

# TOWN OF JUPITER BUILDING DEPARTMENT FIELD INSPECTION SERVICES

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## BONDING OF POOL WATER

Recent industry changes have created an issue concerning equipotential bonding that is having an impact on swimming pool construction and all pool inspections. The issue of concern is the requirement found in the National Electrical Code 680.26(C) dealing with the bonding of pool water. This article says:

***“(C) Pool Water.** An intentional bond of a minimum conductive surface area of 5800mm<sup>2</sup> (9 in.<sup>2</sup>) shall be installed in contact with the pool water. This bond shall be permitted to consist of parts that are required to be bonded in 680.26(B).”*

In many pools, this code requirement is met by the installation of a metallic ladder, a metallic hand rail or standard wet niche lighting. Each of these is required to be bonded to the equipotential bonding grid since they have parts in direct contact with pool water. In the case of standard wet niche lighting the metal ring surrounding the light provides the direct contact. However, many residential swimming pools being installed do not contain a metallic ladder or hand rail and, in recent times, standard wet niche lighting is being replaced with a plastic wet niche or LED lighting which require no bonding. The issue of concern then becomes how to effectively bond the pool water using this type of pool construction thus meeting the requirement as stated in 680.26(C).

Some have felt that since a listed swimming pool pump has pool water flowing through it and is required to be bonded that this will satisfy the code reference in question. However, there is a lack of any language either from any pump manufacturer or from a National Recognized Testing Laboratory (NRTL), such as Underwriters Laboratory (UL), specifically stating that there is the required 9 in.<sup>2</sup> of conductive surface in direct contact with the pool water. The same holds true for listed pool heaters. Therefore, it is the position of the Town of Jupiter that neither pumps nor heaters can be used to meet the requirement of NEC 680.26(C) unless that language is available and on site at time of inspection.

In lieu of using conventional means to bond pool water there are listed products available that allow a contractor to satisfy this code requirement a sampling of which can be found at the following websites:

<http://waterbonder.com/>  
<http://www.bondsafe680.com/>  
<http://permacastonline.com/>

### CONCLUSION

The Town of Jupiter always has been and remains committed to making our community as safe as possible. The use of residential swimming pools is no exception. This is of special concern since we have a large number of swimming pools and the majority is accessible to children. In view of the foregoing, all future inspections will be looking to ensure this type of bonding prior to the introduction of pool water.