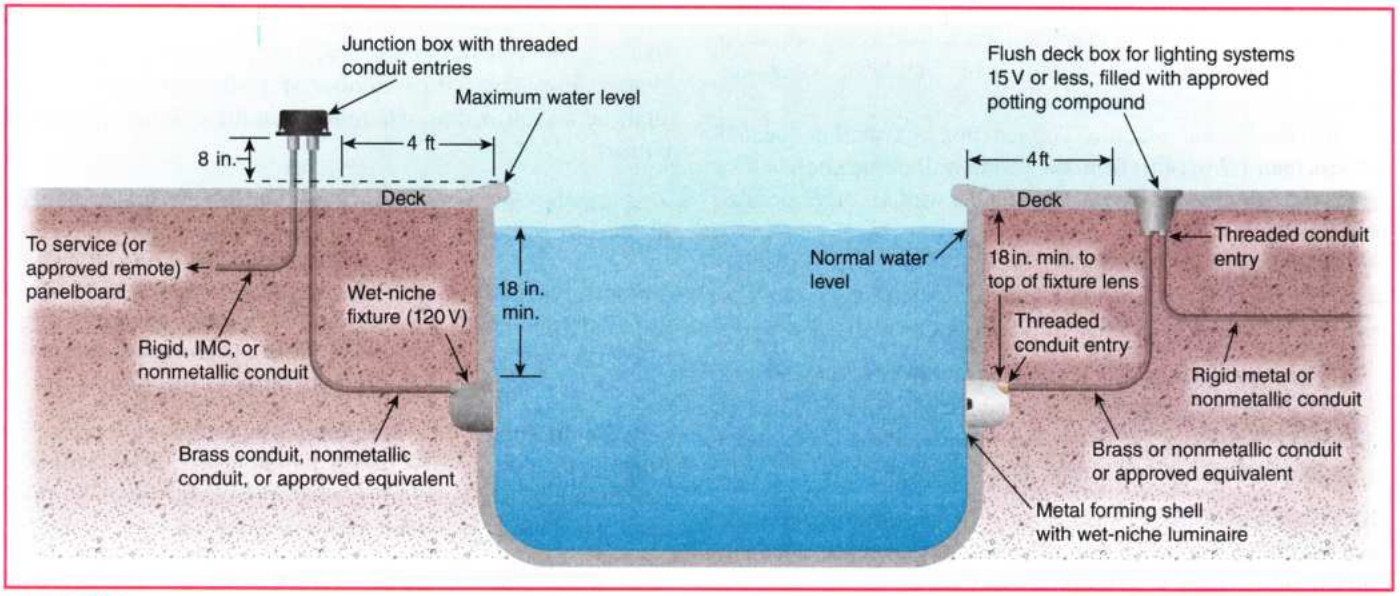

EXHIBIT 680.5 A flush junction (deck) box and a forming shell for a wet-niche luminaire.