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Swimming Pool Equipotential Bonding Grid

Code: 2005 Electrical Code
Section: 680.26 C

Date: May 9, 2005

Question:

What is the requirement for an equipotential bonding grid around swimming pools?

Answer:

This question references a change in the 2005 State Electrical Code requiring that an equipotential bonding grid be established around the perimeter of the pool. Equipotential bonding grids and their use are not new to the Code, yet are new to Article 680. There is no change in the requirements for bonding metallic components of the pool under previous Code language. This new Section adds to those requirements by installing an equipotential bonding grid under the paved walking surfaces extending outward to a minimum of 3 feet and encompassing the top edge of the pool wall following the contour of that edge, still meeting the concept that all metallic sections or parts of the pool be bonded together to eliminate differences of "potential" between any metal components of the pool or surrounding conductive surfaces. This "grid" is manufactured by applying crisscrossed rebar, or minimum number 8 steel wire mesh, or a copper grid system comprised of minimum number 8 copper conductor installed in a uniformly spaced perpendicular grid pattern, placed between the earth and the concrete or within the concrete, with no insulating material separating the earth and concrete. The purpose is to assure a grounding plane by which stray voltage might have a more effective path to earth.

NOTE: At this time there is a Tentative Interim Amendment, or TIA, being considered for the 2005 National Electrical Code, our State Electrical Code, to clarify this Section. Code Making Panel 17 had considered this during a specially called committee meeting in April due to misunderstandings of this Section. The TIA will reflect that the equipotential bonding grid was not intended to be required to follow the bottom or sides of a non-conductive pool, only to be developed in a minimum 3 feet wide pattern from the edge (contour) outward, under the concrete walking surface surrounding the pool. This is for clarification only and will not effect the original intent of Section 680.26. As stated, walls and floors of steel reinforced concrete or metal shall meet the bonding requirements of Section 680.26(B).

Keywords:

Swimming pool bonding