

15A NCAC 18A .2539 SUCTION HAZARD REDUCTION

(a) At all public wading pools that use a single main drain for circulation of water, signs shall be posted stating, "WARNING: To prevent serious injury do not allow children in wading pool if drain cover is broken or missing." Signs shall be in letters at least one-half inch in height and shall be posted where they are visible to people entering the wading pool.

(b) All submerged suction outlets other than vacuum ports shall be protected by anti-entrapment cover/grates in compliance with ASME/ANSI A112.19.8-2007 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs. All submerged suction fittings shall be installed in accordance with the manufacturer's instructions. Pumping systems that have a single main drain or single submerged suction outlet other than an unblockable drain, or which have multiple outlets separated by less than three feet measured at the centers of the cover grates shall have one or more secondary methods of preventing bather entrapment. Secondary methods of preventing bather entrapment include:

- (1) Safety vacuum release system which ceases operation of the pump, reverses the circulation flow, or otherwise provides a vacuum release at the suction outlet when a blockage has been detected, that has been tested by a third party and found to conform to ASME/ANSI standard A112.19.17 which is incorporated by reference including any subsequent amendments or editions. Copies may be obtained from ASME, P.O. Box 2300, Fairfield, NJ 07007-2300 at a cost of forty-five dollars (\$45.00);
- (2) A suction-limiting vent system with a tamper-resistant atmospheric opening;
- (3) A gravity drainage system that utilizes a collector tank;
- (4) An automatic pump shut-off system;
- (5) Drain disablement; or
- (6) Any other system determined by the U.S. Consumer Product Safety Commission to be equally effective as, or better than the systems in Subparagraphs (1) through (5) of this Paragraph.

(c) Prior to issuance of operation permits, owners of all public swimming pools shall provide documentation to the Department to verify suction outlet safety compliance. This documentation shall include:

- (1) Documentation of the maximum possible flow rate for each pump suction system. This shall be the maximum pump flow shown on the manufacturer's pump performance curve except where flow reductions are justified with total dynamic head measurements or calculations; and
- (2) Documentation that cover/grates meeting ASME/ANSI A112.19.8-2007 are installed in compliance with the standard and manufacturer's instructions. This includes documentation that each cover/grate on a single or double-drain pump suction system is rated to meet or exceed the maximum pump system flow and that cover/grates on a pump suction system with three or more suction outlets are together rated to always meet or exceed the maximum pump system flow with one drain completely blocked; and
- (3) Documentation that drain sumps meet the dimensional requirements specified in the cover/grate manufacturer's installation instructions.

(d) Operators of all public swimming pools shall inspect pools daily to ensure the drain covers are in good condition and securely attached. Missing, broken, or cracked suction fittings shall be replaced and loose suction fittings shall be reattached before using the pool.

*History Note: Authority G.S. 130A-282;
Temporary Adoption Eff. June 1, 1994 for a period of 180 days or until the permanent rule becomes effective, whichever is sooner;
Eff. October 1, 1994;
Amended Eff. May 1, 2010; January 1, 2006; February 1, 2004; April 1, 1999;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. July 20, 2019.*