



CODE TOPICS

2020 FBC 7th ED SECTION 454.2 RESIDENTIAL SWIMMING POOLS

POOL BOND-LOOP-EQUIPMENT

TOPIC BACKGROUND

Everyone knows the bond loop is connected to four points of the pool steel, is to be placed 18" to 24" from the pool water in plan view and 4" to 6" below subgrade. In paver decks it is reasonable to take the pool beam as the subgrade elevation. Recent deck bonding inspections find the bond loop placed for the deck inspection before backfill and the subgrade is placed. Or the bond loop laying in the bottom of the footing excavation at the back of the pool where there is fill between the pool and footing. Most often occurs where there is a raised deck area and the retaining wall or extended footings are formed/poured after the bond loop is connected. This causes the loop to be buried much deeper than 6" in the backfill or encased in the concrete footing deeper than 6", making it useless.

WHAT THE CODE SAYS

What the 2017 NEC Section 680.26(B)(2), **Perimeter Surfaces:**

Requires the perimeter surface around a pool to have bonding connected to POOL STEEL at FOUR points around the pool/spa.

Section (b) Alternate Means says:

(b) *Alternate Means.* Where structural reinforcing steel is not available or is encapsulated in a nonconductive compound, a copper conductor(s) shall be utilized where the following requirements are met:

- (1) At least one minimum 8 AWG bare solid copper conductor shall be provided.
- (2) The conductors shall follow the contour of the perimeter surface.

- (3) Only listed splices shall be permitted.
- (4) The required conductor shall be 450 mm to 600 mm (18 in. to 24 in.) from the inside walls of the pool.
- (5) The required conductor shall be secured within or under the perimeter surface 100 mm to 150 mm (4 in. to 6 in.) below the subgrade.

REQUIRED AT PLAN REVIEW

These requirements are already shown on our Standard Engineering sheets S1 and S2.

REQUIRED DURING INSPECTION

The bond loop must be placed after the piping trench or retaining wall backfill has been placed in order to be 4" to 6" from FINAL SUBGRADE surface at inspection.

NOT READY FOR BOND LOOP



NOT READY FOR BOND LOOP



READY FOR BOND LOOP



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Disclaimer: This is offered as summary and guidance on code requirements. This does not authorize a code violation.

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