



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, DC 20207

Memorandum

DATE: June 16, 2009

TO: Barbara Little, General Attorney *BL*
Office of General Counsel

THROUGH: Robert Howell, Assistant Executive Director *RH*
Office of Hazard Identification and Reduction
Hugh McLaurin, Associate Executive Director *HMM*
Directorate for Engineering Sciences
Mark Kumagai, Director *MK*
Division of Mechanical Engineering

FROM: Troy Whitfield, Mechanical Engineer *TW*
Directorate for Engineering Sciences
Division of Mechanical Engineering

SUBJECT: Unblockable Drains

The Virginia Graeme Baker Pool and Spa Safety Act was enacted by Congress and signed by President Bush on December 19, 2007. Intended to prevent the hidden hazard of drain entrapment and evisceration in pools and spas, the law became effective on December 19, 2008. Under the law, all public pools and spas must have ASME/ANSI A112.19.8-2007 (with addendum 8a-2008) compliant drain covers installed and where a single main drain other than an unblockable drain exists, a second anti-entrapment system must be installed.

The ASME/ANSI standard, *Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs* defines the suction fitting as "all components, including the sump and/or body, cover/grate, and hardware" (fasteners). There is currently no definition of 'unblockable drain' provided in either the standard or the Act. There is however a torso specimen defined in the standard representing the midsection of the 99th percentile male which measures 18" x 23" and is used as a blocking element during outlet cover certification testing. The CPSC staff has further defined a minimum diagonal measurement of 29" to describe different outlet cover aspect ratios that would be difficult to seal. Based on these dimensions, outlet cover measurements in excess of 18" x 23" (or a diagonal measurement greater than 29") would provide a means to render the outlet 'unblockable' and subsequently, the sumps below (drains) would be inaccessible and unblockable providing the outlet cover remains in place. The implication is that if the outlet cover cannot be 'shadowed' by the solid blocking element the remaining open area of the cover will allow sufficient water flow to prevent the creation of entrapping forces.



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In reaching the definition for an unblockable drain, the characterization of a suction fitting is taken from the standard to include the sump and cover as a unit, along with all of the following:

1. The blocking element dimensions and the diagonal measure to define a minimum size requirement;
2. The need for the remaining open flow area of the cover, once shadowed, to provide sufficient flow to prevent entrapment; and
3. The general requirements (of the standard) for fasteners and fastening integrity (i.e., the cover must stay in place).