



Division of Environmental Health

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State of North Carolina
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Department of Environment and
Natural Resources
Dee Freeman, Secretary

MEMORANDUM

DATE: January 15, 2009

TO: Local Health Departments
Public Swimming Pool Owners and Operators

FROM: James A. Hayes, Branch Head
Pools, Tattoos and State Institutions Branch

RE: Compliance with ASME/ANSI A112.19.8-2007 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs

As a result of the Virginia Graeme Baker Pool and Spa Safety Act, all public swimming pools are required by federal law to comply with the new American National Standard ASME/ANSI A112.19.8-2007 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas and Hot Tubs. The law requires existing pools to fully comply with the new standard by December 19, 2008.

North Carolina Rules Governing Public Swimming Pools already require compliance with the new standard only for single-drain public swimming pools with a drain smaller than 12 inches in diameter. By this memo, the Department directs local health departments to immediately suspend Operation Permits for any single-drain pool operating with a non-compliant drain less than 12 inches in diameter in accordance with rule 15A NCAC 18A .2539 which requires single drains smaller than 12 inches in diameter shall be protected with an anti-entrapment drain cover meeting ASME/ANSI A112.19.8M.

The Department is in the process of adopting the new standard for enforcement by local health departments on all other public swimming pools in the future. Enforcement of the standard on pools with multiple drains or single drains 12 inches or more in diameter will likely be delayed until the 2010 swimming season.

To verify compliance with the new drain safety standard, the Department will require proof of three things required by ASME/ANSI A112.19.8-2007. They are:

1. A drain cover/grate meeting the standard must be installed on all submerged suction outlets other than vacuum fittings. The cover/grate manufacturer's literature will verify the cover as compliant and will state the maximum safe flow rating for the cover/grate. Please save that document to prove compliance with this part.
2. The cover/grate must be placed over a sump (drain pot) meeting the cover/grate manufacturer's specifications. This must be either a manufactured sump with a model number recommended in the cover/grate manufacturer's installation instructions, or a sump certified by a Registered Design Professional to comply with the standard for field-fabricated drain systems. For that certification, all

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parts of the outlet pipe opening in the sump must be at least 1.5 times the diameter of that pipe below the bottom of the cover/grate. Sump model number and photographs can be used to document compliance for sumps listed in the cover/grate manufacturer's instructions.

3. The cover/grate and sump on a single-drain pool and each cover/grate and sump combination on a dual-drain pool must be rated to handle the maximum pump or system flow capable of being pushed by the pool pump. This can be demonstrated by the pump manufacturer's performance specifications showing the maximum flow the pump can produce is less than the cover/grate and sump are rated to safely handle. For pumps capable of exceeding the flow rating of the cover/grate or sump, head loss and flow calculations by a Registered Design Professional indicating that the system flow cannot exceed the safe flow rating of the cover/grate or sump will be required. For pools with three or more drains connected to the same pump, the remaining drains must handle the maximum pump flow or calculated system flow with any one drain blocked.

Pool owners are advised to fully evaluate these three requirements and be prepared to provide proof all three have been met. If there is any doubt, please have the drains evaluated by a Registered Design Professional. In North Carolina, a Registered Design Professional means a Registered Engineer or Architect qualified to prepare plans and specifications for public swimming pools.

Please begin this process as soon as possible to both comply with the Federal Law and to discover if construction will be needed to add larger drain outlets. This may help you to avoid a lengthy pool closure when this Department begins enforcement of the new standard.

Another issue related to this standard is a ruling by the U.S. Consumer Product Safety Commission (CPSC) staff that skimmer equalizer pipes, generally located on pool walls below surface skimmer openings, are submerged suction outlets and must have covers complying with ASME/ANSI A112.19.8-2007. Compliant covers to fit directly over those outlets are not yet available and the CPSC has recommended plugging those outlets until compliant covers are available. That recommendation conflicts with the North Carolina Rules Governing Public Swimming Pools, which require equalizers to protect the pool pump when water level drops below the skimmer openings. This Department has instructed local health departments to not deny Operation Permits for pools where the equalizers have been plugged to meet the new Federal requirement.

Another recommendation by the CPSC to disable pool drains as one means of compliance with the federal act should not be followed. Public swimming pool Operation Permits will be denied or suspended if pool drains are disabled. A rule change is being proposed which may allow pools to be designed to operate without drains in the future.