



**Summary of Substantive Changes  
between the 2001 and the 2014 editions of  
CSA C22.2 No. 108 “Liquid pumps”**

**Presented to the IAPMO Standards Review Committee on December 8, 2014**

**General:** The changes to this standard should not have an impact on currently listed products. The substantive changes are:

- Clarified the use of the term bonding versus grounding throughout the standard (see Sections 5.11.2 and 8.2.2)
- Added new requirements for aquarium pumps (see Section 13 and Table 8)

Section 5.11, Bonding: Clarified the use of the term bonding versus grounding as follows:

**5.11.1**

*Pumps shall be constructed to comply with the requirements of CAN/CSA-C22.2 No. 0.4.*

**5.11.2**

*For pumps provided with power supply cords, bonding impedance test in accordance with the Impedance test of CAN/CSA-C22.2 No. 0.4 shall be performed. The test shall be conducted from the termination of the power supply cord to parts requiring bonding. The supply cord conductors themselves are exempt from the bond impedance test and are not included in the measurement.*

**8.2.2 ~~Grounding and~~ Bonding**

*Submersible pumps, including deep-well submersible pumps that have motor leads extending from the motor enclosure, shall have provision for ~~grounding-bonding~~ by*

*a) a bonding conductor in the supply cord;*

*b) an external ~~grounding-bonding~~ terminal or screw of stainless steel or suitable nonferrous metal, that is readily accessible while making the supply connections to the pump and located so that it is not exposed to abuse; or*

*c) for deep well submersible pumps, where the ~~grounding-bonding~~ connection has to be made to the metal motor housing, a bonding conductor at least equal in length to the motor leads and either of the type specified in Clause 8.2.1.2 or, if bare copper, No. 6 AWG or larger. The bonding conductor may be connected to one of the studs securing the motor to the pump, provided that the stud is of stainless steel or suitable nonferrous metal.*

New Section:

[13 Aquarium pumps](#)

New Table:

[Table 8, Dielectric strength test voltages \(See Clause 13.3.2.\)](#)